Wealth advice



Part I

The forces of disruption

Part II

The new-found value of customer insight

Part III

Leadership and strategic optionality









Editorial	04
Executive summary	06

The forces of disruption

- 10 01. Structural headwinds 12 02. An industry facing facing the wealth management industry
- disruptive change five key insights from other sectors
- 17 03. Taxonomy of new business models in wealth management

- 22 04. The inexorable rise of passive investing
- 26 05. The secrets of Vanguard's success, interview with **Andreas Zingg**
- 28 06. Why robo-advisory is the way forward for wealth management

- 07. Q&A with Bastian Lossen, CEO of Werthstein, a Swiss FinTech
- 08. Big data in wealth management: from investment consulting to true relationship management

The new-found value of customer insight

- 40 09. The relationship game: how well do you know your client?
- 42 10. How computational advisory will change the human advisory process in financial services, interview with Giles Keating
- 11. New strategies to affect behavioral change in wealth management, interview with Sille Krukow

- 46 12. The promise of gamification in wealth management
- 13. Building enduring client relationships in wealth management, interview with Alfonso Gómez

Leadership and strategic optionality

- 52 14. Leading in times of adversity - a view from the top, interview with Kristine Braden
- 54 15. Strategic optionality: The uncertainty of the "WHAT" and the challenge of the "HOW"



Editorial



Robert Ruttmann

he meaning of a Kodak moment is not what it used to be. Two decades ago, it referred to a precious human moment worth capturing with a photograph. Today, it represents the demise of an industry powerhouse that failed to effectively respond to the disruptive forces of new technological innovations (digital photography), changing consumer behaviors (smartphones substituting cameras), and new competitors entering the market (e.g. Apple, Samsung, etc.).

The wealth management industry today faces a similarly challenging market environment. New technologies are empowering consumers to expect more of their providers, enabling unprecedented degrees of transparency, and promising a much more personalized user experience. At the same time, regulators are trying to prevent consumers from being sold inappropriate (high-margin) products, which is accelerating the trend toward lower-cost products like passive funds.



The structural transformation represents a shift in the power structure from providers to regulators and to customers. This increasing focus on the customer is also the impetus for the research consortium Redesigning Financial Services (RFS). Founded by the Institute for Customer Insight at the University of St. Gallen (ICI-HSG) and the Department of Management, Technology, and Economics at the Swiss Federal Institute of Technology (MTEC-ETH), RFS is an interdisciplinary think tank based on the premise that a deep understanding of consumer behavior is key to navigating the next evolution in financial services.

In efforts to identify opportunities arising from the structural transformation, RFS researchers have defined eight key research clusters: Credit & Lending, Payments, Cryptocurrencies, Wealth Advice, Digital Capital Markets, RegTech, InsurTech and Innovations for Social Impact. This first publication on the Wealth Advice cluster entitled "Is wealth manage-

ment experiencing its "Kodak moment"?" will be the first in a series of publications that should serve to share knowledge and even help accelerate the structural change taking place in the industry.

We hope you enjoy reading this contribution to the dialogue, and invite you to join us in building a cross-industry ecoystem dedicated to improving the way financial services are delivered to clients in the future.

Robert Ruttmann,

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Founder of Redesigning Financial Services, Institute for Customer Insight, University of St. Gallen



Executive summary

- The confluence of technological trends, shifting client expectations, and regulatory change is reshaping the fabric of the wealth management industry. This change will not be a one-time event, but rather a continuous pressure to innovate that will shape customer behaviors, business models, and the long-term structure of the wealth management industry.
- Technology will commoditize large parts of the value chain, forcing incumbents to sharpen their value propositions. In this environment, the value of advice and customer experience is likely to emerge as a key differentiator.
- Client expectations will shift dramatically in the next five years. Informed by the effective delivery of highly personalized, seamless, digital services in other industries, clients will expect the same user experience from their wealth managers. Winning models will be those that successfully rely on client needs as a compass to navigate the complexity.
- Regulatory change is putting further pressure on fees. From North America to Europe, the list of regulatory changes is long and varied, but two things are clear: 1) providers will be increasingly discouraged from receiving commissions for selling high-margin products, making advice the key differentiator; and 2) providers will also face

- rigorous requirements to provide independent advice in the interest of the client with increasing cost transparency.
- Just as in other industries, the wealth profession today seems to be undergoing a wave of consumerization, inviting investors to expect greater product transparency and more competitive prices than ever before. For example, 2016 saw the biggest ever shift from highcost active products to lower-cost passive investment alternatives. As this trend continues, commissions are likely to be replaced by more transparent fee-based services.
- The outlook for active managers is challenging. Although some star active managers, such as Flossbach von Storch, will continue to win business, high fees and already elevated asset markets suggest that few active managers will produce returns to justify their significantly higher costs going forward. Underperformers are likely to see accelerated withdrawals.
- Disruptive change can offer enormous upside to firms willing to recognize shifting customer and industry trends early. There are five key insights from other industries: 1) Accept that instantaneous arbitrage is here to stay; 2) As services become commoditized, define a clear value-add; 3) Understand the growing primacy of personalization; 4) Recognize threats from outside the industry; and 5) Learn organizational ambidexterity.



- In this environment of structural change, a number of new business models are emerging, offering clients lowercost, faster, and increasingly sophisticated alternatives to traditional wealth managers. These new technologyenabled business models can be grouped into two categories: those that inspire customer empowerment and those promoting process innovation.
- One of the more promising trends robo-advisors automate many of the processes involved in the wealth management industry and achieve similar or better returns on average compared with human advisors, but at much lower costs. Assets invested in robo-advisors globally reached USD 200 billion in 2016, and are set to reach nearly USD 8 trillion by 2022. This growth is set to be driven by incumbents adopting and quickly scaling the technology
- For incumbents, robo-advisory technology can streamline costs, improve productivity and address the underserved mass-affluent markets. Start-up robo-advisors like Betterment and Truewealth are going to find it difficult to scale, and will need to differentiate their services to succeed. Those start-ups that offer easily replicated digital solutions may not survive.
- A winning model is likely to be a hybrid model, which

- integrates low human touch points with a robo-advisor. So, as incumbents shift some of their clients into low-cost automated solutions, their human advisors can shift focus to providing more expensive services to the wealthy client segment that have different needs than affluent clients.
- Robo-advisory services are also disrupting the traditional relationship triangle between asset manager, wealth manager and broker. In the US, we already see Vanguard an asset manager and Charles Schwab a broker offering wealth management services. This increasing industry convergence is set to increase competition and lead to further margin compression.
- FinTechs will not disrupt the wealth industry in the same way as Amazon and eBay did to retail. Instead, technology will become standard for the wealth profession as existing wealth managers learn from other industries and build up their own client-centric, tech-enabled capabilities.
- In the future, the interplay of advisors and machines will reshape the role of the advisor and the very fabric of the advisor-investor relationship. Rather than compete with machines, personal wealth advisors will need to think of creative ways to add value in the digital age. The most obvious way is through building enduring, authentic personal relationships.







01. Structural headwinds facing the wealth management industry

Giles KeatingWerthstein Institute

The core business model of wealth management, offering a personalized service, and premium, high-margin products with strong brand value, was robust to structural challenges over many decades. Even the impact of the global financial crisis and other emerging threats initially seemed to be containable, and indeed Asia offered a new dynamism. But in recent years, the scale of these disruptive forces has grown, and new ones have appeared, squeezing profitability sufficiently to threaten the very heart of the business model.

The emerging disruptive threats can be clustered into five main inter-related areas: regulatory pressure; trust, loyalty and brand value; operations and IT expenditure; strategic innovation; and staff incentives. The adverse impact of these structural forces compounds the drag on profits from low and even negative interest rates, which although ultimately likely to reverse, has persisted for an exceptionally long time.

Regulatory pressure

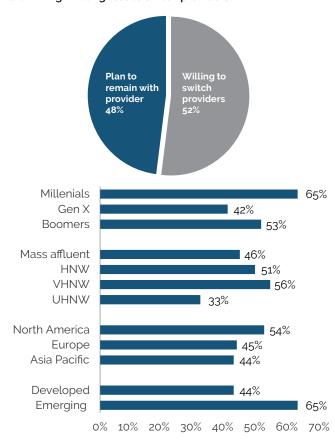
The process of increasing regulatory pressure began at least fifteen years ago, with a tightening of rules on money laundering and cross border tax compliance. More recently, stricter enforcement in many countries has led to a number of large and publicized fines. These long-overdue reforms have imposed a major compliance cost on wealth managers and also adversely impacted the workload and morale of client-facing staff.

Meanwhile, capital and liquidity requirements were modestly increased before the financial crisis, and in its aftermath raised substantially, with some countries, notably Switzerland and the UK, going well beyond international norms. Tighter capital requirements force institutions to hold more lower-yielding liquid assets, affecting the incumbent's ability to generate revenues, extend credit and maintain profitability.

Trust, loyalty and brand value

Brand value, arguably the most important asset of incumbent wealth managers, has been damaged by a series of related shocks. During the financial crisis, the need for state bails-outs in some cases upset the sense of security, while the large losses on some financial instruments and more generally on

Chart 1.1: High willingness to switch providers



Source: Roubini ThoughtLab

portfolios revealed the inadequacy of the solutions offered. Meanwhile, greater transparency, low returns and tax-compliant savings help make clients more aware of high charges. All this damages trust and reduces loyalty. In fact, according to a recent study conducted by Roubini ThoughtLab, over half of the respondents were willing to switch their financial services providers (see Chart 1.1). This shaken customer loyalty, makes it easier for previously distinct players to challenge the incumbents by offering elements of wealth management service. These players include brokerage firms, asset managers, online platforms, independent/external client management firms, and multi-family offices. Many of them, ironically, using the platforms and products of the incumbent wealth managers.

Operations and IT expenditure on legacy structures

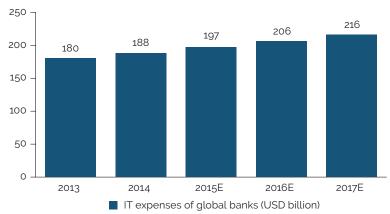
Global banks tend to incur some of the highest IT costs in the world, representing nearly 20% of their revenues on average¹. In fact, in 2016, banks globally spent over USD 200 billion (see Chart 2.2), which is larger than the size of some smaller European economies. Despite this large expenditure on IT, little is spent on true innovation. Indeed, a high proportion is spent on regulatory-driven change and on maintenance of complex legacy systems. As a result, when budget cuts are made to IT, there is simply no choice but to make cuts in innovation, given the small scope for reducing compliance and maintenance spend.

Innovation

The three main innovations affecting wealth management since the millenium have been, arguably, the rise of low-cost index funds, the growth of global online brokerages and, more recently, the appearance of robo-advisors. Major wealth managers have largely failed to seize the opportunities offered by the first two of these. Some even sold their low-margin index fund businesses to protect their high-margin models recognizing the forces of market consolidation.

Turning to the second innovation namely online brokerages, wealth managers often offer their own but at unsustainably high fees. Robo-advisors, the third innovation, typically offer automated portfolio construction, and wealth managers have started to enter this area. However, such facilities compete head-to-head with the core model of personal service and it is unclear whether the current strategy of offering clients a mix of both will succeed.

Chart 1.2: Increasing IT expenses



Source: Celent

Client-facing staff incentives

Traditional wealth management faces the fundamental dilemma that the personal service at the heart of its business often conflicts with the firm's strategy to sell high-margin products to its clients. This can make it difficult to align incentives. For example, employees are often incentivized to sell high-margin solutions to their clients, even though alternative solutions may exist that are better for the client. As long as the interests of the client, the financial advisor and the firm are not systematically aligned, it will be difficult to sustainably win back client trust.

Conclusion

In summary, wealth management relies on a business model of branded, personal service that is essentially non-scalable in terms of cost efficiency globally. Of the two elements at the heart of this model, brand value has been damaged, while a substantial portion of the premiums paid by clients for personal service is captured by the individuals providing it, rather than the institution. Given this formidable set of challenges, incumbent operators should focus on four key areas.

First, incumbents have to rebuild brand value, both by ensuring ample capitalization but also by embracing regulatory and pricing transparency. Second, incumbents should accept a lack of comparative advantage on IT and adopt more radical partnership or merger solutions with IT companies, so as to offer a competitive scalable back-end, including their own index products, to support the personal service offered frontally.

Third, incumbents should have an integrated internal/external coverage model, identifying those client segments best covered by in-house staff and reaching others by platform services to external client advisors, with incentives aligned across both groups and a clear marketing to end-clients of the difference in branded service packages. And fourth, rather than waiting passively for asset managers to expand into wealth management, the incumbents should take the fight the other way, by rapidly building or expanding their own low-cost fund management capabilities.

[1] "Optimus Primer: how technology is transforming the investment bank", Bank of American Merrill Lynch, 2016.

Structural headwinds

In recent years, a range of disruptive forces has grown in scale and scope, squeezing profitability sufficiently to threaten the very heart of the business model of traditional wealth managers. These forces can be clustered across five main themes: regulatory pressure; trust, loyalty and brand value; operations and IT expenditure; strategic innovation; and staff incentives. Given these challenges, incumbents should focus on three key issues:

1) repair brand equity; 2) partner with technology firms and 3) employ internal/external coverage models

02. An industry facing disruptive change– five key insights from other sectors



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isruption can be painful. Other industries provide a reminder of how painful the process can be — from Uber disrupting the taxi business to Apple changing the way people consume music to Airbnb shaking up the hotel industry. But disruption is not a one-time event risk. It is continuous pressure to innovate in the face of changing consumer behaviors, new technological innovations, and new competitors entering the market. Today, this pressure is rising fast, even affecting sectors previously insulated from disruption.

Historically, wealth management has been relatively immune to disruption. The reasons for this are threefold: first, a special regulatory status shielded the sector from too much competition; second, clients have historically been slow to switch providers, even in the face of high fees and in cases of unsatisfactory investment performance; and finally, opaque fee structures have made it exceedingly difficult for clients to compare pricing options among competitors. But now, the industry is ripe for change.

Signals of structural change in wealth management

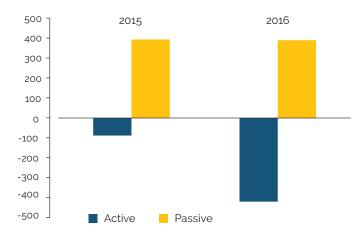
Just as in other industries, the wealth profession today seems to be undergoing a wave of consumerization. This focus on the end client is causing investors to expect greater product transparency and more competitive prices than ever before.

Signals of this structural change are difficult to ignore. For instance, 2016 saw the biggest ever migration of equity assets flowing from actively managed funds to passive investment products, suggesting a significantly higher cost awareness among investors (see Chart 2.1).

Another interesting signal of this growing cost awareness among investors is the flood of assets that the at-cost asset manager Vanguard attracted in 2016. With average costs of just 18 basis points for its products (of which one third are actively managed), Vanguard attracted more than USD 317 billion in 2016, while the rest of the industry faced net outflows (Chart 2.2). This trend towards low-cost solutions reinforces the idea that a wave of consumerization has empowered investors to expect greater transparency and more competitive prices than before. This trend could upend the economics of the industry, bringing enormous disruptive change.

Fortunately, as this threat of consumerization has become mainstream, more wealth managers are thinking about ways to improve the value they deliver to clients. And with the right response, disruption can offer enormous upside to firms willing to recognize shifting customer and industry trends early. The biggest opportunities will likely belong to firms able to extract key insights from disruptive events in other industries. To this end, we have identified five key insights from other industries that have experienced disruption in the past.

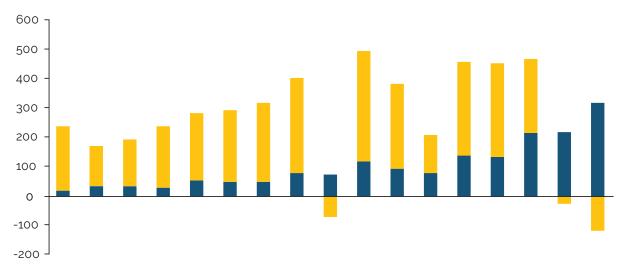
Chart 2.1: Investors flock out of active into passive funds. Flows for active and passive equity funds, globally (in USD billion)



Source: Morningstar Direct Asset Flows

Chart 2.2: Vanguard is the elephant in the room

Net Flows of U.S. Mutual Funds and ETFs, 2000-2016 (in USD billion)



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Vanguard

The rest of the U.S. fund industry

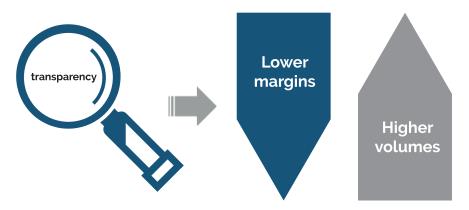
Source: Morningstar Direct Asset Flows

Accept that instantaneous arbitrage is here to stay

The first key insight refers to the importance of learning to live in a world in which online platforms have offered consumers instantaneous arbitrage or the ability to instantaneously check prices and seamlessly select the most attractive offering. A good example of how this tech-enabled transparency has affected an industry is the retail sector. Here, online platforms like Amazon have forced retailers with a physical presence, to match Amazon 's prices, with most major retailers following suit, causing average prices to fall, and sending many physical retailers out of business.

Clearly, the reality of instantaneous arbitrage in retail was and is painful for brick-and-mortar retailers, but the phenomenon is empowering to consumers. By spurring competition among incumbents, the consumer benefits from greater transparency, access to lower prices, a wider variety of goods, and better service. In this process, incumbents are forced to lower their margins, increase their volumes, and also to carefully re-evaluate their true value proposition beyond low prices (Chart 2.3).

Chart 2.3: Higher transparency squeezes margins, forcing incumbents to focus on volume

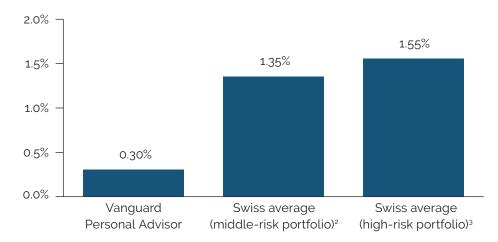


In the wealth management sector, a similar price matching trend may be on the horizon. For instance, modern robo-advisor technologies are already making fee structures more transparent. And for a good reason. Consider the world's largest robo-advisory service, Vanguard Wealth Advisor, which charges a mere 30 basis points for wealth management services (including human advisory when needed). As such offerings expand globally and become more advanced, existing cost structures for wealth management - which can be five times higher than the Vanguard offering (Chart 2.4) - are likely to come under increasing pressure, causing prices to fall.

Specifically, the growing transparency that comes with instantaneous arbitrage means that consumers are also likely to ask for more from their providers better service across more channels at a quicker pace and lower costs. And as investors begin to squeeze fees, commissions are likely to be replaced by more transparent fee-based services. The earlier incumbents respond to this new competitive environment, the better they will be able to use technology to lower operating costs and ultimately build volume by expanding access to previously underserved clients (i.e. affluent).

Chart 2.4: New offerings put pressure on fee levels

Annual management fee: Vanguard Personal Advisor versus average Swiss wealth mangement products



Source: Moneyland, RFS

2.As services become commoditized, define a clear value-add

The second key insight comes from the travel industry. Around the year 2000, the rise of online travel platforms Expedia, Ebookers and TripAdvisor disintermediated large parts of the tour operator value chain. At the same time, airlines and hotels started distributing capacity directly to consumers, after having sold seats and rooms to intermediary tour operators for decades. Suddenly, consumers were able to book flights and hotels online from home, and at lower costs than ever before. In short. there was no need to consult a travel operator any more.

A similar phenomenon is occurring in the wealth management space at the moment. With the proliferation of dozens of automated wealth advisors on a global scale (Chart 2.5), many wealth management services are at risk of being slowly but surely commoditized. The key threat arising from commoditization is that products and services become more similar from a buyer's perspective, causing customers to opt for the cheapest. This decisive focus on pricing structures is already evident among clients, and seems only to be accelerating, as suggested by a broad client survey (Chart 2.6).

So, just like tour operators packaging airline seats and hotel rooms for high margins were forced to consolidate, many of today's traditional wealth managers face a similar moment of truth. In a world in which automated wealth services are setting new standards in terms of transparency, convenience, and costs, incumbents are invited to creatively re-evaluate the real value-add they deliver to their clients that goes beyond merely competition on price.

In this environment, the service quality or advice will likely turn into the ultimate differentiator among wealth advisors, as also confirmed by the Roubini survey results (Chart 2.6). In the travel industry, the surviving agencies adapted to new market dynamics by embracing online and mobile channels to better serve their clients. For example, Thomas

Cook's omni-channel strategy allows customers to be served through whichever channel they prefer – from online to offline. This clear focus on the client's needs — rather than on products to sell - could be the saving grace for many wealth managers.

3. Understand the primacy of personalization to deliver value

The third insight refers to the growing primacy of delivering a differentiated customer experience. Consumers have become accustomed to the uncompromised customer focus pioneers like Amazon, Zalando and Google bring to delivering a simple, convenient and highly personalized user experience. So just like Spotify personalizes the music you hear, Netflix personalizes the movies you watch, and Amazon personalizes the selection of books that might capture your interest, wealth management clients also expect to be understood and appealed to in their full emotional complexity — and not crudely segmented according to wealth or age.

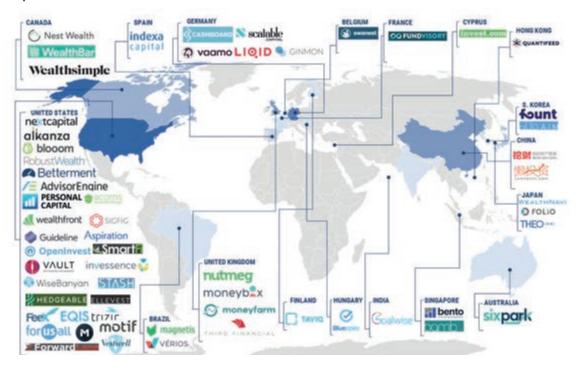
Indeed, the examples mentioned above suggest that a deep understanding of the drivers informing consumer behavior is necessary to deliver truly personalized wealth advice. To this end, advancements in customer analytics can help companies create more sophisticated psychographic profiles of their clients' aspirations in order to better understand and predict their behavior. But the power of customer insight and predictive analytics is not just about understanding consumer behavior but also influencing it. Indeed, many companies today already use big data techniques to build algorithms intended to influence the choices that consumers make.

For instance, by harnessing game-playing principles (gamification) or by carefully designing the presentation of

^[2] Swiss average is calculated from the average management fees of the 13 traditional wealth management products offered by the Swiss incumbents, including Migros Bank, Credit Suisse, Bank Coop, Neue Aargauer Bank, Zürcher Kantonalbank, Berner Kantonalbank, Valiant, Basler Kantonalbank, Raiffeisen, UBS;

^[3] A high-risk portfolio contains 80-100% equity and a middle-risk portfolio contains 40-60% equity.

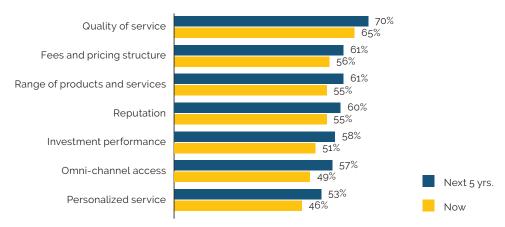
Chart 2.5: Global proliferation of robo-advisors



Source: CB Insights

Chart 2.6: Services and fees are decisive when selecting a provider

Annual management fee: Vanguard Personal Advisor versus average Swiss wealth management products



Source: Roubini ThoughtLab

different choices (choice architecture), companies can nudge human behavior in areas where traditional incentives may fall short. For example, in healthcare, choice architecture and gamification techniques are used to help people improve behaviors such as diet, exercise and other patient compliance topics. Such techniques are also being used by Vanguard to nudge clients to save (and invest) more for retirement.

Indeed, advanced customer analytics tools offer wealth managers new possi-

bilities to better understand their clients and to customize their value proposition. And in a world in which technology is commoditizing more products and making value chains more transparent, highly personalized advice may well turn into the ultimate differentiator for incumbent wealth managers. Customer analytics tools especially those building psychographic profiles can help shape this new value proposition.

4. Threats from outside the industry amplify the need for change

The fourth key insight from other industries is that incumbents increasingly face new competitive threats from previously unrelated sectors. For instance, the auto industry offers a clear example of how new competitors are challenging traditional boundaries of the car industry. Today, value in cars is shifting away from its traditional reliance on hardware and increasingly focusing on software and services with a focus on connected, autonomous and shared driving experiences. This shift is allowing companies that excel at code and algorithms like

Google, Uber and Apple to compete directly with car manufacturers for "ownership" of the driver experience.

In a similar way, non-traditional wealth services providers like technology firms could emerge as the main competitive threat to incumbents. Indeed, Apple Pay and Samsung Pay are already reshaping transaction and payment processing within the financial services sector. And in 2015, the Chinese online retailer Alibaba added Ant Fortune to its ecosystem of companies, which operates as an open-architecture platform for asset managers. According to Alibaba, the number of users on the platform has quickly grown to over 380 million people, representing assets under management of over USD 120 billion as of June 20164.

In the face of such strong industry convergence trends, the future of competition in the wealth management sector is likely to shift from company versus company within the industry to cross-industry ecosystem versus ecosystem. As such, incumbents will need to transform their strategies, processes, and and business models to become integrated, digitally driven businesses. Partnering with technology providers can accelerate this process, allowing incumbents to offer their clients a seamless, technology-enabled, personalized experience.

5. Learn organizational ambidexterity

The fifth key insight refers to the importance of a firm being able to manage its current business while simultaneously exploring new market opportunities in response to impending structural change. Stanford Professor Charles O'Reilly calls this ability "organizational ambidexterity". Firms unable to adapt in this way tend to be incumbents who prematurely dismiss new consumer trends as inconsequential relative to established services, concentrating instead on optimizing existing businesses by cutting costs. Kodak offers a pic-

ture-perfect example here, as it missed the shift to digital photography, leading to its 2012 bankruptcy.

In 1999, Kodak was the world's largest camera and film producer, generating profits of over USD 2.5 billion. However, when worldwide film sales declined rapidly in 2000, it became clear that structural change was imminent. In response, Kodak focused on cost reductions to preserve its profitable film business, even cutting experimental divisions. This started a painful downward spiral of desperate attempts to revive the core business of selling film.

Meanwhile, Kodak's main competitor Fujifilm followed a different path. Realizing that digital photography would not be very profitable, the firm developed a two-pronged strategy: first, maintain the profitable film business as long as possible, and second, prepare for the switch to digital by transferring existing expertise to new markets like flat-panel screens, cosmetics, and pharma. By the end of 2016, Fujifilm had annual sales of over USD 20 billion, while Kodak generated a mere 5% of this figure.

The example illustrates the importance of organizational ambidexterity in the context of disruptive change. In the same way, wealth managers should also maintain their existing businesses while simultaneously exploring new

market opportunities with their in-house skillsets enriched by external views. For instance, by leveraging the capabilities of automated wealth advice, incumbents can keep costs lower and thus gain access to parts of the mass market, effectively creating a "nursery" of clients whose financial wealth may grow over time.

Conclusion - act soon

This is a time of significant disruption in wealth management. Disruption will not be a one-time event, but rather a continuous pressure to innovate that will shape customer behaviors, business models, and the long-term structure of the wealth management industry.

Moreover, with regulatory changes also reshaping the industry, two themes are clear: first, wealth managers will be increasingly discouraged from receiving commissions when their clients buy products; and second, advisors will be forced to provide independent advice in the best interest of the client. With all these changes in the industry, the five key insights mentioned above can help companies navigate this new disruptive environment. But there is no time to lose.

Lessons learned from other industries

With all these changes in the industry, we identify five key insights learned from other disrupted industries that can help companies navigate this new disruptive environment:

- 1. Accept that instantaneous arbitrage is here to stay
- 2. As services become commoditized, define a clear value-add
- 3. Understand the growing primacy of personalization
- 4. Recognize threats from outside the industry
- 5. Learn organizational ambidexterity

[4] "Ant Financial", Alibaba Group, 2016, http://www.alibabagroup.com/en/ir/pdf/160614/12.pdf

03. Taxonomy of new business models in wealth management



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R. Jesse McWaters World Economic Forum

number of new disruptors are redefining how value is delivered to clients in wealth management. This disruptive change is being accelerated by ever faster computing power, advanced algorithms, machine learning, and the drive to automate activities that were once highly manual. From this environment, a number of new business models are emerging, offering clients lower-cost, faster, and increasingly sophisticated alternatives to traditional wealth managers.

And although these new models still represent a small part of the market, they do clearly bring greater competition and lower prices. Moreover, these new business models are directly addressing the key challenges facing the wealth management sector - from falling trust to changing client expectations to high fees and organizational inertia among incumbents (Chart 3.1). In this process, new innovators have already started redefining the standards of how value will be delivered to clients in the future. These new technology-enabled business models can be grouped into two big categories: customer empowerment and process innovation.

Chart 3.1: Structural challenges facing the industry



High fees: As many low-cost index providers disrupt the existing fee models, incumbents still charging high fees without a clear value-added will come under pressure



Customer expectations: Customers' expectations of personalization, efficiency and low costs continue to grow



Organizational inertia: Rigid organization structures and expensive, outdated technology infrastructure



Falling trust: Given increased transparency on cost and incentive structures, customer trust has been slow to recover since the financial crisis.

Source: Redesigning Financial Services

Business models built around empowering the client

A first group of FinTech business models focuses on empowering the end-client by virtue of cheaper, faster and more intuitive-to-use wealth management services, ranging from automated advice to social trading platforms. These first generation solutions cater to a broader customer base typically focused on affluent clients, offering access to a wide range of asset classes and investment tools that were previously reserved for the very wealthy client segments.

Financial literacy enablers

A subset of these firms empower clients by delivering financial education, equipping them with a set of skills that allow them to make better financial decisions, like for:

- Acorn: Helps clients save by rounding up purchases made with connected cards, and automatically investing the spare change into a portfolio of stocks and bonds.
- Meetinvest: Acquaints customers with basic investment concepts, risk control toolkits, tested investment strategies of renowned investors (e.g. Warren Buffet).
- Motley Fool: Provides customers with stock ideas, time-tested investment basics and market analysis by way of financial news, podcasts and videos.
- Stock Pulse: Creates sentiment indices based on data from social media platforms and news for individual companies, to keep clients better informed.

Aggregators

The second subset of FinTechs serve as account aggregators. These firms allow users to take a comprehensive overview of their portfolios by aggregating their



financial accounts held in a number of different places. This offers users a 360-degree view of their assets and liabilities, helping them make well-informed investment decisions as well as financial plans. Some well-known examples include:

- Mint: Allows users to track bank, credit card, investment, and loan balances and transactions in one place, as well as create budgets and set financial goals.
- Everwealth: Offers users a clear picture of their overall net wealth on one single user interface, and empowers them to plan for future expenses and reach savings goals.
- eWise: Connects users to a variety of sources including banks, pension funds, insurers, investment providers, online brokers, credit cards and loyalty programs.
- Canopy: Creates 360-degree
 customer profiles by centralizing data
 including currency, equity, bonds,
 private equity, real estate, cars,
 yachts, racehorses, etc.

Robo-advisors

Another subset of firms built around empowering the client focus on automated advice (or robo-advisors).

These models typically rely on databased intelligence, fast computing power, and some even on machine learning to offer clients low-cost wealth management services, including personalized portfolio construction, holistic financial planning, tax optimization, etc. Some examples include the following:

- Wealthfront, Betterment, Sigfig and True Wealth: Offer automated portfolio allocation, tax-loss harvesting services, investing in ETFs based on client's personal risk profile.
- Personal Capital: Offers users a holistic overview of their finances, including assets and liabilities. A cash flow analyzer helps users structure plan their cash inflows and outflows.
- Werthstein: Allows users to follow world-changing trends or "Zeitgeists" with the ability to seamlessly invest in these trends in a low-cost, risktailored way.
- Hedgeable: Uses machine learning and gamification for tactical investing solutions, investing in ETFs, private equity, Bitcoin, impact vehicles, single stocks, bonds, etc.

Social trading platforms

In addition to automated advice, another subset business model involves social trading platforms. These empower individual investors to build and share investment strategies and portfolios with other investors. Examples include companies like:

- eToro: Builds a global social community where customers are allowed to learn from, interact with, and automatically copy others' trades and portfolios in real time.
- Estimize: Crowdsources earnings and economic estimates on over 2,000 stocks to produce Estimize consensus numbers that beat Wall Street 74% of the time as published on their website.
- SprinkleBit: Produces the Value Prediction Index, a consensus view on whether a stock's price will rise, with each user's input weighted relative to her record.
- Covestor: Allows users to match their portfolios trade by trade to those of professional money managers.

Crowd investing

Another interesting related subset of

business models that empower the client is crowd investing. This archetype is different to the more popular crowdfunding (which relies on donations and pre-purchase of products), in that crowd investing allows investors to buy stakes in companies. Examples include businesses like:

- Crowdcube: Enables everyday investors to invest alongside professionals and venture capital firms in start-ups, early and growth stage businesses.
- CircleUp: Offers investors diligence materials and third-party data for each prospective investment target. Investors have the option to buy equity stakes.
- Kapilendo: The German start-up combines two financing models
 small business loans and equity crowdfunding.
- AngelList: Allows investors to invest in promising start-ups as part of a syndicate. The platform also offers a list of vacant positions at start-ups..

Algorithmic trading platforms

The last business model subset empowers the client by using advanced computing power, big data, and online trading platforms to offer retail clients access to algorithmic trading capabilities. Catering for users with and without programming knowledge, the platform offers skills to build, test and execute trading strategies in a "drag and drop" manner. Examples may include firms like:

- CoolTrade: Offers automated trading on its point-and-click noprogramming-required robotic trading system, designed to simplify strategy and eliminate human error.
- Algofast: Software allowing users to execute automated trades, which are triggered in response to predetermined economic and corporate indicators.
- FxPro Quant: Allows users to program trading algorithms based on their own rules and visualize strategies automatically.
- Quantopian: Provides a free platform for talented investors to write investment algorithms, which includes monthly competitions to get paid for successful algorithms.

Business models built around process innovation

A second group of new business



models focus not on the end-client, but on delivering process innovation for incumbent operators. These providers use advanced technologies to externalize, consolidate and commoditize processes that were previously considered core capabilities. And although the outsourcing of noncore processes (e.g., HR, finance) is nothing new, a new breed of innovators relying on advanced analytics, natural language applications and cloud computing is enabling the next generation of efficiency gains.

A good example of how some processes are being reevaluated can be seen in the management of research and market data. Before, this area was considered a critical internal competency. But as external providers from Bloomberg to Morningstar became more adept at data analytics, many incumbents started outsourcing processes previously considered core. So while data collection is already being externalized, other functions from transaction investment strategies and execution to monitoring to risk management and even compliance are likely to follow.

Investment strategies and execution redefined

New technologies are reshaping investment strategies and execution functionalities in wealth management in remarkable ways. The incumbent system still requires a labor-intensive process of hypotheses testing and trial-and-error practices before implementing a trading strategy. This can be dramatically simplified by advanced-analytics-driven, cloud-based platforms that automated trading and execution strategies, as conducted by the following firms:

- Ayasdi: Topological data analysis to draw out correlations and outliers from big data to inform hypothesis and trading strategy development.
- Kensho: Automates the modelling

of investment scenarios to support decision makers with real-time projection of performance under various outlook assumptions.

- Centrifuge Systems: A provider of business intelligence software that aims to help institutions discover insights, patterns and relationships hidden in their data, which help optimize investment strategies.
- Predixion Software: Its cloudbased analytics platform Predixion Insight provides real-time predictive analytics at the decision point in order to improve investment outcomes among others.

New ways to manage risk

Another cluster of new business models are simplifying risk management processes. Before, analysis was typically done by middle and back office functions with intermittent reporting to the front office. However, today's innovators allow the front office to directly access automated risk models in real time via user-friendly interfaces. This reduces turnaround time, avoids human errors, and enables much bigger capacity, as shown by:

- OpenGamma: Open source platform that is free-of-charge to provide real-time market risk management analytics to buy-side, sell-side and clearing institutions.
- UnRiskOmega: Platform offering innovative risk visualization and advisory tools to enable risk and regulatory compliant wealth management services
- Riskdata: International company that provides buy-side financial institutions with risk management solutions through a local or cloudbased software.
- CALYPSO: provider of an integrated suite of trading and risk applications that is used by banks and other

players in the world's financial markets.

Compliance and due diligence redesigned

Another function that was previously considered core but today is also under reevaluation is compliance, including due dilligence processes. Today, compliance processes assume a large number of resources for incumbents. But a new breed of centralized compliance monitoring providers for specific types of regulations promise to make the compliance and monitoring process more efficient and costeffective. Examples include:

- FUNDAPP: Organizes regulatory data via a cloud-based service to automate shareholder disclosure and monitor restrictions across over 100 regions on a daily basis.
- Redkite: Provides real-time financial markets surveillance solutions, including detection of suspicious trading, fraud, market abuse, and manipulation.
- Trustev: Provides online fraud prevention solutions by scanning transactions in real time to determine whether or not they are real.
- AQMetrics: Delivers high-quality and integrated regulatory risk and compliance management solutions.

Conclusion

This new wave of technological innovations is already affecting the way wealth management services are being delivered. The examples discussed above represent two key trends: the increasing empowerment of the end-user, and the commoditization of previously high-value services. The effects of the commoditizing forces are likely to lower costs across the industry, forcing incumbents to sharpen their value propositions (Chart 3.2).

Chart 3.2: A framework for future value drivers



Low-cost

The cost of receiving advisory and management services will decrease as automation lowers the operating costs and new disruptive entrants spur competition in the market



Accessibility

More sophisticated wealth management services will become available to a broader customer base.



Transparency

Customers will gain greater visibility into their financials and how their money is invested, and given opportunities to seamlessly adapt to better offers, lowering loyalty and costs.



Personalization

As algorithms used become more sophisticated, the degree of customization will increase significantly, improving the value for the end-client.



Contextualization

Online and mobile channels will be increasingly leveraged to interact with customers and deliver higher value services, offer services that are immediate and highly contextualized.

Source: Redesigning Financial Services

New technologies and new business models

- a. A number of technology-enabled business models have focused on customer empowerment and process innovation, redefining how value is delivered to clients in wealth management.
- b. Wealth firms are targeting smart technologies that can provide them with greater differentiation in the future. Among others, big data, predictive analytics, machine learning, natural language processing (NLP), sentiment analysis and web collaboration tools are the most important ones.



04. The inexorable rise of passive investing

By now, it is common knowledge that passive investing is on the ascent. Last year alone, flows into passive funds outpaced active funds at a rate of 6 to 1. While these headline figures are certainly staggering, many exceptions to this trend still exist around the world. Today's exceptions and nuances offer clues for how to expect the asset management industry to evolve in the coming years.

Lee DavidsonMorningstar, Inc.

Investors prefer passive (sometimes)

In many ways, 2016 was as unpredictable a year as we've had in recent memory. But the continued rise of passive investing was not among the surprises. Indeed, if anything, flows into passive

vehicles appear to be accelerating globally rather than showing any signs of slowing down.

At the top-line, active funds gained USD 103 billion while passive funds gained USD 624 billion⁵. But these top-line fig-

ures blur the more informative patterns and exceptions that exist beneath the surface. In particular, we see stark differences between the flows into passive when broken down by asset class and by region as revealed in Charts 4.1 and 4.2.

Chart 4.1: Percentage of Assets in Passive Funds, Equity

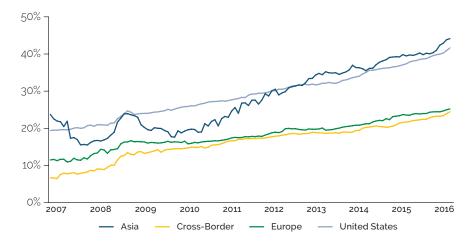
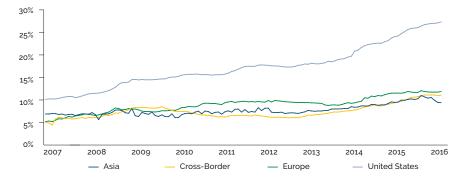


Chart 4.2: Percentage of Assets in Passive Funds, Fixed Income



Source: Morningstar Direct Asset Flows

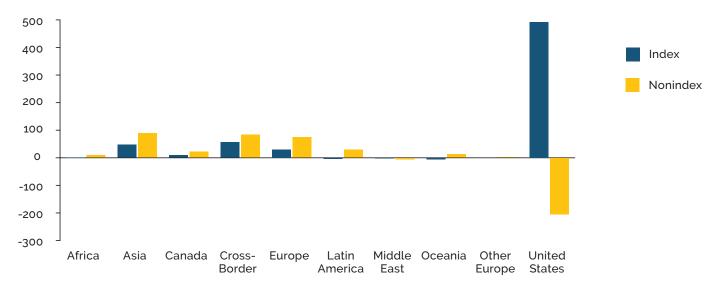
[5] 2016 Global Asset Flows Report, Morningstar

Intuitively, the asset-class patterns make sense and probably could have been anticipated by many. Active managers have seriously struggled to generate alpha in more traditional and liquid equity categories, whereas active managers in fixed income asset classes have fared better. The illiquid and over-the-counter nature of the fixed income markets

probably contributes to active managers' ability to generate alpha. Equity prices, on the other hand, tend to be much more efficiently priced since they trade more transparently on exchanges, which reduces the opportunities for alpha generation of active strategies. By implication, most investors should be less willing to invest with and pay for ac-

tive managers in equity categories compared to fixed income categories. This also implies that active managers may still receive inflows as they still have a role to play in the portfolio construction process. A fact that is underscored by Chart 4.3.

Chart 4.3: Worldwide Flows By Region, USD Billion



Source: Morningstar Direct Asset Flows

Looking first at the equity market, we have witnessed US-domiciled AUM in passive funds on a steady uphill climb since 2007. At its current trajectory, we will likely see the 50% mark of all US-domiciled AUM in equity funds to be passively managed by the year 2020. Something we would have thought unthinkable a decade ago. Interestingly, Asia-domiciled AUM has been rising at an even faster pace and could hit the 50% this year – much sooner than the US. Meanwhile cross-border and European assets have only just reached the 20% mark.

On the fixed income side, we see much less willingness to place assets in passive vehicles globally. In most markets, we see that the AUM in fixed income passive products has remained roughly unchanged over the past 10 years – hovering between 5% and 10%. The sole exception being the US market where investors have slowly begun to allocate

to passive fixed income funds, albeit at a slower rate.

Currently, we see a little over a quarter of the AUM in the US being managed passively – much lower than on the equity side. Additionally, even in Asia where passive investing has been on fire on the equity side, we see a great deal of reluctance to adopt that mode of investment in the fixed income asset class.

But what accounts for the regional discrepancies? In particular, why is the US more willing to adopt passive than other locales? The regional differences are most understandable when considered from the perspective of financial market regulation and the delivery of advice. The US has been quicker to adopt fee-based models for financial advice, which more closely align advisor and investor interests.

The regulation change and move to fee-based models creates an environment where passive funds garner more flows. The logic is as follows. Higher client AUM implies higher fees. Anything that reduces the client's AUM reduces fees. This incentivizes the advisors to be more interested in products that charge a lower fee. In essence, advisors are incentivized to lower all costs but their own. Cheaper products tend to be passive investments but can also drive advisors towards low-cost active.

We expect these regulatory trends to continue globally as we've seen the UK move towards similar reform with RDR and the expected adoption of MiFID II in Europe in 2018. Both of these regulatory changes will result in increased flows to lower-cost investment options. As a result, we would expect to see the same patterns play out in Europe that we've seen play out strongly in the US over the past decade.

Chart 4.4: Annual Net Flows for US Active Funds by Fee Quintile, USD Billion



Source: Morningstar Direct Asset Flows

Lower willingness to pay for active management

Making this story all about product construction, however, misses another important nuance. Within active funds, we see a dramatic shift away from expensive funds and into cheaper funds. The proliferation of passive funds and the underperformance of active funds relative to benchmarks has effectively lowered investor's willingness to pay for active management as a whole. It does not mean that all investors shun active. But it does suggest that investors are willing to pay much less for the active

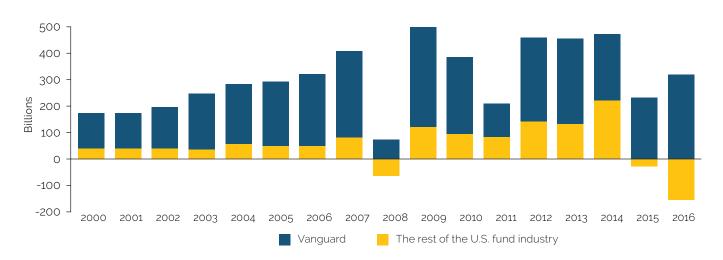
management service than they used to as evidenced by Chart 4.4.

We have observed a significant shift in net flows into two different groups – the lowest cost quintile and the four more expensive quintiles. By definition, the lowest cost quintile only contains 20% of active funds whereas the four more-expensive quintile group will comprise 80% of active funds. From 1990 to 2013, we see that both groups experienced net inflows, with the exception of 2008 when both groups experienced net outflows. Beginning in 2014, however, we begin to observe investors withdrawing

great quantities of money from the more expensive active funds.

Certainly, a great deal of these outflows are redirected into passive instruments, but we can also see that cheap, active funds are beneficiaries. It's possible that this trend could represent the increased awareness of expensive, closet-indexing products. Closet-indexers are usually defined as those products with low tracking error or active share relative to their benchmark. Usually these funds also have negative alpha after fees. In the past few years, one could argue that investors have been much more diligent

Chart 4.5: Vanguard versus the world, annual flows to US mutual funds and ETFs



Source: Morningstar Direct Asset Flows

in ridding their portfolios of these expensive, "benchmark-like" products. The flows away from expensive to cheap active funds in Chart 4.4 may fit with this hypothesis.

Vanguard is eating the US fund industry

The indexing business is likely to become increasingly consolidated, whereas the active management industry will allow for a large diversity of players. Since the primary driver of flows for index funds is fees, the low fee providers attract higher flows then the competition. These higher flows allow the firms to continue to lower fees, which only drives more flows. This scenario is how Vanguard became the global leader in indexing. Chart 4.5 shows that Vanguard's US flows have steadily risen every year, and in the last two years the rest of the US competition is seeing outflows. Stunningly, in 2016, Vanguard attracted an average inflow of over 1.1 billion dollars per day. These are the largest flows we've ever seen in the industry for a single fund family.

Looking ahead

These trends suggest we'll experience seismic shifts in the active management industry. In response to the flow patterns in the US, asset management firms are more likely to merge to try to lower costs. Unfortunately, merging two

Rise of passive investment

Passive investing is on the ascent. In 2016, active funds gained USD 103 billion while passive funds gained USD 624 billion. The fact that investors are becoming more cost-conscious seems to be a structural trend showing few signs of slowing down.

firms with declining assets only helps in the short term, unless more radical changes are made. This should move the US to a competitive equilibrium of a few, large asset managers rather than many boutique firms. As the advice industry moves towards fee-based models in Europe with MiFID II, the trend towards passive and low-cost active will accelerate. These same patterns that have played out in the US will likely play out in Europe but with a time lag of five to ten years or more.

At the moment, the global industry seems to be in denial about the current state of affairs. We have not seen firms with large active fund line-ups cut fees aggressively to remain competitive in the marketplace. Instead, it looks like they are holding out hope for a string of strong performance to stem the outflows. All these trends place the active fund management industry at a

true crossroads. It is not clear what the chosen road will be.

As we've shown, the rise of passive investing has many nuances and exceptions. But what is clear is that the general trend towards lower-cost fund management is strong and shows no sign of slowing down. Active management is not dead. In fixed income and in the Europe/cross-border markets, active management continues to hold the majority of investor assets. Furthermore, the growth rates of passively-managed AUM in these areas are not staggeringly high. Nonetheless, it is clear that investors are becoming more cost-conscious. They appear to be less willing to pay for active management than they used to be. This will certainly have long-lasting ramifications for the fund industry and the advice business as a whole in the years to come.



05. The secrets of Vanguard's success, interview with Andreas Zingg



Andreas Zingg Vanguard

In 2016, Vanguard attracted an average inflow of over 1.1 billion dollars per day, according to Morningstar. These are the largest flows we've ever seen in the industry for a single fund family. Andreas Zingg, head of ETF distribution management for continental Europe, Vanguard, shares the secrets of Vanguard's success.

Redesigning Financial Services (RFS): Costs for many financial products have come down over the last few decades. How do Vanguard's costs compare to those of other asset managers?

Andreas Zingg (AZ): That's right. At Vanguard, lowing costs for investors is the primary purpose of our business. Today, Vanguard manages USD 3.9 trillion in assets with an average expense ratio of just 0.18%. Compared to our industry peers, our average costs are more than 80% cheaper than the industry average of 1.01%.

Moreover, as our business continues to grow in volume, our commitment is to continue passing the savings we generate from our growing scale on to our investors in the form of lower expense ratios. For instance, during the 2015 fiscal year, Vanguard passed on aggregate cost savings of about USD 225 million to clients in more than 200 fund shares. And as we continue to grow, our costs will become even cheaper for investors, since our business model is one that operates at cost.

RFS: With the benefit of seeing Vanguard from the inside, what would you say is the secret to Vanguard's success?

AZ: In my opinion, the secret to Vanguard's success is clearly the ownership model. This client-owned structure also goes hand-in-hand with the directive that the business has to operate at cost. This means that Vanguard can only charge its clients (and owners) enough to cover its operating costs. Any residual money is used to lower the expense ratios our clients pay us.

We have been doing this for forty years now, and investors are realizing that lower fees mean better outcomes. That's the principle on which Vanguard was founded, and that's also the principle that defines our company's DNA today — lower fees mean better outcomes for the investors that place their trust in us.

RFS: Both investors and other money managers often speak of the "Vanguard effect". What does this mean, exactly?

AZ: It's actually a catchphrase that Morningstar coined when we opened our London office. They use it to describe the tendency for some of our competitors to drop their expense ratios on select index funds and ETFs in response to our presence in the market. We see this as a positive effect, not least because clients benefit from this overall trend toward lower costs.

RFS: Some commentators have accused Vanguard of initiating a "race to the bottom" in costs, thus crippling the industry as a whole. What are your thoughts on this?

AZ: I would respectfully disagree. In fact, our funds reflect, as closely as possible, the true costs of investing. As our scale has increased, we've been lowering costs, something we've been doing consistently for 40 years. This is good news for investors, and it invites fund managers to operate more efficiently in the interests of the investors they serve.

Moreover, it is also important to note that lower-cost investments have tended to outperform higher-cost-alternatives. After all, gross return minus costs equals net return. Every dollar paid in management fees, trading costs, and taxes is a dollar less of potential return for clients. As such, we will continue to try to lower our costs, because we believe lower costs are in the best interests of the client, who is also our most important stakeholder.

RFS: Do you see this as the end of active management?

AZ: We hope not. No less than a third of our assets under management are actively managed! In all seriousness, we see the issue as being one of low-cost vs high cost, not as active vs indexed. We saw substantial positive net inflows into our actively managed strategies in 2016. Indexing is the most efficient vehicle to connect everyday investors to broad capital markets, and the trend towards indexing is beginning to take hold globally. However, it's not the only way to invest, and for those with a higher appetite for risk, active strategies offer a chance to outperform the market. However, I do think that costs for active management will come down in the future.

RFS: With trust levels in the industry in decline, how has Vanguard been able to sustain client trust?

AZ: I believe our ownership model offers a source of trust. As mentioned before, as a mutual fund, there is no potential conflict between what might be in our interest as a business, and the interests of our clients. As such, we are never under pressure to chase assets, cyclical trends or "hot" products. Another potential source of trust is the culture we maintain within our business. We devote a lot of time and attention to making sure our employees are the right fit for Vanguard, that their interests are also aligned with our primary purpose of doing what's right for our investors.

RFS: Vanguard also maintains the largest robo-advisor in the world. What are the benefits of this approach, and how have clients responded?

AZ: Our Personal Advisor Service is actually a hybrid advice program. Like robo-advisors, it uses low cost, broadly diversified products, and emphasizes prudent portfolio construction. However, it offers more than what an algorithm can provide. We believe the human element of an advisor interaction is a key component to addressing an investor's individualized goals and providing ongoing behavioral coaching. The judgment and ongoing guidance of a human advisor can make an important difference in a client's investment outcomes. It's used in the US by a growing segment of our retail client base who prefer not to go it alone. Since the launch in May 2015, the service's assets have grown to more than USD 50 billion.

RFS: Can you discern any structural trends in the way people are looking to invest?

AZ: We are increasingly seeing investors gravitate to a low-cost, disciplined, balanced, and long-term approach. The growth in indexing has been a reflection of that.

RFS: Historically, Vanguard has been very US-centric, with nearly 95% of the firm's customer base being in America. What are the reasons for this historical weakness outside of America, and what can be done to strengthen the firm's global footprint?

AZ: Growth has always been an outcome for us, rather than a goal, including in the US. I'd also say that we've made significant strides as a global organization. We now have offices in 12 international locations, and have invested heavily in globalizing critical functions — investment management, IT, Legal, HR, and fund accounting — in response to client demand. Certainly, we believe our value proposition knows no geographic boundaries. We are committed to giving investors everywhere the best chance of investment success.

RFS: Do you expect a wave of consolidation in the industry, as investors become increasingly empowered by web-enabled platforms allowing them to compare manager costs?

AZ: We may see some more consolidation, but largely as a result of product proliferation. According to ETFGI, today there are over 6,000 ETF products on the market globally. More and more ETFs are being launched that offer access to niche areas of a market or asset classes, such as Asian real estate or gold mining companies. While these may play a role in some portfolios, most investors are better served by broadbased, well-diversified investments. The volume of specialist strategies and products could lead to fund consolidation or closures in the future, a trend we have seen in the US for some time.

06. Why robo-advisory is the way forward for wealth management



Robert Ruttmann University of St. Gallen



Luting Ye University of St. Gallen

nvestors are challenging the traditional model of delivering financial advice. Historically, the advisory process has involved an advisor examining a client's financial situation, and then recommending an investment strategy. In exchange for this financial counsel, wealth managers typically charge their clients fees of 0.5% to 2% of their clients' assets each year⁶. And since human advice is expensive, these fees were long considered standard and undisputed – even in the context of unsatisfactory net returns. Until now.

Today, technology is tackling two of the biggest weaknesses in the traditional model: human errors and high advisory fees

for human counsel. These new technologies – or robo-advisors – automate many of the processes involved in the wealth management industry and achieve similar or better returns on average compared with human advisors. On the one hand, robo-advisors use algorithms to manage assets and thus eliminate costly human errors like selling after a market tumble, trading too often, or believing one can regularly beat the stock market. And on the other hand, with annual fees typically ranging from 0.15% to 0.5% (Table 6.1), they charge just a small fraction of the costs clients pay for human advice.

As such, the potential for robo-advisory services to disrupt the enormous wealth management industry is significant. Indeed, the most popular robo-advisory platforms today (Table 6.1) use algorithms to manage users' investment platforms, offering services like matching portfolios to risk preferences, rebalancing, dividend reinvesting, and even tax loss harvesting (i.e. optimizing capital gains tax liabilities by timing the sales of securities). The execution of all of these tasks is done faster, more precisely and more cost-effectively than by humans. This is also the main premise of the value proposition: delivering wealth management in more transparent, seamless and cheaper ways than the incumbent business model.

Table 6.1: Overview of the world's 12 largest robo-advisors

	Players	Year founded	Min. investment	Products and services	Advisory fee	AuM (USD bn)	Country
1	Vanguard Personal Advisor	2015	USD 50,000	Goal-based planning; diversified asset allocation (ETFs); portfolio rebalancing; access to financial advisors	0.30% p.a.	47.0	US
2	Schwab Intelligent Portfolios	2015	USD 5,000 for pure automation	Diversified asset allocation (ETFs); automatic portfolio rebalancing; tax loss harvesting; dividend reinvestment; access to financial advisors	0	10.2	US
3	Betterment	2008	О	Diversified asset allocation (ETFs); automatic portfolio rebalancing; tax loss harvesting; dividend reinvestment	0.15% - 0.35% p.a., depending on investment volume;	7.4	US

^{[6] &}quot;Financial Advisor Fees 2017 Report", http://www.advisoryhq.com/articles/financial-advisor-fees-wealth-managers-planners-and-fee-on-ly-advisors/And industry average wealth manager fee?

4	Wealthfront	2011	Cut from USD 5,000 to USD 500	Diversified asset allocation (ETFs); automatic portfolio rebalancing; tax loss harvesting; dividend reinvestment	0-0.25% p.a. depending on investment volume	5.0	US
5	Personal Capital	2009	Cut from USD 100,000 to USD 25,000	Fully customized financial goal/retirement planning; account aggregation; asset allocation; portfolio rebalancing; tax loss harvesting; access to financial planners	0.49% - 0.89% p.a., depending on investment volume	3.4	US
6	FutureAdvisor	2010	USD 10,000	Holistic portfolio management/account aggregation; diversified asset allocation (ETFs); automatic portfolio rebalancing; tax loss harvesting; dividend reinvestment; oncall financial advisors	0.50% p.a.; free for college saving accounts	1.0	US
7	Nutmeg	2011	GBP 500	Goal-based planning, diversified asset allocation (ETFs); automatic portfolio rebalancing; dividend reinvestment	0.3% - 1% p.a.; depending on the investment volume	0.8	UK
8	AssetBuilder	2006	USD 50,000	Automatic investment in bond indices, automatic portfolio rebalancing; on-call financial advisors	0.2% - 0.45% p.a.; depending on the investment volume	0.7	US
9	Wealthsimple	2014	0	Goal-based planning, diversified asset allocation (ETFs); automatic portfolio rebalancing; dividend reinvestment; ondemand financial advisors (via phone, text message, email or video chat)	0.35% - 0.5% p.a.; depending on the investment volume	0.6	Canada
10	Financial Guard	2009	USD 1,000	Diversified asset allocation (ETFs); automatic portfolio rebalancing; tax loss harvesting; dividend reinvestment	USD 149.95 per year or USD 15.95 per month	0.5	US
11	Rebalance IRA		USD 100,000	Diversified asset allocation (ETFs); automatic portfolio rebalancing; tax loss harvesting; dividend reinvestment, tax optimized portfolio design	0.50% p.a.	0.4	US
12	Scalable Capital	2014	EUR 10,000	Diversified asset allocation (ETFs); automatic portfolio rebalancing; dividend reinvestment	0.75% p.a. (including trading costs)	0.1	Germany

Source: Company information, statista.com (AuM data as of Feb 2017)

There are currently two main types of robo-advisory platforms aimed at consumers. The first is the stand-alone robo-advisory platform like Wealth-front, which provides automated, direct-to-consumer, algorithm-based portfolio management without intervention from human advisors. Customers typically answer questions online about their risk appetite and investment goals, and the robo-advisor subsequently builds a psychographic profile of the customer, and translates this into a

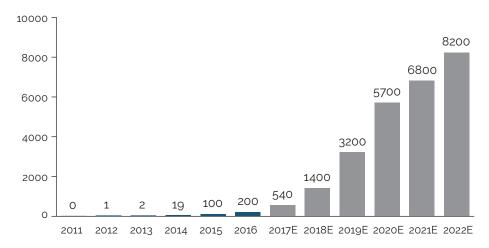
uniquely corresponding investment portfolio across several asset classes and currencies. Over time, the robo-advisor continues to interpret incoming data from users to automatically adjust the portfolio.

The second robo-advisory platform is the hybrid advisory model, which simply combines a robo-advisor with the services of a traditional human advisor. The advisor typically asks the client questions about risk appetite and her investment goals, and uses the answers to create a portfolio. The portfolio is then managed and adjusted by a robo-advisor, with the broker checking regularly to ensure it complies with the user's preferences — Vanguard Personal Advisor — is a prime example of the success of a hybrid model that offers significantly lower costs, more convenience and greater transparency than existing business models.

A revolution likely to be driven by incumbents

In fact, this value proposition offered by robo-advisors has already attracted a lot of investor attention. This growing attention has also translated into rapid growth in assets managed by both stand-alone robo-advisory firms like Betterment and Wealthfront, as well as established players offering automated financial advice like Vanguard and Schwab. In fact, since 2012, assets invested in robo-advisors globally have increased by a factor of 20, reaching USD 200 billion in 2016. Moreover, looking further ahead, this figure is expected to significantly grow to over USD 8 trillion in projected assets under management by robo-advisors in 2022 (Chart 6.1).

Chart 6.1 Assets managed by robo-advisors set for tremendous growth AuM of robo-advisors, globally (USD billion)



Source: HSG, Aite, Credio, Business Insider

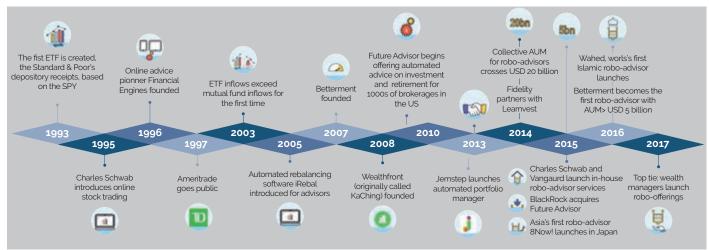
And although start-ups like Betterment and Wealthfront were the first to launch modern robo-advisory services about 10 years ago (Chart 6.2), and have subsequently grown the assets they manage to over USD 7 billion and USD 5 billion, respectively, these brands are unlikely to drive the super-normal growth we expect from the industry over the next five years. On the contrary, the real catalyst for growth is likely to come from legacy firms adopting and scaling robo-advisory technology among their existing

client network, either by in-house development or partnerships.

For instance, Vanguard launched its own robo-advisor — Vanguard Personal Advisor — in May 2015, and today records assets of no less than USD 47 billion. Unsurprisingly, Vanguard is the world's largest robo-advisor (Chart 6.3), a feat the firm achieved instantaneously when it launched its Personal Advisor Service by transferring USD 10 billion of existing assets to the new platform.

Charles Schwab is another incumbent that launched its own robo-advisor in 2015, Schwab Intelligent Portfolio, which is now the second largest globally. And, just recently, Schwab announced the 2017 launch of a second robo-advisor, Schwab Intelligent Advisory, which offers a hybrid model. This growing concentration of robo-advisory assets among incumbents is a precursor of things to come.

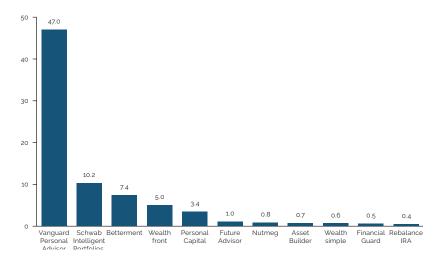
Chart 6.2: The digital evolution of automated wealth services



Source: BURNMARK

Chart 6.3: The largest robo-advisors dominated by incumbents

AuM of the world's largest twelve robo-advisors (USD billion)



Source: Company information, statista.com

Robo-advisory services rapidly becoming a necessity for incumbents

Incumbents have good reason to be quick to respond to the robo-advisory trend. Most importantly, robo-advising services introduce much lower operational costs to the traditional wealth management model. These lower costs allow incumbents to increase their productivity levels, widen their product portfolio, and to extend their serves to a much broader range of clients. This latter point is particularly relevant

because customers with less than USD 250,000 are barely served by traditional wealth managers, and those below USD 100,000 are not served at all. The opening up of the latter market alone represents access to assets valued at over USD 40 trillion⁷ globally, according to the global wealth report 2016, Credit Suisse, November 2016, representing a big opportunity for incumbents.

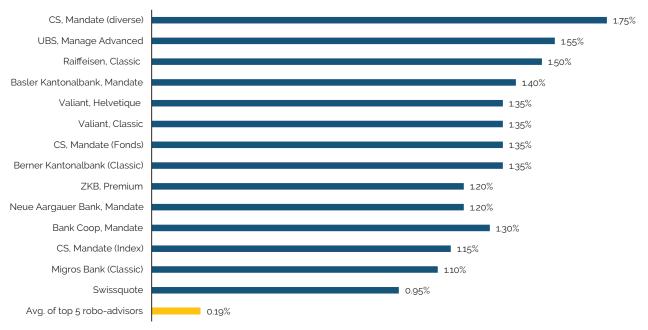
Such prospects mean that launching robo-advisors is rapidly becoming a

necessity for legacy institutions. And although asset managers like Vanguard, Charles Schwab and Blackrock (with its 2015 acquisition of FutureAdvisor) have been first to seize the opportunity, the second wave response to integrating robo-advisory services is likely to come from private banks. For example, UBS announced in October 2016 that it is set to launch its SmartWealth robo-advisor in the UK in 2017, accessible to investors with GBP 15,000 in assets, which is significantly lower than the previous threshold of GBP 2 million. And, as more clients warm up to the idea of robo-advisory, more incumbents will be forced to join the party too.

Client reception likely to reach a tipping point soon

Although most clients don't yet really know what a robo-advisor actually offers, survey results suggest that no less than 75% of surveyed bank clients are "very likely or somewhat likely" to consider the features robo-advisors offer (Chart 6.5). These results suggest that client take-up of the technology may not be too far from a tipping point – where network effects among early adopters fuel further take-up among peers in a self-perpetuating cycle of

Chart 6.4: Robo-advisor annual fees versus Swiss incumbents



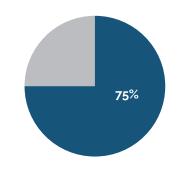
Source: Moneyland, calculation based on information in Table 6.1

[7] According to the global wealth report 2016, Credit Suisse, November 2016.

Chart 6.5: 75% of clients would try robo-advisory services

Question asked to respondents:

Would you consider the offer below from your bank? "Assume your bank recommended portfolios comprised of ETFs based on your investing experience, risk preference, financial goals and time horizon. There are no trading commissions and a management fee is based upon the amount of assets under management. You would access your accounts and make transactions over the web and with any mobile device such as a smart phone or a tablet. It could look like the illustration on the right."





Source: KPMG & Redesigning Financial Services

growth. For this tipping point to be reached, clients need to be aware of the main unique features robo-advisory offerings make available to clients. To our mind there are four:

First, robo-advisors offer much lower fees than incumbents, as illustrated in Chart 6.4, which compares the 0.19% average cost for the world's five largest robo-advisors with several Swiss incumbent costs CHF 1 million. The difference is stark – robo-advisors offer clients a chance to cut their costs by no less than 75%. Lower fees appeal to investors of all classes. The difference is stark – the robo-advisory offers clients a chance to cut their costs by at least 75%. Lower fees appeal to investors of all classes.

The second reason for a client to switch to a robo-advisor is better net returns than actively managed funds. In 2008, Warren Buffett made a USD 1 million bet that a passively managed fund would outperform a portfolio of hedge funds over a ten year period. So far, the fund of hedge funds has delivered 22% while

the passive fund has delivered 86% (on a basis net of fees, costs and expenses)⁸. This is relevant because robo-advisors typically invest in passive products.

The third incentive for clients to switch to robo-advisors is a seamless user experience. Clients simply need to answer some questions online to get access to the service, and they can make near instantaneous changes to their portfolio at any time without ever having to contact a broker. This saves time and effort. Clients thus have more control, more flexibility, and loose less time with bureaucratic processes like process applications than with the conventional service model.

The fourth unique feature robo-advisory services make available to clients is that they can offer wealth management services to a much broader range of clients than legacy players can. This is because robo-advisors have much lower operational costs than traditional wealth managers, and can thus lower their account minimums to include nearly all clients,

while legacy players typically exclude any clients with fewer assets than USD 250,000. For example, robo-advisors have the opportunity to win millennials as clients early while they may still be net dis-savers, only to see their personal wealth grow with time as their incomes

Risks of cannibalization not to be ignored

Despite the many benefits to clients of robo-advisory services, the technology also represents a number of threats to the existing business model. Indeed, general advisory fees are likely to come under pressure, as part of the value chain is replaced with cheaper, more transparent technological processes. And as investors begin to squeeze fees, commissions are likely to be replaced by more transparent fee-based services. Another important risk to the existing business model is the cannibalization of the existing offering in the face of higher competition.

[8] "Buffett's Bet with the Hedge Funds: Year Nine", D. Floyd, Investopiedia, 2017, http://www.investopedia.com/articles/investing/030916/buffetts-bet-hedge-funds-year-eight-brka-brkb.asp

Robo-advisor as one way forward

Assets invested in robo-advisors globally reached USD 200 billion in 2016, and are set to reach over USD 8 trillion by 2022. This growth is set to be driven by incumbents quickly scaling the technology. For incumbents, robo-advisory technology can streamline costs, improve productivity and address the untapped mass-affluent markets. Start-up robo advisors are going to find it difficult to scale, and will need to differentiate their services to succeed. Those start-ups that offer easily replicated digital solutions may not survive.

For example, when Vanguard launched its Personal Advisor Services Program with a 0.30% fee structure, the firm transferred half of the assets from their more expensive Asset Management Services with a 0.70% fee structure. As this transfer of assets to the lower-cost solution accelerates, Vanguard actually makes less money on the same assets. This suggests a very clear industry trend toward slipping margins and growing volumes going forward. Incumbents that resist this trend will have to deliver a clear value-add to justify higher fees.

Outlook: hybrid robo-advisory is the way forward

Firms unwilling to adapt to this important digital trend will likely face lower growth and eroding margins, while those that respond early by developing robo-advisory services in-house or buying start-ups are likely to be well-positioned for the future. So the future of robo-advisory is likely to belong to incumbents who adopt the technology early, while start-ups and smaller firms are likely to struggle to find a comparable scale to the early adopting incumbents.

A winning model is likely to be a hybrid model, which integrates low-intensity human touchpoints with a robo-advisor. So, as incumbents shift some of their clients into low-cost automated solutions, their human advisors can shift focus to providing more expensive services to the wealthy client segment that have different needs than affluent clients. Looking ahead, while incumbents will benefit from the early adoption of robo-advice by cutting operational costs and gaining access to new markets, the biggest beneficiary will likely be the affluent client.

07. Q&A with Bastian Lossen, CEO of Werthstein, a Swiss FinTech



Bastian Lossen
Werthstein AG

Werthstein is a leading online investment management company in Switzerland. It helps individual investors make informed investment decisions.

Redesigning Financial Services (RFS): Can you tell us what Werthstein is in one Tweet?

Bastian Lossen (BL): It's a newspaper with an invest button! Subscribe, watch videos on trending topics ("Zeitgeist"), click to invest in a portfolio we've chosen.

RFS: Please explain in more details what Werthstein offers.

BL: Investing tends to be a chore for many clients, unless they are capital market enthusiasts such as day traders. The user experience around investment advice in bank channels is horrible, starting with the need to visit a branch. Investment advice is frequently of poor quality and commission-based. Plus, mobile-first wealth management

solutions do not exist. That is why Werthstein provides both journalistic information and portfolio management on a single platform. This allows our clients to think about investments purely on the level of investment ideas without having to worry about how to make an idea investable - we do that for our clients. It dramatically simplifies investing. The Werthstein Institute, an independent panel of senior economists and investment professionals, creates these investment ideas and we produce professional articles and videos to explain them. Our main competitor is traditional private banking.

RFS: You are not the first robo-advisor on the market – why do you think that Werthstein will be successful? **BL:** Werthstein is not a typical robo-advisor. Our videos and articles are interesting and entertaining like quality journalism, and they relate to key themes ("Zeitgeists") in technology, politics etc., rather than pure finance. And after watching/reading them, you just click on a button to invest in a portfolio relevant to that Zeitgeist, built by experienced portfolio managers, and embedded in an overall asset allocation tailored to your risk profile.

We think that video content will help our clients to develop a strong relationship with the Werthstein brand and the people behind Werthstein. With this model Werthstein expands on version 1.0 robo-advisors type offers by adding thematic investments and focusing on original content delivery to drive and maintain customer engagement. Content additionally serves as a client acquisition vector, driving the cost for client acquisition down.

Our technical solution is a fully-fledged portfolio management system that hides investing complexity to a maximum degree from customers.

RFS: If you are not a robo-advisor, who are your competitors?

BL: Werthstein occupies a white space between media and financial services providers. Media players have difficulties to enter this market because they lack regulatory know-how and licenses. Incumbent banks have a credibility problem as product providers and are stuck in a commission revenue model and high-cost base making cannibalization efforts extremely painful. Robo-advisors need to upgrade their offerings and regulatory license, and develop content creation and delivery skills.

RFS: How did you come up with your start-up idea?

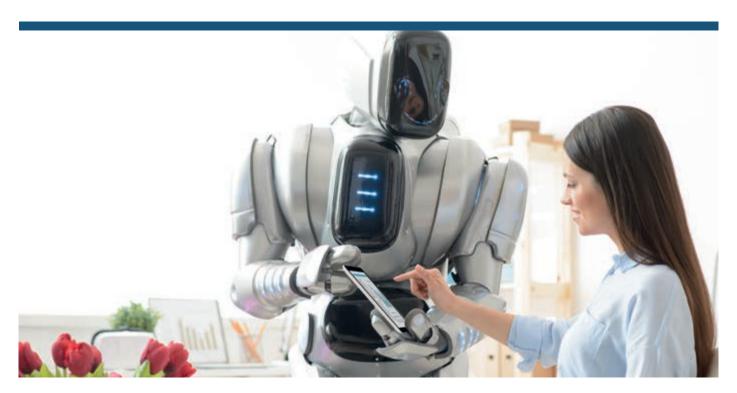
BL: All of us have many years' experience in private banking and we were frustrated by the inefficiencies of having to transport investment ideas and proper portfolio management through many organizational layers and hundreds of sales people to clients – it is just very difficult to control what clients really experience in this model. There had to be a direct-to-consumer way of doing this. We want to give our clients excellent investment ideas and relevant financial information of highest journalistic quality. So one catch-phrase in our early development phase was "The Economist with a trading button".

RFS: What opportunities do you see for Werthstein?

BL: At Werthstein we have a very international mindset and think that we will be able to replicate our model internationally. At least throughout Europe, the opportunities are very similar while the way of addressing them in local markets may be different. The situation in Europe, the US and emerging markets is very different, but our approach can be adapted to all those markets. Specifically, in emerging markets we have identified a great need for financial education, so we have developed some ideas specifically for these markets.

RFS: Anything else?

BL: Banks will not be the same in ten years. This is a time of huge opportunities. If you spot a great idea, go for it now!



08. Big Data in wealth management: from investment consulting to true relationship management

The combination of data and advanced analytics will allow financial institutions to build personalized relationships. Going forward, consultation of a broader group of private clients will be personal, the assessment comprehensive; the diagnosis, intelligent; the advice, holistic; and the prescription, clear and effective. Wisely using the now available technology and large amount of data will give birth to a new breed of advisors, reaching levels of customer service never seen before.



Philipp Zollinger swissQuant Group AG

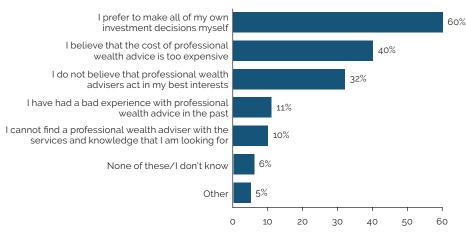


Dr. Sebastiano Rossi swissQuant Group AG

Need for big data

In collaboration with Scorpio, CFA Institute interviewed 1,300 client advisors and 4,000 individuals with an average net worth of seven million USD. The result was sobering:

Chart 8.1: Reasoning for not seeking wealth advice



Source: CFA Institute

Apparently, many wealthy individuals can do without professional wealth advice given the high level of costs and – much worse – given a perceived lack of quality or value gained from the relationship.

Today's clients want a different type of wealth management relationship. This should be discreet, relevant and cost-effective. At the same time, due to rapid progress in the

technological and communication sectors, consumers are getting used to personalized, comprehensive and rapid interactive experiences. These new client needs represent a difficult challenge for the traditional advisory business. The answer to this problem, as the results of a CFA's survey below show, is perceived to consist in an increased integration of technological solutions in the traditional human wealth advisory process.

75% 23% Average 78% Under 35 75% 35-54 70% 28% 55 and over 40 80 0 20 60 100

The Same Importance

Chart 8.2: The importance of digital engagement in five years' time according to wealth advisors

Source: CFA Institute

Technology should therefore not just make operations of financial institutions more efficient, reduce costs, get tasks done faster; it will have to create a pleasing user experience and truly add value to customers' lives⁹.

More Important

In order to do this, technology should help wealth advisors to understand the client and his/her needs. It should provide them with a dynamic and detailed picture of how their clients are reacting to positive and especially negative periods, such that the client will receive an adequate and timely support when the stress is ramping up in the markets.

The required knowledge that once was exclusively obtained through lengthy and costly personal contacts can be now rapidly extracted from data. Indeed, a massive amount of useful information is waiting to be exploited. This is hidden in all digital actions of the clients: posting on Facebook, booking a hotel online or purchasing goods in a store; all these activities leave traces and allow to anticipate changes in clients' investment behavior and uncover their hidden needs. The analysis of such data however poses the classical big data problem, i.e. large volume, variety and velocity. Big data techniques are therefore a must for the next-generation banking¹⁰ to be proactive, predictive

and finally provide services and recommendations with the quality and timing the client is expecting.

Less Important

Currently, however the financial industry is far from this digital utopia: a world of timely and accurate predictive assessments for individual clients based on global, multidimensional information and processed by learning algorithms. The rise of so-called robo-advisors has so far not really brought the level of innovation needed to revolutionize the investment industry. Essentially, today's robo-advisors make investment management more accessible (e.g. for the mass affluent market), offering a good customer experience and smoothing onboarding, but the product offering is often still relatively simple and the level of investment services is rather basic. There is the need for a more mature and widespread use of modern recommendation techniques, smart customer segmentation and machine learning algorithms11.

Challenge of big data

This paradigm shift requires the integration of data like credit card transactions, mortgage data, investment history and client relationship documents, which are traditionally stored independently in the bank system. Furthermore, these

data have to be supplemented with less traditional sources like webpage and e-banking logs as well as social media information. This information has different structure ranging from tables of demographic data to unstructured recorded textual or vocal interaction with costumer services. The storage and fast recovery of these data requires therefore going beyond the rigid relational database structures towards new ones like in-memory storages or efficiently compressed column based databases¹².

While data are nowadays widely considered as a real new asset, data alone are useless if we cannot extract patterns and suggest optimal actions from their analysis. Knowing that a client has high volume on his/her regular credit card, uses car sharing services and travels a lot, it is pointless if he/she is not advised to purchase either a gold or platinum card because on balance he/she will be better off given all the additional offered benefits. Or if, despite having all credit card data and journal subscriptions, private banking clients still have to provide their preferences for event invitations explicitly.

A timely identification of client typologies based on a large set of credit card transactions and a variety of social network interactions or the valuation of

Chart 8.3: Milestones in machine learning

Deep Blue

First time a computer beats the reigning world champion in chess, Garry Kasparov

Watson

First time a computer that can understand and answer questions posed in natural language beats human competitors in quiz show Jeopardy

Robot victory

Deep Mind

Robot failure

First time a computer beats the reigning world champion in Go, Lee Se-dol



Medaillon Fund

Fueled by artificial intelligence, the fund almost never loses money and outperforms other investments. Its biggest drawdown in one five-year period was half a percent.

clients' affinity by crunching historical investments and interpreting web-page queries, requires mastering new algorithms. These enable the extraction of sentiment from textual data, identification of groups in large dimensional spaces or the automatic detection of similarities¹⁰. At the same time, it is essential to adopt new computational infrastructures in-house or through solutions, where the algorithms can coherently analyze in parallel a huge quantity of data distributed across different computational nodes.

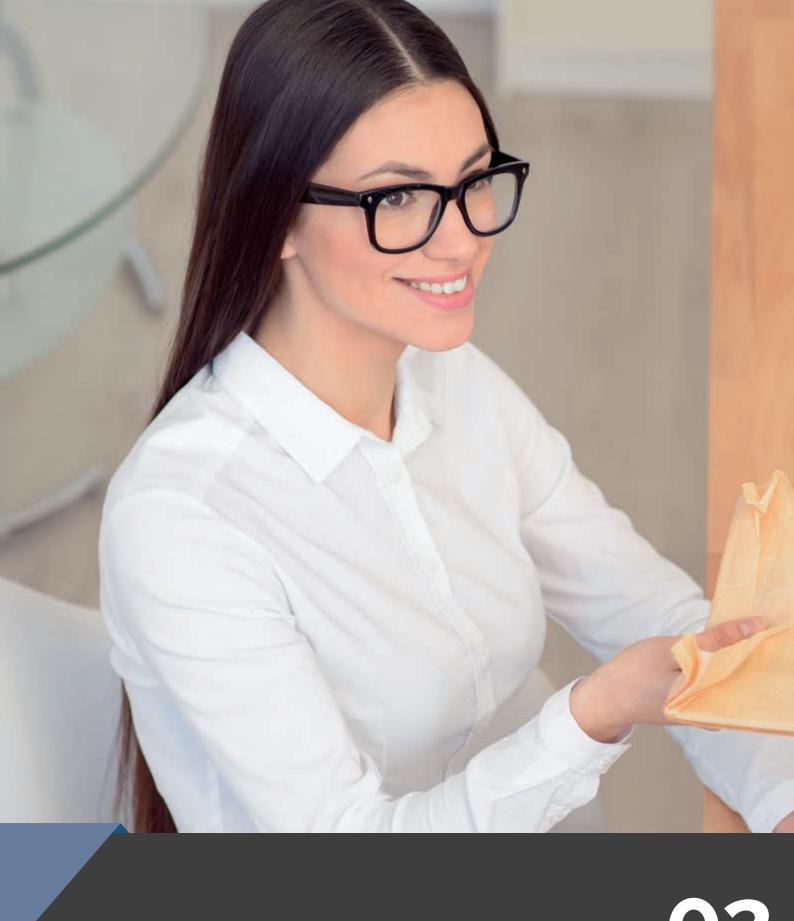
Big data techniques, however, do not just open up new opportunities. While consumers will profit from an enhanced and comprehensive experience, at the same time the precious personal information that data mining methods will distill from the large amount of public or private data may seriously endanger their privacy. A balanced regulatory framework, which will be able to protect consumers from abuses but at the same time allowing the required progress is a necessary condition for a healthy development of big data techniques in wealth management activities.

In conclusion, as in other economic sectors, the successful application of big data techniques in the wealth management industry will require an early adoption of new technological frameworks, deep knowledge of data mining techniques and a wise use of the generated information in order to lead to a win-win outcome in which wealth managers benefit from cost savings and effective advice and clients from the required modernization in their advisory relationship.

- [9] "The digital banking evolution: from transactions to relationships", Greg McLaughlin-The death of omnichannel banking, Jason Bates [10] "Big data concepts, theories, and applications". S. Yu and S. Guo, Springer, 2016.
- [11] "The future of advisory: exploring the impact of robo on wealth management", epam/finextra.
- [12] "Tackling the challenge of big data", M. Stonebraker, MIT, 2014.

Data-driven wealth management

The combination of data and advanced analytics combined with more systematic processes addressing client needs will allow financial institutions to build personalized relationships. Going forward, consultation of a broader group of private clients will be personal, the assessment comprehensive; the diagnosis, intelligent; the advice, holistic; and the prescription, clear and effective.







Eunice Zehnder IPM AG

og. The relationship game: how well do you know your client?

In today's world of automated wealth management services, roboadvisors, social trading platforms, and customer empowerment tools, why does a client still need a wealth advisor? Which element cannot be easily dis-intermediated by algorithms and artificial intelligence?

Trust

Money is an emotional topic. On the surface it appears purely rational, but at the end of the day, it is not only about the money, but the client's emotional relationship with money. What matters is what the money gives them – peace of mind, security, freedom, independence, confidence, power, status, and maybe vanity and fun.

Since the financial crisis, wealth advisors have been climbing an uphill battle to regain the client's trust. But investment results alone do not guarantee client satisfaction and loyalty. It is not only about what you deliver to your client; it is also about how you make them feel. Understanding the intrinsic emotional structure of each client to ensure that those non-quantifiable needs and expectations are met is critical to success.



Engagement and affinity

Banks tend to be overly focused on the product dimension of the client relationship. They often perceive themselves as the seller of services or products and the client the buyer. This leads to a transactional mindset and the client relationship often takes a backseat. In addition to delivering financial performance, a desirable wealth advisor needs to be a trusted sounding board. To create engagement, the two circles of financial performance and emotional satisfaction must overlap.

Wealth advisors have got to put the "service" back into "financial services" and "custom" back into the "customer". The key to success is to be able to master the communication and deliver customized client journeys that truly meet the individual needs of each client.

That sounds like a lot of effort! Often one allocates a lot of resources to try to make each and every single touchpoint special and memorable. In reality, what you need is a few highlights that bond the client to the wealth advisor while avoiding any low-lights that would drive them away. The remainder of the touchpoints just need to be adequate.

The client's voice

Client advisors have an objective and factual understanding of the client's financial needs, but do they really comprehend the underlying emotional needs of each client? How does the client wish to live out his life? What are the client's biggest frustrations and fears?

The problem is we only see 10% of another person. The remaining 90% is hidden from plain view – just as 90% of an iceberg is underwater. To win the clients' hearts, the future wealth advisor almost needs some knowledge of behavioral science (psychology) in addition to finance. A healthy dose of empathy will go a long way. But herein lies the good news: machines will still struggle to address the emotional needs of a client, so wealth advisors have an inherent advantage over

algorithm-driven alternatives in listening to the client's voice and building meaningful client relationships.

Does the following example ring a bell? Your client is a CEO of a mid-sized company who has given you full discretion to manage his portfolio (because he does not have the time). He boasts about his knowledge of finance and checked the box in his risk profile that he would be comfortable with some losses in exchange of potential returns. He also informs you not to bother him too much.

He loses 5%, gets very upset, calls on a daily basis and threatens to withdraw his assets.

On the surface, he is happy to delegate (and wishes to see himself that way). Deep inside, he has an intrinsic need to control every detail. This gives him a sense of security. What infuriates him is unexpected news that disrupts his perceived command over his surroundings. He wishes to be seen as a risk-taker but his stomach cannot tolerate it. Deep down he likes to be made aware of all details and challenges and wishes to stay involved. Should he be informed early on that an investment is under pressure, the eventuality of a loss would have been much more acceptable to him. A wealth advisor who is perceptive would have identified this inherent need for information and safety on the part of the client and would have kept him informed regularly during the period of stress.

The rules

We must start to focus on the "how" (to deliver the service) in addition to the "what" (to deliver). A change in mindset to think of wealth management as a relationship management business rather than a product delivery business is the panacea for wealth advisors to survive in today's world. You need to win the client's head, his heart and his gut before you get to his wallet.

What are the roadblocks? Some wealth advisors are attracted to their jobs because of the investment management aspects and view their success in terms of their investment performance. Not all front-end staff actually meet the client, and most client touchpoints are handled by people who are too far removed to truly understand the client's needs. At large institutions, wealth advisors are often overwhelmed with a myriad of demands: many clients to take care of, internal sales targets, ever-changing technology platforms, growing regulatory pressure, and market fluctuations. The emotional needs of the client almost become an afterthought.

The game

Clients leave the wealth advisor, not the bank.
Why are some wealth advisors so much more successful than others? They know how to best communicate with each individual client in a way that builds trust. Can empathy be

taught? How can the social competence of wealth advisors be enhanced? How does one determine the underlying motivations of the client?

Wealth advisors would need to be trained to respond to the emotional cues of clients and adapt accordingly. The enhanced client experience includes simple things such as considering under what circumstances the client wishes to be contacted, or whether one wishes to hear the bullet points to an investment idea while another wishes to see comparisons, analysis and discuss everything in detail. These are the interactions that boost or break a relationship.

Beyond the standard know your customer (KYC) and biographic questions, wealth management providers should consider adding a behavioral questionnaire during the onboarding process. What are the benefits? Imagine your wealth advisor recognizes the invisible part in you and treats you the way you like it. Teams could assign new clients to relationship managers whose motivation and personality would be the best fit in each case. Prospects who have been tough to convert into clients and difficult existing relationships could be re-assigned according to the same methodology.

The winners

While algorithms cannot (yet) understand the intrinsic motivations of clients, artificial intelligence will master this in due course and robo-advisors will be able to add some degree of personal touch even without much human interaction. In order to defend their territories, wealth advisors absolutely need to deliver on their value proposition. To ensure quality execution of their service, it is imperative to focus on mastering the soft skills, listening to the client's voice and building trust at each touchpoint of the client journey.

Over time, there will be a bifurcation and the fight will be over the middle ground as robo-advisors move upmarket. Wealth advisors will consolidate in the high-net-worth and Ultra High-Net-Worth segments where clients will pay for and can afford the long-term, relationship-oriented service that not only delivers financial performance but also satisfies their intrinsic emotional needs. At the end of the day, happy clients are good clients.

Core value proposition of human advisors

As robo-advisors become increasingly sophisticated, wealth advisors need to deliver on their value proposition in order to defend their territories. Since every client has their own emotional relationship with their money, wealth advisors would need to be trained to respond to the emotional cues of clients and adapt accordingly.

10. How computational advisory will change the human advisory process in financial services, interview with Giles Keating



Giles KeatingWerthstein Institute

Machine intelligence is slowly but surely creeping into our everyday lives, affecting how we live, work, entertain ourselves – and how we consume financial services. From voice-powered personal assistants like Siri to behavioral algorithms and suggestive search engines, machine learning is slowly eroding the investors' need for human help. Giles Keating, President of the Werthstein Institute, talks to us about the role machine learning is likely to play in the financial advisory process of the future, and why he thinks humans are likely to continue playing an important role in it.

Redesigning Financial Services (RFS): Often people confuse automation technologies and machine intelligence, can you explain the difference in simple terms?

Giles Keating (GK): The key difference between automation and machine intelligence is learning. Automation simply eliminates repetitive tasks, allowing humans to focus on other tasks, while machine intelligence goes a step further and begins to adapt to its environment in some very exciting ways.

RFS: How does this work exactly?

GK: Very basically, a machine learning algorithm is given a "teaching set" of data, then asked to use that data to answer a specific question. For example, one could provide a computer a teaching set of photographs, some of which say, "this is a dog" and some of which say, "this is not a dog." Then you could show the computer a series of new photos and it would begin to identify which photos were of dogs. The algorithm then continues to learn with each iteration of photos which

it identifies, thus enhancing its teaching set, and continually improving its accuracy.

RFS: Do robo-advisors in finance rely on automation or machine intelligence?

GK: Well, the first generation of robo-advisors were simply automated asset allocation tools based on the client's input data like risk appetite, liquidity needs, etc. The biggest advantage that these first generation robo-advisors offered their clients was their low cost, ranging from just 0.15% to 0.50% of assets under management.

The next generation of robo-advisors like Wealthfront and Hedgeable have integrated machine intelligence into their financial advice offering. For instance, robo-advisors use machine learning to understand how account holders are spending, investing and making their financial decisions in general, in order to offer the client advice that is more customized, more useful, than would be possible without learning. And the more data the computer program gets from users, the better, the more personalized, the advice the computer is able to offer the client. It's similar to the personal assistants on your phone like Siri, which also learn from each interaction and give better advice over time.

RFS: Can you share any similar examples from other industries?

GK: IBM's supercomputer Watson is probably the most prominent example. Apart from being a top performer on TV game shows, the technology is also proving very useful in the healthcare sector. For instance, oncologists in New York use Watson to suggest treatment options for cancer patients. These suggestions are based on data from 20 million cancer research reports and 1.5 million patient records. With this data, Watson personalizes a treatment plan with reference to a given patient's individual symptoms, genetics, family history, and medication history.

RFS: How do you see the relationship between human advisors and robo-advisors evolving over time?

GK: I think that we are at the cusp of a big acceleration in the learning capacity of machine intelligence. To take another familiar example, look at the evolution that has already occurred from early satnavs, which crudely showed the route, to the latest generations on your phone which analyses traffic data and historical patterns and use that to predict the best route.

At the same time, I also think it important to recognize that just as machines have been physically stronger than humans for a very long time, and are now better able to analyze large amounts of data in some circumstances, they also face limita-

tions in both the physical and analytical worlds and probably always will do. Machines can get better and better but in my view they will always be a complement to humans, not a replacement.

RFS: Some clients are reluctant to use new technologies. How do you get around this hurdle?

GK: That's right – some clients avoid new technologies, especially if they have to do with financial planning, which is rarely fun. This is why the new technologies need to be engaging, fun, and they need to be designed for solving client problems. So the future lies in the use of games, the development of intelligent and funny talk bots, the mixing of engaging videos containing humans with the input from digital analysis, and so on. It's got to be fun and interesting as well as great analytics.

RFS: Clearly, the financial industry is in the midst of a structural transformation driven by new technologies like machine learning. How do you see financial services being delivered to clients in the future?

GK: Let me focus on personal finance, both wealth management and banking. I see three important trends. The first one is an enormous increase in productivity in the wealth management industry. This productivity boost will be driven by the broad-based integration of robo-advisors into the financial planning process, eliminating inefficiencies. At the top end, this will allow human advisors to work more productively on servicing their clients' needs, while for clients with smaller investments it will allow for the first time quality customized advice, largely or wholly without human intervention.

The second big trend I see is much greater customization. This will be driven by machine intelligence, alongside multiple platform businesses offering an open-architecture of products to clients. Some clients will use automated systems to tailor solutions for themselves, some will still want human intervention but even that will be built on an automated base.

The third and perhaps most inspiring trend I see is access. Today, we still have 2.5 billion people without access to a bank account. In this context, I think technology-driven platforms will make it far easier to offer under-served clients high-quality banking services. Since banking is all about knowing your client, I think that the introduction of nationwide biometric IDs in India will be transformational in this area.

In short, I think the financial services providers of tomorrow will have to be technology companies, and they will have to understand and meet clients' needs much better than today.

11. New strategies to affect behavioral change in wealth management, interview with Sille Krukow



Sille Krukow KRUKOW

Behavioral design principles are based on the idea that humans often deviate from the principles of economic rationality. Research suggests that human behavioral biases in financial decision making occur both consistently and in recognizable patterns. This means that we can design incentives to correct the biases. Sille Krukow talks with us about how behavioral design principles can help wealth managers enhance client loyalty by helping their clients make better decisions.

Redesigning Financial Services (RFS): Behavioral design is based on insights from behavioral economics. Can you explain this relationship?

Sille Krukow (SK): Yes, sure. Behavioral economics is based on the idea that we humans do not always act as rationally as economic models may predict. For example, we tend to excessively discount the future, making us value impulsive purchases like a new iPhone today over making less urgent but necessary contributions to a retirement plan. Such deviations from rationality are referred to as cognitive biases, and they generally occur when our feelings override what may be considered rational thinking. Behavioral design principles help us use these biases to our advantage, rather than to our detriment.

RFS: Can you share some examples?

SK: Of course. In healthcare and wellness, behavioral design applications are already helping people improve health-related behaviors like diet and exercise. For example, the app Pact uses behavioral weakness and turns them into strengths.

Users make a weekly pact, choosing how often they intend to exercise and even bet money on their commitment. Users, who fail to honor their pact, forfeit the money they put in. The forfeited money is then pooled and distributed to those, who did exercise. This has proven to be a big motivator by making the impulse to laze around today less attractive than invest in a better health in the future.

Another exciting example from another industry is Opower – a company that helps utility companies nudge consumer behavior by applying the motivating power of social norms. The company designs personalized energy bills informing consumers how their energy use compares to that of other efficient households. This simple intervention has delivered considerable savings, and is far more cost-effective than traditional marketing or economic incentives.

RFS: Can you explain the cognitive processes behind the success of such examples?

SK: Very broadly speaking, it is important to understand that human behavior is controlled by two systems of thinking: reflective and automatic thinking. Reflective thinking is

conscious and rational thinking, and it is best activated when one is in a calm and collected state – a cold state of mind. Reflective thinking helps us navigate a complex world as reasoning critical thinkers. Unfortunately, reflective thinking is very energy-intensive, even causing our blood sugar level to fall. Perhaps you can recall how hungry one gets when studying for hours on end.

Different to reflective thinking, automatic thinking is fast, energy-efficient and unconscious. Automatic thinking essentially boils down to what we would call habits or even instincts in colloquial language. They are influenced by our previous experiences, cognitive short-cuts and of course by our immediate surroundings. And since automatic thinking is so much more efficient than reflective thinking, our biological "default" is to be in a state of automatic thinking for 90% of the time, preserving energy and only drawing on the energy-demanding reflective processes when absolutely necessary.

The examples I mentioned before all typically employ design to make the "right" decisions the easy ones – or the ones favored by the automatic thinking system.

RFS: What does all this mean for designing customer experiences in wealth management?

SK: Let me begin a little bit more broadly. On an evolutionary level, this means that we as humans are best suited to live and interact with very simple environments – environments that allow our automatic thinking to inform the majority of our decisions. This is typically an environment that minimizes complexity and uncertainty – essentially anything that would activate reflective thinking unnecessarily.

From a wealth manager's perspective, the impact is clear. We need to design both online and offline client journeys that are uncluttered with too many distractions, and that allow our clients to rely on their more efficient automatic thinking systems during the decision-making process. Concretely, this means focusing less on rational incentive structures – like legal information or pricing structures – and paying greater attention to how we design the surroundings in which our clients make their choices – both online and offline. In other words, we need to design better "choice architecture".

RFS: What is choice architecture?

SK: Very broadly, choice architecture explores the impact the design of an environment can have on the choices being made in it. Most essentially, it is a targeted design process that facilitates behaviors among clients that correspond with their values, needs and aspirations, such as for example staying within budget limits, saving for the future, etc. The key here is to empower consumers in a way that their every-day automatic actions correspond with their long-term ambitions.

It is important to note that choice architecture already exists in our current surroundings. However, most existing paradigms engage the client in very rational, information-driven ways, and thus also fail to predict and prevent human errors in the process. Done in the right way, choice architecture can limit the probability of mental errors compromising our ambitions. This can be done in a number of ways, like by anchoring financial incentives, defining the right defaults, framing communication, and by optimizing feedback loops.

RFS: Today, robo-advisory is en vogue offering the potential to automate much of the investment process. Does this minimize the relevance of choice architecture?

SK: I do not think so. Even if some financial decisions are made well by robo-advisors, the emotions connected to human decisions will still play a key part in the investment process. For example, what will keep investors from selling in panic during a drop in the market? Or what will prevent investors from investing during times when everyone is jumping into the market? I think we can find part of the answer to these questions in the potential of intelligently designed choice architecture that makes the "right" decision the easy one. In fact, many big robo-advisors like Vanguard are already integrating behavioral design insights into their interfaces to nudge clients to save (and invest) more for retirement.

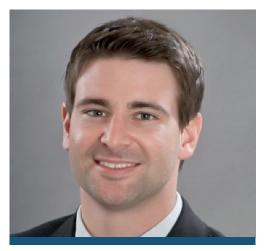
RFS: How important is it for wealth managers to deliver a great customer experience? And what role can choice architecture and behavioral design principles play in this context?

SK: I think it is clear that many of the products wealth managers will deliver to clients in the coming years are already at risk of being commoditized. It is in this environment that the value of a fruitful client experience gains in importance. Looking ahead, I think players that are able to deliver a fabulous client experience are likely to thrive, while those who are not, are likely to fall behind. And today's customers are increasingly looking for convenience, authenticity and exclusivity rather than just competitive prices. Choice architecture that corresponds with client values can be a key ingredient to the delivery of the positive, long-term client experience that will help incumbents thrive in the future.

Behavioral design in wealth advice

Research suggests that human behavioral biases in financial decision making occur both consistently and in recognizable patterns.

Behavioral design principles can help wealth managers enhance client loyalty by helping their clients make better decisions.



12. The promise of gamification in wealth management

Dr. Tobias Schlager University of St. Gallen

Play is serious!

Gamification, or the use of game principles in non-game contexts, has gained increasing relevance across many industries – among them, the financial services sector. For instance, instead of the traditional way to educate their clients, financial services providers use games that educate them and gain a minimum amount of financial literature. Not only is the number of gamification applications growing exponentially, business leaders in the wealth management sector have begun to realize the toolset's potential for their business. Research heads of leading financial services providers have been quoted saying that gamification creates experiential fun and memorable interactions in a way that other forms of customer interaction cannot.

Based on recent examples within and beyond the wealth management sector, we identified four primary application areas for which companies operating in the wealth management sector can harness the power of gamification.

■ Guide clients: Firstly, it can directly affect client behavior. The toolkit uses incentives that highlight specific choices and leads clients to behave in a specific manner. For instance, gamification may influence the amount that clients allocate for their retirement. SAVEUP, a UK-based start-up, gives individuals credits for saving money in their accounts and paying credit card bills. Doing so, the clients gain credits to play for big money prizes, like cars or vacations. Closely related to goal-based investing, gamification may be the technology to help clients to actually make investments that reflect their goals, namely, by setting the right incentives.

- Educate clients: The games can also affect clients' behavior indirectly. Not only are they fun, but games provide an abstract demonstration of a highly complex process such as gaining financial literacy. The 2008-founded start-up PlayMoolah educates children in financial literacy and the value of saving and is nowadays even cooperating with schools to do so. Others allow clients to make virtual decisions, rather than direct investments with real-life consequences. The knowledge, nevertheless, that clients gain from playing the games can be directly transferred to their real investment decisions.¹³
- Engage clients: The third application area is different from those prior in that it may not necessarily affect any decision. Instead, the games engage clients by providing fun interactions. The Swiss bank UBS, for instance, launched the gamification Quiz & Fly,¹⁴ where clients could pilot a plane and collect points. Participants can compare points with other clients and publish their results on Facebook.
- Learn from clients: Finally, a growing portion of financial services providers have started to gamify the market research process as they have realized the vast potential of the data. Current and prospective clients can make their investment decisions within a game and financial services providers can gain insights into their clients' desires as they make their decisions less conscious in games and often reveal their "true" desires. For clients, the previously mundane process of market research becomes more engaging while the financial services provider gains sales. The use of gamification as a market research tool is a winwin.

[13] https://www.ft.com/content/ea427d30-2f04-11e6-a18d-a96ab29e3c95. [14] https://www.ubs.com/microsites/quiz-and-fly/de/game-app.html.

Table 12.1: Existing applications of gamification 15, 16

Guide clients	Educate clients	Engage clients	Learn from clients
PUNCH THE PIG (PNC Bank) Promotes saving behavior. Users "punch" the piggy bank whenever it pops up and money – in an amount of the user's choosing – will transfer from their Spending account to their Growth account. PNC will surprise users by throwing it out there at random moments.	PlayMoolah Teaches children financial literacy and the value of saving while introducing parents to financial services based on their children's activity. Their goal, according to their website, is to "uncover the truths behind money and broaden the definitions of wealth beyond a person's financial net worth to make wiser life decisions."	BBVA Game (BBVA) Clients earn points by using e-banking, which can be redeemed for gifts like football tickets. The application attracted over 100,000 registered users in its first months. The bank encouraged customers to use their online services more regularly, building a stronger relationship with online banking.	iAmFam (American Family Insurance) Users to grasp the importance of insurance playing with virtual characters with real- life insurance issues. The scenarios encourage clients to consider gaps in their insurance coverage.
SAVEUP Rewards individuals with credits for saving money in their accounts and paying credit card bills. Players can use the credits to play for big money prizes, like cars, vacations, and even a USD 2 million jackpot.	Extraco Bank Explains to clients why they wanted to remove free checking accounts. The game walked customers through the key reasons and benefits of the changes. Conversion rates jumped from 2% to 14% on the platform.	DSK Game (DSK Bank) Deploys behavioral gamification aimed to change customers' savings habits by awarding points. Quiz challenges educate customers on products and customer goal-setting enables the bank to better understand its customers' product needs.	
BANKFUSION (MISys) Gives customers points for making deposits in their savings account. Users can also set goals that they are saving for, allowing a bank to then market products and services directly related to those goals.	56 SAGE STREET (Barclays) Money-management game built around an interactive virtual city. Players learn basic money management and life skills, working their way up levels by mastering life lessons and making wise financial decisions.	FLAPPYSAVER (Ikano Bank) Players navigate a flying piggy bank and try to protect their savings by avoiding crashing into jewelry stores and other places that might tempt shoppers but the real goal is to win the USD 14,000 prize awarded to the highest score.	
	GoalCard A Facebook-linked debit card that lets users cash in points for prizes. After passing a financial literacy quiz, players can access "Credits and Debits," a game that is bejeweled with dollar signs and piggy banks, instead of emeralds and diamonds.		

[15] "Ikano Bank Makes Saving a Game", R. Ryan, Bank Innovation, 2014,
 http://bankinnovation.net/2014/07/ikano-bank-makes-saving-a-game/
 [16] "Stock Market 'Fantasy Football' App Launched in Beta", D. Asatryan, Bank Innovation, 2016,
 http://bankinnovation.net/2016/12/stock-market-fantasy-football-app-launched-in-beta/

Gamification of wealth management

Wealth managers should keep in mind several key points in order to design effective gamification applications. First, simplification is key. To avoid becoming overly complex, the applications should be easy and fun to use. Second, incentives are at the heart of gamification. However, there is the risk of falling prey to the trap of disregarding the design process and simply "throwing in" some game elements in the hope to reach a given goal. To set the right incentive, wealth managers should first think about the goal they want to achieve with the gamification application. Should clients be concisely guided or thoroughly engaged? Third, gamification is experiential. This requires a considerable investment in understanding the process from the client's perspective not just the company's.

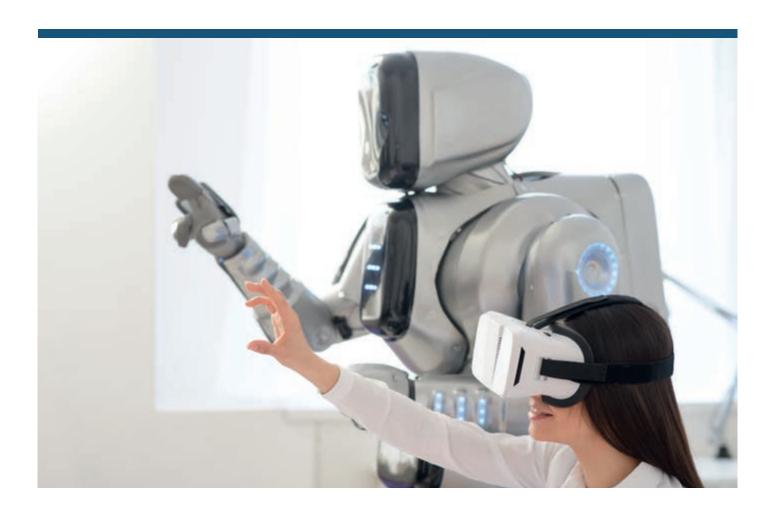
Gamification does not come without risks. Wealth managers have become excited given the vast opportunities gamification provides them with, but they should be careful not to misuse the power of gamification applications. If wealth managers consider using gamification, they should do so in a way that all conflicts of interest are avoided. Only then will it be effective.

The promise of play

Gamification is becoming a pervasive and powerful tool in the domain of wealth management. Wealth managers must fully embrace its power to influence their clients' behavior, educate and engage them, and gain insights into their desires. When they do, we will start to see great advances in the sector. The future of gamification is now.

Gamification as a powerful tool also for wealth advice

Gamification is becoming an increasingly pervasive and powerful tool in the domain of wealth management, because it equips wealth managers with the power to influence their clients' behavior, educate and engage them, and gain insights into their desires.



13. Building enduring client relationships in wealth management, interview with Alfonso Gómez



Alfonso Gómez BBVA Suiza

Historically, wealth managers focused on products and channels. Today, since open architecture has eroded the advantages of product-centric organizations, a clearer focus on client-centricity could provide the upper hand. Alfonso Gomez, CEO of BBVA Switzerland, shares his views on why investment returns alone do not guarantee client satisfaction, and why understanding each client's intrinsic emotional drivers is critical for success.

Redesigning Financial Services (RFS): What principles do you follow when it comes to establishing relationships with your clients?

Alfonso Gomez (AG): BBVA Group's vision is to work for a better future for all people! We want to bring the age of opportunity to everyone. We offer our customers the best banking solutions, helping them reach the best financial decisions and making a true difference in their lives.

Our banking model is based on four cornerstones: diversification and leadership, prudent management, return adjusted to principles, and a customer-centric approach. This is our way of doing responsible business.

RFS: The financial industry is facing enormous structural changes brought on by technological innovation. How can new innovations strengthen and empower the client relationship?

AG: We have many examples of innovation in our organization. First, with client onboarding, opening a bank account is now easier than ever. With a mobile phone and a "selfie," the client's identity is verified through biometric recognition and a videoconference call in a matter of minutes. At the moment,

it is only available for retail accounts in selected countries, however our plans are to extend the app to all areas and client segments.

As for payments, clients can now pay directly with the BBVA Wallet app. There have been more than 6 million downloads worldwide.

Finally, there's real estate. Last quarter, we introduced a housing appraisal tool (BBVA Valora) which relies on massive data processing to allow clients to find out the expected purchase, sale, and rental price of specific real estate properties and study the impact on their finances. Just in the last three months, more than 1 million users have employed the tool and mortgage applications are up 25%. We are convinced that by giving our customers the efficient tools they need, we can help them achieve their goals.

RFS: Do you foresee a technological innovation that could ease the current frictions of wealth management?

AG: Innovation is about creating value. New technologies will transform the industry and this includes many opportunities for wealth managers along the entire value chain.

Client onboarding, biometrics, digital signatures, and Blockchain technology will allow for a more efficient and reliable process for clients and banks.

By receiving constant feedback from client interactions (e.g.: online reviews, star rating products, client engagement scoring, branding recognition tests etc.) we can briskly improve customer experience. We should look toward the consumer goods sector which has had a lot of success with customer experience feedback.

In addition, robo-advisory tools for asset allocation personalization, investment selection, and risk monitoring are great for defining financial goals and having ongoing follow-up discussions between customers and client advisors.

RFS: What are the building blocks to a near perfect multi-channel customer experience?

AG: Now more than ever, clients have access to information, knowledge, and power. In order to deliver a perfect customer experience we must build capacity to anticipate client needs, create great products, which are easy and effortless to use, shape connectivity with our clients, and attract highly skilled, dynamic professionals to join our team.

RFS: What is needed to deliver an exceptional client experience? When do your clients typically consider their experiences exceptional?

AG: We deliver an outstanding experience when clients feel that we make a positive contribution to their lives. At BBVA, we play a role beyond clients' finances, providing what really matters to them. In my previous role as Head of Global Private Banking, I was responsible for developing "BBVA Life," a program for private banking clients which offers unique experiences in health care, family, lifestyle or education.

This includes our healthcare program with 24/7 access worldwide to doctors, hospitals, and medical treatments. On the educational side, our Silicon Valley Immersion Program is designed for clients with entrepreneurial spirit who want to establish a network in the innovation capital.

RFS: Beyond the client-facing relationship managers, how important is it to bring more client-centricity into the entire value chain? And how do you achieve this?

AG: The pace and the scale of the digital revolution are affecting multiple industries and people around the world. Technologies are changing patterns of consumption. Think for a moment about the changes introduced by companies like Amazon, Spotify, Booking, Uber or Airbnb within their respective sectors.

In my view, all these native digital companies have at least three features in common. First, they place the customer at the center of innovation; second, they aim to gain an insight into their clients' behavior through massive data analytics; and last but not least, they offer good products and services without needing to own hotels, cars, goods, or apartments.

We, too, want to redesign the customer's experience at the bank

RFS: A banking relationship is often not only about generating returns. How do you assess each client's intrinsic emotional needs beyond the objective understanding of their biographical information and investment objectives?

AG: The advantages technology offers for understanding client needs, creating good products, and optimizing processes with digitalization is patently clear. However, the role of the private banker still embodies a huge responsibility: the assessment of emotional service values and building up trust when managing client relationships.

The correct understanding of a client's personal situation and their cultural affinity with the private banker is key for any successful private banking relationship. The ultimate advisory model will be a hybrid model that combines technology, information, and human advice.

RFS: What existential threats do you see private banking in Switzerland facing in the next few years? Can we mitigate these threats, or even turn them into opportunities?

AG: The Swiss Private Banking industry is up against significant challenges due to radical changes in the business model, the adoption of new regulations, economic uncertainty, and the low-growth environment. Overregulation flies in the face of business innovation. It is essential to find a balance between financial stability and the development of new financial solutions that provide better customer service.

New competitors have arrived, bringing natives in digital disruption, with global-scale operations, more flexible procedures, better customized products and faster time to market for fulfilling customer needs.

And when it comes to marketing, I would like to see more initiatives promote the competitive advantages of the Swiss Financial Center abroad. Now, more than ever, we can contribute to a real diversification of wealth.

Despite these challenges, in recent years we have seen a wakeup call in the Swiss banking industry, which makes me confident that the banking sector will be able to navigate through this period of uncertainty and opportunities.



14. Leading in times of adversity – a view from the top, interview with Kristine Braden



Kristine Braden
Citibank Switzerland, Monaco and Liechtenstein

Many financial services firms appear to be facing an existential moment. After a wave of high-profile scandals over the mis-representation of products, accusations of money laundering or illegal price-fixing, client trust in banks has taken a sharp fall. At the same time, many nimble FinTech firms are challenging incumbents by taking the unnecessary friction out of the system, putting the needs of underlying clients' first. Kristine Braden, Citi Country Officer for Citibank Switzerland, Liechtenstein and Monaco, talks about the challenges of effective leadership in times of uncertainty.

Redesigning Financial Services (RFS): The global financial crisis has shaken the public's trust in many financial services providers. Generally speaking, how have client expectations evolved over the last ten years?

Kristine Braden (KB): I think there has been a big push from clients for us to be far more transparent and to deliver goods and services to them that are better understood. This is key. I think we as an industry need to come to terms with the new reality that clients will continue to expect increasingly higher levels of transparency from their banks than ever before.

I think clients today also expect a new degree of customer focus in the context of financial service delivery. Many consumers have become "spoiled" by the uncompromised customer focus pioneers like Amazon, Apple and Google bring to delivering a simple, convenient and safe user experience. This trend has also affected the service expectations clients have of their financial services providers. Looking ahead, I think our industry needs to get better at delivering great client experience.

RFS: What can financial services firms like Citi do to respond to these changing needs?

KB: We need to be far more client-oriented. In the past,

we were more product-oriented. We need to listen to our clients more and need to move quickly. The financial services industry has historically been very slow at change. I don't think we have the luxury to be slow any more. Once a client wants something, we need to move quickly to deliver it. It's a big question that we are grappling with at Citi, and I think we have made a lot of good progress in this area. At Citi, we don't just try to be a simpler, smaller, safer and sounder bank, but a bank that is focused on a culture of innovation. This is about everyone – from the top of the organization to the bottom of the organization – feeling empowered to be innovative and having that as a core value of what we do. We do this because a culture of innovation helps us better meet the increasingly demanding expectations of our clients.

RFS: Would you say that Citi today is more "on-purpose" than it was before the financial crisis? Can you perhaps give an example?

KB: I do. About ten years before the financial crisis, we merged with Travelers Group. At the time, our message was to become the supermarket of the banking sector – we tried to do practically everything. When the financial crisis hit us in 2007-2008, we had the opportunity to look inside and think about what was truly core to our business – our purpose, if you will. Out of these deliberations, we found that one of

the things that has always been core to us – but maybe had gotten lost in the supermarket approach – was our global network. The value we add to our clients is the ability to deliver anywhere.

Moreover, the shake-up during the financial crisis allowed us to refocus the bank on the profitable businesses that were most demanded and requested by our clients. So we've chosen to work with the world's largest Fortune 500 companies, Ultra High-Net-Worth individuals and selected economies with affluent and mass-affluent clients in our consumer area. As a result, in 2015, we had our best year revenue-wise since 2006, but interestingly with 100,000 fewer employees and with only one third of the clients that we had. That's because we are focused – or on-purpose.

RFS: From a strategic perspective, what advice would you give a leader trying to steer a bank through the current market challenges?

KB: There are a couple of things.

Firstly, it is important to understand the business in your industry. One of the things that is mentioned in the book All I Really Need to Know I Learned in Kindergarten is that a lot of people focus on learning the tricks of the trade, but the actual secret is learning the trade itself.

Secondly, it is important for leaders to understand how "finance plus technology" will shape the future. We all need to equip ourselves with skills in understanding how the industry is changing and will change, and how technology is allowing that – whether it is quantum computers, blockchain or other technologies that will enable the future. I don't think a banker can be the banker of the future without having the skillset to understand IT.

The last thing I would say is that the days of being domestic are over. As much as we resist globalization, the reality is that globalization is going to continue, partially because technology is enabling us to be global. Therefore, the bankers of the future have to be nimble around their understanding and ability to manage in a global context as opposed to a local one.

RFS: Many top students are attracted by employers such as Google and Facebook. How do you attract top talent? How would you "pitch" a job in your organization to a promising student?

KB: I think there are four themes that make a job at Citi desirable to young talent.

First, I think a lot of bright people want to join interesting businesses. What's interesting about banking – which sometimes gets lost in translation – is that it is a horizontal

business. We cut across every industry, every geography, every client set and basically every product set. There is just ultimate complexity for a life of learning.

The second thing is about our career culture. There are a lot of career opportunities at Citi. So just like our performance culture is entrepreneurial, our career culture is also entrepreneurial. This gives our associates the opportunity to go and work all over the world, in all different product and service areas. Nobody should ever feel stuck in one position.

Thirdly, we welcome and love people who come in and challenge us, change us and show us what's different. And we are excited about that. We are looking for people who have that innovative spirit. I think people with this drive to innovate will automatically feel comfortable in our culture.

And finally, we offer a dynamic working place. Citi is like the United Nations of banking. There are people here from all over the world and all walks of life. For me, working with interesting people every day is very inspiring. And I think many young people will find this too!

RFS: The element of culture is important. Indeed, only 13% of employees worldwide feel engaged by their work. Do you have any leadership cornerstones that help you facilitate a culture of engagement at Citi?

KB: Yes, I have a couple. One of them is not very typical in banking – I'm extremely transparent with information. I have always found that if you share information, and keep people informed to the best of your ability, more and more people will work with you. I believe that the health of the organization is a function of trust. For me, one of the foundations of trust is in not hiding things, and not keeping things too close to my chest.

The second is "to be the person that you want everybody else in your team to be". That is one of the core leadership competencies to me. I go and get my own coffee and I have a nice relationship with the lady who cleans our offices. I do that because I want everybody else to do the same, to foster a culture of respect, regardless of position. That's very important because we are all humans, we are all relational, and we all deserve respect.

The third one is to show my own commitment. I used to be a rower and rowed on the University of California's crew team. As the No. 7 rower directly next to the rhythm-setting "stroke" position, I found that the intensity of my pulling had a direct effect on the rest of the boat. So, unless I was keeping the pace, and unless I was pulling harder than everyone else behind me, I couldn't expect the same from the rest of my side. That's something I also apply in the bank – if I want something to be done, my team should also see that I am prepared to do it and I am as committed to the outcomes.

15. Strategic optionality: The uncertainty of the "WHAT" and the challenge of the "HOW"



Olaf Toepfer

The meaning of digital in wealth management has become clearer in past months. The hype has receded and the question on the value of digital has gained attention. Digital is not a strategy: evolving technologies enable us to redesign business models in wealth management, increasing their competitive strength. From a strategic perspective, the optionalities are rooted in three domains: profitable growth, efficiency improvement as well as more effective controls. In a nutshell: digital helps wealth managers to become more client-centric.

Indeed, today we see more opportunity than threat in wealth management globally: global wealth continues to grow; FinTechs have enriched the industry and have contributed to an acceleration of strategic transformation; established and new players have increasingly mature means to strengthen their value proposition; and we believe that while structural change is increasingly evident, the industry still has time to adapt, because trust is an elementary factor in wealth management.

hat are the challenges of future business models?

Among established global wealth managers, a strategic challenge remains: will regional business models with higher integration of wealth management, asset management and investment banking outperform peers running global wealth management businesses? And there might be another challenge given the high fragmentation of the industry and the emergence of financial market infrastructure: Will we see a modularization of current highly vertically integrated business models into more independent businesses along the value chain that provide services to both internally and externally? The likelihood is that this will happen similarly to other financial services value chains, but today's lack of industry standardization and also conflicts of interest within market leading institutions can be expected

to slow down the development. And maybe the pressure isn't quite high enough yet.

Will client-focused or system-based business models dominate in future?

There is one new dimension that might have a significant impact similar to index investment solutions: clientfocused and system-based business models that allow wealthy clients to professionally manage the core of their investments. While it remains unclear if such a business case would sustainably generate profits in the shorter run, it is likely that the margin pressure on private banking and wealth management will increase in mature markets. This threat is unlikely to emerge from FinTech start-ups trying to capture particular parts of the value chain. Only global players, in particular in adjacent industry segments like asset management and investment

banking or non-banks, who allocate a high share of their investments into innovative business models have the power to massively rechannel demand and attract new clients. The US market is clearly ahead of the curve when you have a closer look to the new developments and changes described in the preceding chapters.

Are we able to handle the sheer complexity of increasing regulations?

With a high level of certainty, regulation will further increase barriers for truly global models in wealth management besides lack of significant economies of scale. In particular for EU regulatory changes, the impact of Brexit and the high cost of decentralized business setups will fundamentally impact the legal entity structure and operating models. Having the right footprint, market coverage and offering is therefore key for every

strategic consideration. Nevertheless, for major developments, strategic collaboration (ecosystems) might allow the possibility of addressing issues that are too complex for players to address individually. As a Swiss example relevant for wealth managers, one could point out the need for a regulatory rules engine for cross-border (and domestic) business including service permissibility, tax product optimization, product suitability, etc.

What changes do we expect regarding client relationship and channel management?

The future of client relationships can be deduced from the fact that the value proposition within wealth management and private banking will continue to shift from a simplified categorization of demand by assets under management to key aspects of the value proposition. For UHNW and family office clients the core need lies in the ability of the provider to resolve issues around complex financial needs. For HNWI the value proposition is centered around service and experience, while for core affluent, the business model is centered around solutions (vs. products) and simplicity.

Client demand for advice, solutions and value-added services is shifting, as are expectations on channels. Intergenerational wealth transfer in the coming years might accelerate the need to adapt to target client groups (e.g. wealthy women) and the next generation of wealthy. To effectively address this change, a better understanding of wealth management clients will be required. A more systematic and holistic view, including psychographic profiling and architectures of choice, enables the adaptation of the service model, the value proposition and the client experience, and thus increase the willingness to pay a premium and capture part of the value provided.

What impact will robo- or systemenabled advisors have on our value proposition?

Today's robo-advisors provide little ability to deal with the needs of UHNW and HNW segments. How can we expect a software or an entire system to advise wealth management clients beyond the allocation of investments ensuring efficient portfolios? This view might not address a key challenge of the industry: the average relationship manager typically does not address the full potential of possibilities due to his profile and capabilities.

Thus, the question is how much potential a system-enabled wealth management advice could add to support the distribution by relationship managers or independent financial advisors. We expect the emergence of hybrid models in which systems will increasingly help the relationship managers to structure client needs. The

opportunity to increase the value-add delivered ranges from structuring client objectives, to proposing opportunities, assessing the vulnerability of the clients' portfolio, to proposals addressing personal investment themes and even covers topics of non-bankable assets.

Today we have not systematically addressed client opportunities and enabled client advisors. Systemenabled advisors will help us to do better in the future, potentially leveraging predictive analytics and artificial intelligence and increasing the specific value proposition.

ow can we execute the strategic transformation?

Start with a client-centric paradigm: Increased customer experience with psychographic client profiling and carefully designed client journeys

We do not really understand our clients and their implicit needs and wants. As a consequence, we need to focus, ask, and listen carefully and without any bias. There is a simple way to measure one's own level of understanding: it is the ability to predict the answer in communication and in behavior.

Taking the customer's perspective, we need to find out what they really value, and why. And we need to be clearer on what they are willing to pay for – one of the most challenging issues is the question how can we capture



the value generated. One key insight to resolve this challenge seems to be rooted in psychographic profiling and the alignment of the value proposition including the offering, advice, value-added services and channel preferences. In a second step, the client journey starting with the first interaction can be designed. Again the key is rooted in the fact that a systematic, client-focused approach is defined and continuously improved.

The more pragmatic and entrepreneurial front-unit teams consisting of relationship managers, investment advisors, and management (aligned with middle and back office representatives) learn, design and test innovative future ways to interact and advise high net worth clients, the more likely front momentum will emerge. Most clients do appreciate being asked for their feedback on innovative ideas that address their explicit and implicit needs.

Many initiatives today tend to fail due to lack of protection by top management and missed opportunities to overcome legacy issues in middle and back office all the way to IT. If we can create more value for clients, we will find ways to evolve our legacy systems and leverage technologies that help us to address these issues like software automation or robotics.

How can we learn from other industries relating to cross functional approaches and strategic cooperation?

The likelihood is that no individual institution will have all the ingredients required to determine and evolve to the future sustainable business model. In many domains strategic cooperation will emerge because of efficiency gains and the inability to differentiate in the customer value proposition.

We can learn from others far beyond wealth management peers and the banking industry, without being

tempted to apply concepts directly.

Thus, the question is what we can learn about leveraging innovative technologies in the domain of customer intelligence and interaction, operational excellence, and data management. We need to get all key competencies around the table: origination units, products and services, operations and IT – and without forgetting compliance, risk and tax.

As an example, the management of regulatory and business-driven rules for client interaction, advice, product suitability, tax optimization, etc. has reached a complexity that makes it impossible for all institutions to ensure compliance at acceptable cost. Market initiatives will emerge with a consortium of players cooperating in areas of synergy.

How can we reduce complexity and address one key priority at a time?

While a greenfield strategy for a wealth manager might protect a strategic initiative, they rarely successfully integrate in the business a later stage. Strategic innovation, on the other hand, struggles to survive in complex operational and organizational setups. Nevertheless, it is possible to overcome this dilemma in a combination of pragmatism and protection. A reference framework sets the overall direction of its (digital) direction wherein all single initiatives are classified.

Successful strategic transformation addresses one key priority at a time and carefully avoids complexity. In this regard, the setup is quite similar to a FinTech start-up – only that the team responsible for the initiative consists of a combination of the front-unit and a multi-disciplinary mix of innovation drivers and enablers.

It addresses a specific business that is at the core of the institution. For a multi-national wealth manager, the

initial steps are more likely to succeed with other segments than with UHNW clients.

How to maintain momentum and agility in the case of long term initiatives?

As a key learning from past initiatives the momentum of change seems to correlate strongly with the ability of initiatives to be self-funding after an initial stage or to consider monetization aspects when prioritizing initiatives. The perception of success and the ability to personally benefit from the change will likely become the strongest driver of transformation. For many wealth managers, this requires a new ability: managing impact from measures taken.

As in mountaineering, the careful use of skills and resources and time combined with a healthy ambition level results in a staggered approach with various camps or stages. Business projects need to be managed in a similar way, so that at every camp or stage value is created and a stable operating model is established. The resulting organizational and financial agility, provides management with the freedom to plan how to reach the next camp or stage.

We are experiencing the beginning of structural change in wealth management and, while the market context will strongly impact the perceived need for action, it is unlikely the wealth management industry can return to past profitability levels and business models. Redesigning Financial Services aims to contribute to the acceleration of the structural transformation. The likelihood is that no established or new organization alone will have all key competencies to address the change. Thus, let's jointly design the future of wealth management and contribute to Swiss wealth management as a key global hub of talent, competency and strategic innovation.

Strategy into the future

- a. Identifying emerging technologies: wealth managers need to equip themselves with the capacity to identify emerging technologies that are decisive for future success. These are often the ones that can differentiate a customer's experience.
- b. Building a differentiator: as products become more commoditized through technology and fee structures become more transparent, superior advice and client experience will turn into the ultimate differentiator. That is why focusing on superior advice (based on customer insights) and moving to specialized holistic wealth advisory services will likely become increasingly important.
- c. Becoming an omni-channel provider: for a better client experience clients increasingly expect access and to be served on their preferred distribution and communication channels in "near real-time". They want a wealth manager to serve them seamlessly across all channels with a completely integrated front- and back-end. A key challenge for wealth managers is to cope with the cost of the old and new world.
- d. Becoming a real wealth planner: the time for selling clients a portfolio of one-off investment products combined is over. The wealth manager of the future will center on investor goals and their financial independence and security.
- e. Partnering up: to continue to succeed, incumbents need to equip themselves with a wide range of expertise, from understanding advanced technologies to understanding changing customer behavior and to identifying winning models. The best way to secure the future is to partner with others, be it incumbents, non-banks or FinTechs who can combine the needed expertise.

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