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FinTech: Disruptions in wealth management

FinTech: Változások a vagyonkezelésben

Ez a kutatás arra kíván választ adni, hogy a digitális megoldások és személyre szabott tanácsadás hogyan fogja befolyásolni az ügyfelek befektetési hajlandóságát. Az Y generáció szkeptikus a pénzügyi szolgáltatókkal kapcsolatban. Vajon vissza tudják építeni a cégek az elvesztett bizalmukat, hogy ezt a demográfiai csoportot is megszólíthassák és megtarthassák? A digitális megoldások lehetővé teszik az aktívabb portfóliókezelést. Ez a tanulmány megvizsgálja, hogy a vagyonkezelő cégek képesek lesznek-e csökkenteni az ügyfelek kockázatait a sokkal hatékonyabb portfóliókiegyensúlyozáson keresztül. A kutatás átfogóan bemutatja, hogy a termékközpontú tanácsadást hogyan fogja leváltani az ügyfélközpontú tanácsadás a vagyonkezelési ágazatban.

Kulcsszavak: FinTech, vagyonkezelés, vagyonkezelési technikák, tanácsadási modellek

Introduction

Wealth management industry is facing a considerable stress during these days. The combined forces of the technological innovations, new regulations, intensive competition and demographic changes are disrupting the sector greatly. The global wealth is transferring between generations, thus creating a ticking demographic time bomb. Millennials, the investors of the future, have much diverse needs and expectations towards financial advisors than traditional investors had. This digitally savvy new clientele expects a faster, cheaper and better service, with transparent fees and a highly personalized advice. If wealth management firms cannot fulfill these requirements in time, they are going to lose their market share. They have no other option, but to embrace this new digital era.

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Technological development is present in the wealth management industry from a longer time, but now, beside the simple automation of certain processes, Artificial Intelligence applications are gaining ground. Machine learning, cognitive computing, blockchain, and other AI technologies will play a significant role in the future. The era has also brought the emergence of the new virtual advisor of the future, robo-advisors. This highly enhanced application makes it possible to process a vast amount of data instantly, thus giving financial advisors a huge advantage, time. They are not only able to reach a bigger client base and market segment, but also able to offer clients timely and tailored advice for their investments.

However, there are still important questions concerning the future of the wealth management industry. This paper aims to answer how these digital solutions and personalized advice are going to affect customers' willingness to invest. Millennials are skeptical towards financial service providers and their loyalty is questionable. Can firms rebuild their trustworthiness to attract this demographic group and provide satisfying services to also keep their customers and reach better customer retention rates? Digital solutions are enabling a faster reaction to market events, thus providing a more active portfolio management. This study investigates if wealth management firms will be able to decrease customers' risk through this more efficient portfolio rebalancing. This paper gives a general overview on how customer-focused advice is going to replace product-based advice within the wealth management industry and how highly personalized offerings are going to become the norm in possibly all customer segments.

1. Changes in the wealth management industry

1.1. Traditional wealth management

According to The WealthTech Book (2018) wealth management is defined as: 'The services provided by an institution[2] in order to manage the personal finances of clients[3] in order to realize individual client goals. These goals can be diverse and will differ by individual. The products and services required to realize these goals will also differ by individual client.'

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2   I. e. the wealth manager.
3   Ranging from mass affluent to ultra-high-net-worth individuals (UHNWIs).

The traditional wealth management model requires a lot of manual work and human contribution along the whole value chain. The data collection, which refers to combining data from various sources into useful information, in the traditional wealth management's front office is non-real time. The analytics of these data is a semiautomatic process, where a rule-based technology is supplemented by human contribution. The gained insights and the execution are almost fully based on human touch.[4]

1.2. Disruptions in Wealth Management

The traditional wealth management industry is under considerable stress because of present and ongoing disruptions. There are some predictions about demographic changes, which highlight that there will be a significant wealth transfer between investors and the new clients will have significantly different needs and expectations towards their financial advisors. Moreover, as digital solutions become more common, traditional clients will have new preferences regarding how their wealth should be managed. The emerging technologies make it possible to utilize big data and advanced analytics in the industry more efficiently.

1.2.1. The impact of Millennials

As the traditional baby boomer investors are started to enter their retirement,[5] their assets will be transferred to the next generations.[6] As Millennials are entering their main earning years, they are creating the most important future customer segment for wealth management firms to focus on. However, this generation has significantly diverse behavior from its predecessor's. They are the most digitally savvy generation thus they require wealth management firms to provide them with digital- and Artificial Intelligence- (AI) based services. Their most important requirements include a digital and 24/7 available service, customized and relevant advice, transparent investments, and a compliant and user-friendly platform.[7]

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4   Transformative Nature of Artificial Intelligence (AI) in Wealth Management, Capco (2017).
5   'More then 2/3 of WM clients are over the age of 60', according to Deloitte's Millennials and wealth management: Trends and challenges of the new clientele.
6   Emerging Trends in Automated Wealth Management Advice, Cognizant (2017).
7   The golden key to digital wealth management, Daily FinTech Advisers – Thomson Reuters (2016).

It is also noteworthy that as this generation experienced the 2008 global financial crises with its consequences and aftermath, they general trust in banks and financial services has lost. Thus they are skeptical and cost-conscious and may consider advice from ouwtside sources before making a financial decision.

1.2.2. Embracing emerging Technologies

The unsustainability of the current financial advisor engagement model is clear for wealth management firms. Advisors won't be able to serve a growing customer base without digital help.[8] However, as wealth management is only in the early stages of digitization, the industry has to face the disruption of outsider non-traditional financial firms.

Figure 1: *FinTech and disruptive entities*
(% of respondents who believe entitities are likely to be the most disruptive in the next five years)

Source: PwC Global FinTech Survey 2017
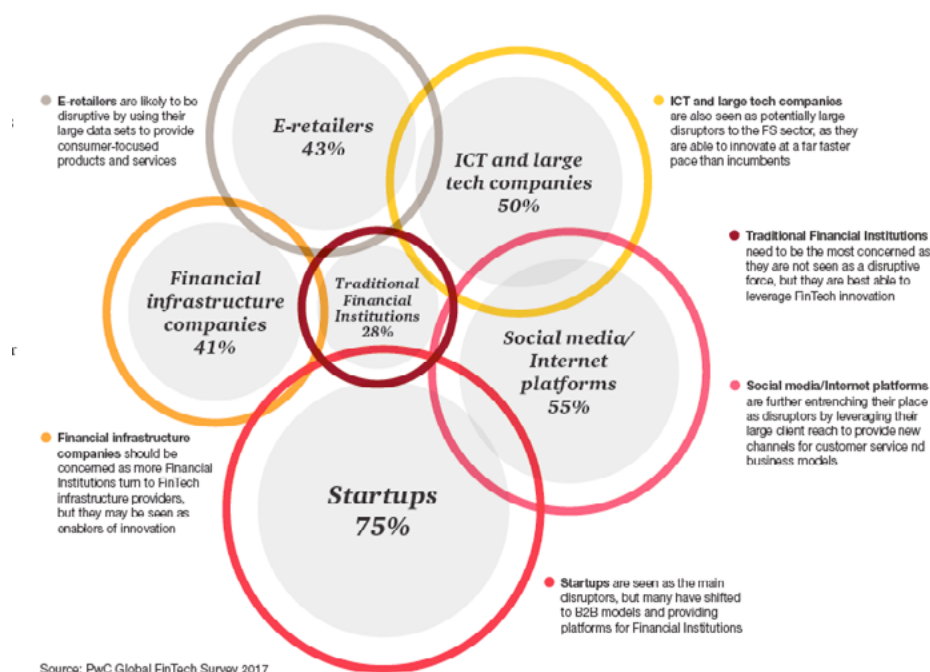
Source: PwC Global FinTech Survey (2017)

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8   Redrawing the lines: FinTech's growing influence of financial influence on Financial Services, Global FinTech Report 2017, PwC.

According to PwC's Global FinTech Survey 2017, the biggest disruptive entities of the financial market is composed of Traditional Financial Institutions, Financial Infrastructure Companies, E-retailers, ICT (Information and Communication Technology) and large tech companies, Social media/Internet platforms, and Startups. As the *Figure 1* shows, startups are the main drivers of disruption, as they want to penetrate the financial ecosystem. However, this new disruptive outlook not only poses risks to the traditional wealth management industry, but also creates new opportunities.

2. Wealthtech

'WealthTech', the digital wealth management, delivers new technology for the industry to satisfy the changing customer needs. The pressure of the decreasing demand of personal meetings, the wish for lower service fees, the requirement for personalized advice are all posing challenges for the wealth management industry which needs to be solved. This section is going to present the most significant cutting-edge solutions applied to better serve clients and to help advisors work more efficiently.

2.1. Blockchain technology

The solutions offered through Blockchain – The Distributed Ledger Technology (DLT) are impacting the core business processes. Its appealing features include that it makes records immutable, enables the share of a huge database across regions and countries, secures transactions through built-in cryptography, and enables the automation of programmable scenarios related to money (Chishti–Puschmann 2018).

2.2. Cognitive Computing, Machine Learning, and Artificial Intelligence

Emerging technologies, like Cognitive Computing, Machine Learning, and Artificial Intelligence are offering more strategic functions and the ability to extract valuable information from the big data. By leveraging on the massive data generated by clients and the increasing computer power and data storage, wealth management companies try to

adopt a more customer-centric approach and personalized products by implementing the Next-Best-Action (NBA) engine.[9]

Machine learning (ML), being a sub-field of AI, offers enhanced performance, high accuracy, low-cost computing power, and massive storage through algorithms. These features enable the easier application of machine learning and help to achieve quicker returns on investments. The more data companies possess, the better algorithms they can write which ends in a better user experience (Chishti–Puschmann 2018).

Cognitive applications are helping deep personalization and are able to answer complex client questions in real time. Moreover, high-speed automated asset trading, which uses AI-enabled Natural Language Generation (NLG), helps to use data analysis to better and quicker make investment decisions. Predictive analytics offer unique, actionable insights for the future assets which might be at risk.[10]

2.3. Robotic Process Automation

Robotic Process Automation (RPA) helps to replace basic, repetitive, and logic-based procedures by automation, which can help to eliminate workforce inefficiencies. RPA processes are built step-by-step and offer error-prone results. Thanks to automation, firms will be able to concentrate on their core business functions and value-add activities and improve both clients' and employees' satisfaction.

2.4. Robo-advisors

'Robo-advisors', online, automated investment advice, are providing sophisticated financial planning, asset allocation, portfolio optimization, and enable clients to track their investment results. Robo-advisors are offering algorithm-driven investing through risk control based on client's risk appetite and cost minimization. Robo-advisors enable the previously underserved retail investors to get financial advisory services through low costs and a low barrier entry, and they offer greater fee transparency as well.[11]

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9 Top 10 Trends in Wealth Management 2018, Capgemini (2017).
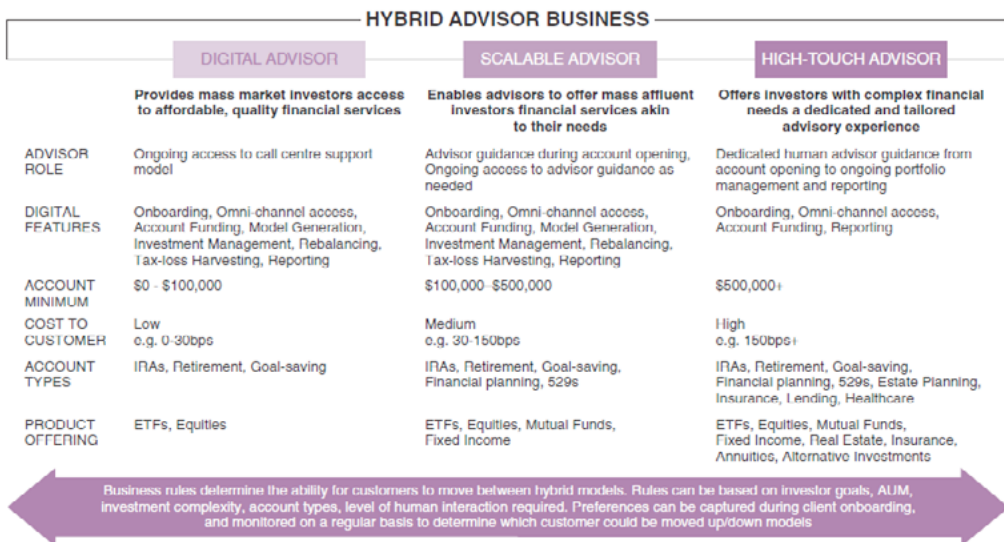10 Top 10 Trends in Wealth Management 2018, Capgemini (2017).
11 Emerging Trends in Automated Wealth Management Advice, Cognizant (2017).

Through robo-advisors the business model shifts from personal advice and delivery to algorithmic-based advice, which will be delivered online and the customization becomes an online process too. Robo-advisors enable firms to target the underserved mass affluent customer segment instead of HNW and UHNW individuals.[12]

2.5. The hybrid-advice model

Advisors fear that their job will be in danger as the increasing digitization and automation might replace them at the company. However, considering that the foundation of the wealth management industry was always based on advisor-client relationship, the flaws of robo-advisors and the clients who are not comfortable with digital solutions, human advisors will always be the key assets of the industry. Thus, as wealth management advice will be available to diverse segments with diverse needs, the industry created the hybrid-advice model.

Figure 2: *Optionalicy and flexibility of the hybrid model**

	DIGITAL ADVISOR	SCALABLE ADVISOR	HIGH-TOUCH ADVISOR
	Provides mass market investors access to affordable, quality financial services	Enables advisors to offer mass affluent investors financial services akin to their needs	Offers investors with complex financial needs a dedicated and tailored advisory experience
ADVISOR ROLE	Ongoing access to call centre support model	Advisor guidance during account opening, Ongoing access to advisor guidance as needed	Dedicated human advisor guidance from account opening to ongoing portfolio management and reporting
DIGITAL FEATURES	Onboarding, Omni-channel access, Account Funding, Model Generation, Investment Management, Rebalancing, Tax-loss Harvesting, Reporting	Onboarding, Omni-channel access, Account Funding, Model Generation, Investment Management, Rebalancing, Tax-loss Harvesting, Reporting	Onboarding, Omni-channel access, Account Funding, Reporting
ACCOUNT MINIMUM	$0 - $100,000	$100,000-$500,000	$500,000+
COST TO CUSTOMER	Low e.g. 0-30bps	Medium e.g. 30-150bps	High e.g. 150bps+
ACCOUNT TYPES	IRAs, Retirement, Goal-saving	IRAs, Retirement, Goal-saving, Financial planning, 529s	IRAs, Retirement, Goal-saving, Financial planning, 529s, Estate Planning, Insurance, Lending, Healthcare
PRODUCT OFFERING	ETFs, Equities	ETFs, Equities, Mutual Funds, Fixed Income	ETFs, Equities, Mutual Funds, Fixed Income, Real Estate, Insurance, Annuities, Alternative Investments

Business rules determine the ability for customers to move between hybrid models. Rules can be based on investor goals, AUM, investment complexity, account types, level of human interaction required. Preferences can be captured during client onboarding, and monitored on a regular basis to determine which customer could be moved up/down models

* BPS – basis points; IRA – individual retirement account; ETF – exchange traded fund.

Source: Chishti–Puschmann (2018)

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12   With traditional wealth managers they are minimum $500,000 and averagely $500,000 respectively.

According to *The WealthTech Book* (2018) 'the hybrid approach combines the best components of human-based financial advice and digital advice, offering a flexible and tailored wealth management solution to clients of all demographics'. Based on customers' complexity of financial needs and their investable assets the hybrid advice will offer three different models: high-touch advisors, scalable advisors, and digital advisors. *Figure 2* elaborates their main features (Chishti–Puschmann 2018).

3. The new business model of wealth management

Wealth management service providers are changing their business models with the help of the newly adopted technologies. The benefits of AI, blockchain, and robo-advisors will help financial advisors' work considerably by eliminating the lengthy manual processes with automation and by offering real time portfolio and investment tracking. The following *Figure 3* summarizes the most important changes in the proportion of human and digital touch through the value chain.

Figure 3: *Front-office progression of data, analytics, insight and execution between different models*
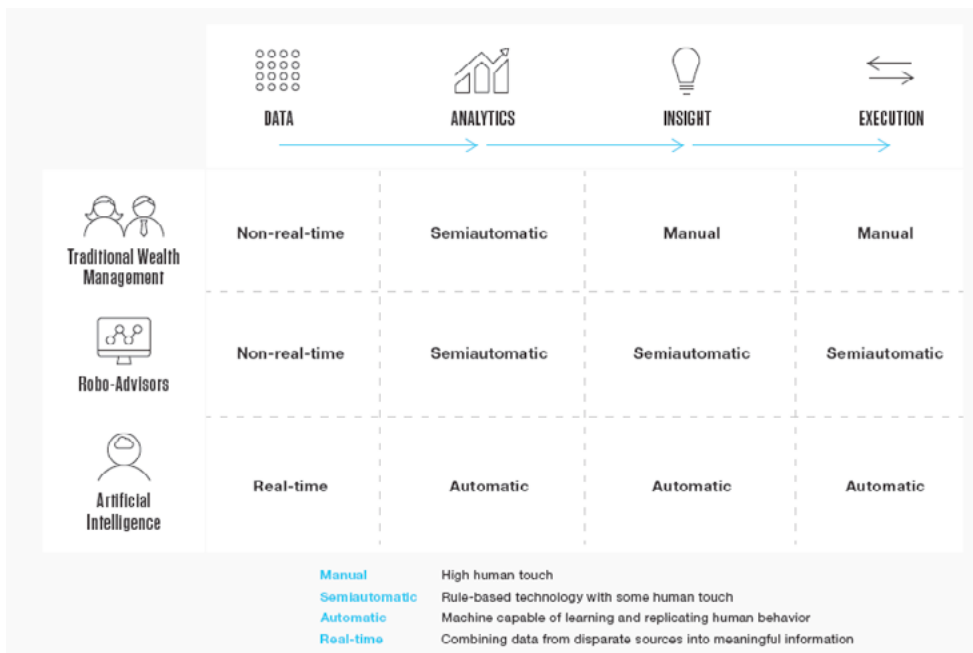
Source: Transformative Nature of Artificial Intelligence (AI) in Wealth Management, Capco (2017)

While advisor-client relationship will remain the most important aspect of the industry, the enhancement of customer experience will also come to the center of attention. WM firms try to foster their services through the leverage of digital channels, the adoption of hybrid models, the customer-based approach, and applications of AI for analytics.[13, 14]

4. The effects of the digitized wealth management industry

To complement my research, I have used primary and secondary research methodologies as well. For primary research I have conducted two interviews[15] and I have prepared a questionnaire[16]. I chose these types of methods, because with the questionnaire I was able to gather multiple responses and opinions about my specific questions by preserving participant anonymity. However, as a questionnaire doesn't provide in-depth responses, I felt the need to complement it with more inclusive interviews to hear industry experts' opinions about and attitudes towards the topic, and particularly how they see the Hungarian situation.

For my interviewees, I chose a wealth management director from a Hungarian investment management company,[17] and Szilveszter Farkas PhD who is a senior research fellow and teaches FinTech for Master's students at Budapest Business School. For secondary research, I have used results from existing researches in the topic of FinTech, AI in Wealth Management, and robo-advisors.

4.1. How digital disruptions affect customer retention rates

The lost trust and low investment returns after the financial crisis have made it difficult for WM firms to retain their clients. Moreover, presently FinTech firms disrupting the WM industry as they offer low-cost and convenient investment offerings.[18]

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13   Top 10 Trends in Wealth Management 2018, Capgemini (2017).
14   FinTech: Disruptions in Wealth Management, E.V. Eckert, Research Paper for Scientific Students' Associations Conference, 2018.
15   For the detailed interview questions see Annex 1. and Annex 2.
16   For the detailed questionnaire see Annex 3.
17   The interviewee asked for his privacy, thus I am going to refer him anonymously
18   Top 10 trends in Wealth Management 2018, Capgemini (2017).

Millennials have little or no brand allegiance and are open to seek advice from different sources. They are cost-conscious and skeptical towards financial service providers and their loyalty is questionable. Moreover, they are more than comfortable with technology, thus they might find interest in the offerings of FinTech firms. Wealth management firms have to reskill their advisors and adopt new offerings to meet Millennials' needs.

Furthermore, AI applications are able to notify advisors, when they assess that clients might be inclined to leave the firm and AI can recommend targeted actions.[19] AI applications help advisors to stay up-to-date with clients' circumstances, thus advisors will be able to find new engagement opportunities with clients continuously. Moreover, the nurturing of clients also plays a big role in terms of retention, consequently advisors are encouraged to send personal notes or small presents to their clients beyond the periodic portfolio reviews (Chishti–Puschmann 2018).

Based on my research, I would like to accept the hypothesis that the risk concerning customers' retention is going to decrease, however it has contradictory opinions as well, because the contradiction is mainly targeted towards the Hungarian status and not the global trends.

4.2. Can WealthTech applications enhance consumers' willingness to invest?

Digitization, the increasing application of AI, and robo-advisors made it possible for wealth management firms to enter a previously underserved consumer segment, the mass affluent. Low-cost, personalized solutions are attracting less-affluent consumers, who might be the future high-net-worth investors. Furthermore, present UHNW clients have also found a keen interest in robo-advisors, which can further enhance their investments.[20]

70% of the questionnaire participants would invest their money if they could do it at a low cost, even without personal advisors. Moreover, 84% would be happy if they could get a highly personalized investment advice even for a smaller investment.[21]

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19 Digital wealth management: Driving engagement through data-driven insights, PwC (2018).
20 Top 10 trends in Wealth Management 2018, Capgemini (2017).
21 'How FinTech changes the financial behavior of students in higher education?' questionnaire.

However, with the increasing number of cybercrimes, cybersecurity is an important concern of WM firms. The increase in digitization and the reliance on the cloud and other emerging technologies create further exposure for cybercrimes. It has also drawn the attention of regulators who introduced stronger measures and heavy penalties regarding cybercrime.[22, 23]

Moreover, when the questionnaire participants were asked if they would trust their investment on an AI robot, the majority (37%) were quite uncertain, and 40% would not trust in them.[24]

Based on these results and findings, I would like to leave the hypothesis that 'customers' willingness to invest is going to increase' open for further research.

4.3. Can faster portfolio rebalancing decrease clients' risk?

As with the quick movement of huge amounts of money, by also keeping low margins, WM firms can acquire huge yields, algorithmic portfolio rebalancing is very important to them.[25] One of the biggest benefits of the combination of AI and algorithms is, that by the availability and processing of a huge amount of data, AI is able to send alerts to advisors during unfortunate market events. Consequently, either 'traders can undertake some appropriate trading moves to adjust the positions,'[26] or built-in algorithms can rebalance the portfolio very quickly to the optimum level. Moreover, predictive AI algorithms rebalance the portfolio either with a predefined frequency, or if a significant change in the forecast exceeds a threshold (Chishti–Puschmann 2018).

Moreover, digital applications optimize the diversification of portfolios and they can decrease the reaction time for market events. This not necessarily decrease the risks of customers, rather customers will be able to make decisions much faster and easier, thus their potential yield can increase.[27]

However, as AI and the automated processes are always accompanied with systematic risks, the over-reliance on them can cause serious volatility and flash crashes (as it

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22   Top 10 trends in Wealth Management 2018, Capgemini (2017).
23   For detailed information see Annex 23.
24   'How FinTech changes the financial behavior of students in higher education?' questionnaire.
25   Interview with Szilveszter Farkas, PhD.
26   Transformative Nature of Artificial Intelligence (AI) in Wealth Management, Capco (2017).
27   Interview with the Hungarian wealth management director

happened before on Wall Street). The prevention of such outcomes should be one the highest priorities of WM firms, hence machine learning should be validated by continuous tests and scenarios (Chishti–Puschmann 2018).

Based on these results, I would like to accept the hypothesis, that with AI applications fast portfolio rebalancing can decrease the risks of customers.

Conclusion

This paper investigated the caused disruptions of emerging financial technologies on the wealth management industry. One of the biggest disruptors for the industry are the Millennials. This generation possesses radically different behavioral attributes than the current investors, thus incumbents should transform their business model, offerings, and services according to Millennials' likeness.

As not everyone is comfortable with the usage of technology and as there are situations where human advisors are indispensable, this paper elaborated the potentially most viable solution, the hybrid advisory model. While some fear that human advisors will be fully eliminated from the wealth management value chain, machines are not substituting, rather amplifying human actions and decisions and enhance their understanding about their clients. 'AI is not merely a new tool, but a radical shift that makes technology ubiquitous yet invisible and intuitive to use' (Chishti–Puschmann 2018). AI helps to eliminate time-consuming processes and enhance the economics of WM, thus giving time for advisors to add real value to the business and to be able to give quality and tailored advice to their clients.[28] Wealth management has always been based on the relationship between advisors and clients and this is going to remain the foundation for the future too.[29, 30]

The digitization of wealth management is happening, somewhere in a slower, somewhere in a faster pace. Those who don't follow this trend will lose their market share. While Millennials require overall digitization, later generations might want to return to personal relationships besides digital solutions as well. However, it has to be kept in mind, that machines are to augment human advisors to help them better serve their

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28 Interview with the Hungarian wealth management director
29 'How FinTech changes the financial behavior of students in higher education?' questionnaire.
30 For detailed information see Annex 4.

clients. The biggest question for the future is: where is the golden mean between human and machine interaction?

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