

Institution: University of Reading		
Unit of Assessment: 17, Business and Management Studies		
Title of case study: Improving Decision-Making for Retail Investors Through Risk-Profiling		
Period when the underpinning research was undertaken: 2016–18		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Chris Brooks	Professor of Finance	2006 – present
Carola Hillenbrand	Professor of Organisational Psychology	2008 – present
Kevin Money	Professor of Reputation and Responsible Leadership	2006 – present
Period when the claimed impact occurred: 2018–20		
Is this case study continued from a case study submitted in 2014? No		
<p>1. Summary of the impact</p> <p>Delivery of appropriate financial advice to retail investors is challenging because most investments carry varying degrees of risk, while willingness to accept this in exchange for higher expected returns differs from one person to another and is hard to measure. Research at the University of Reading led by Chris Brooks developed a new attitude-to-risk questionnaire (ATRQ), which is widely used by independent financial advisers (IFAs) in assisting their clients to select products that are appropriate for their risk appetite. The new ATRQ helps to ensure the suitability of the investment products and to avoid legal risk for the adviser. Since its launch in February 2018, the questionnaire has been used by almost 200,000 retail investors when meeting with over 2,000 financial advisers, and it currently constitutes around 20% of all such questionnaires completed in the UK.</p>		
<p>2. Underpinning research</p> <p>The impact discussed in this case study arose from an ESRC funded project (GBP523,883), awarded to Chris Brooks and Carola Hillenbrand, and which was co-designed with an industry project partner. The project was part of a continuing interdisciplinary collaboration between Brooks (a finance academic), and Hillenbrand and Kevin Money (both chartered psychologists), during which principles from psychology were applied to choices and behaviour in financial contexts. This project specifically aimed to examine in detail the process by which retail investors in the UK make financial decisions via independent advisers, focusing on the effects of the cognitive and emotional biases of investors in the decision-making process and the possible consequences thereof.</p> <p>The first stage of their funded project involved a thorough investigation of a database containing completed ATRQs as well as other information about the retail clients of IFAs, including demographic profiles, wealth levels and employment status, resulting from more than half a million interactions between IFAs and their clients. The database was obtained from ESRC project partner Distribution Technology, which is the UK's leading provider of such questionnaires to IFAs, as it includes them in its suite of software and analytical tools.</p> <p>ATRQs constitute the predominant and preferred approach used in the industry to assess investor risk tolerance. The project team developed an in-depth knowledge of the existing ATRQ – notably its strengths and weaknesses – used by the company, based on the detailed statistical analysis they conducted, and this underlying research formed the outputs by Brooks, Sangiorgi, Hillenbrand and Money [refs 1 and 2]. This quantitative approach was combined with a series of focus groups comprising industry professionals and staff at the company to investigate the challenges with their existing questionnaire design and the</p>		

features that a new approach would ideally contain. The research team then conducted an in-depth online survey with around 1,000 respondents from the general public to test a large number of possible replacement questions (around 50).

A final set of questions for the new questionnaire was selected, on the basis both of their individual efficacy and of their ability to cover a range of dimensions of risk with an intuitive three-factor solution when subjected to a principal component analysis. This solution mapped onto the cognitive, emotional and behavioural aspects of risk, and the researchers also developed an overall aggregate scale that appropriately combined information from the individual questions into an intuitive overall risk-tolerance measure.

The research team's new ATRQ has several important advantages over the existing one, including that is grounded in psychometric theory, and that it considers emotional dimensions of attitude to risk as well as cognitive and behavioural aspects, which is highly innovative as the approach used by other providers does not include an emotional element. Evidence from the psychology literature highlights the importance of emotions in explaining financial choices – for example, anxious investors tend to dwell on previous losses, while those with a predisposition to anger have more of an internal reference point and consider circumstances to be forecastable and low risk. Additionally, the fear of regret can lead to irrational decision-making. The questionnaire design drew on the research by Hillenbrand, Saraeva, Money and Brooks [ref 3] regarding the effects that emotions can have on financial decision-making.

The project team ensured that each question was succinct and did not involve long examples or diagrams which could be misinterpreted. They also endeavoured to draft each question in plain English, using as little specific financial or statistical terminology as possible, so that they were easy to understand by both experienced investors and clients with no prior knowledge or background in investment. The training of two of the research team as psychologists helped to ensure that the questions minimised the possibility of behavioural biases in decision-making leading to inappropriate outcomes. The process to develop the new questionnaire is described in detail in Brooks, Hillenbrand and Money's 2019 output [ref 4].

3. References to the research

ESRC Grant, 'Understanding the decision-making of retail investors', October 2016 – September 2020, FEC GBP523,883, ES/P000657/1.

1. Brooks, C., Sangiorgi, I., Hillenbrand, C. and Money, K. (2018) '[Why are older investors less willing to take financial risks?](https://doi.org/10.1016/j.irfa.2017.12.008)' *International Review of Financial Analysis*, 56. pp. 52–72. doi: <https://doi.org/10.1016/j.irfa.2017.12.008> (Blind-refereed ABS 3* journal).
2. Brooks, C., Sangiorgi, I., Hillenbrand, C. and Money, K. (2019) '[Experience wears the trousers: Exploring gender and attitude to financial risk](https://doi.org/10.1016/j.jebo.2019.04.026)'. *Journal of Economic Behavior & Organization*, 163. pp. 483–515. doi: <https://doi.org/10.1016/j.jebo.2019.04.026> (Blind-refereed ABS 3* journal).
3. Hillenbrand, C., Saraeva, A., Money, K. and Brooks, C. (2019) '[To invest or not to invest? The roles of product information, attitudes towards finance and life variables in retail investor propensity to engage with financial products](https://doi.org/10.1111/1467-8551.12348)'. *British Journal of Management*. doi: <https://doi.org/10.1111/1467-8551.12348> (Blind-refereed ABS 4* journal).
4. Brooks, C., Hillenbrand, C. and Money, K. (2018) *Developing an Attitude to Risk Questionnaire for Retail Investors*, Working Paper and White Paper written for Distribution Technology. doi: <http://dx.doi.org/10.2139/ssrn.3598326>

The underpinning research for this case study was funded by a major, heavily refereed ESRC grant and comprises three papers published in competitive double-blind peer-reviewed journals (one paper in an AJG/ABS 4*-rated journal and two papers in 3* journals), as well as an unpublished working paper. The research meets or exceeds 2* quality definitions, and uses rigorous quantitative methods and surveys with previously unused data to develop important new knowledge about retail investors.

4. Details of the impact

Financial planning and investment by retail investors is fraught with many and increasing difficulties. There is much evidence that the choices they make are often inappropriate, and yet their decisions are very important and could have a profound effect on the financial resources they have available (particularly in retirement). Recognising the complexity of decision-making processes around investment, the Reading research has developed a new questionnaire which more accurately assesses retail investor attitude to risk and allows IFAs to propose the most appropriate financial product choices for their clients. The development of the tool is timely, as it is set within the context of social and demographic changes, including our ageing population, diminishing annuity and savings rates, availability of a wider range of investment products, and changing employment patterns. This means that investment decisions are increasingly complex yet more important than ever.

Many retail investors make financial decisions with the support of a financial adviser. The first step in the process of selecting appropriate investments is usually for the adviser to present the investor with an ATRQ, to gauge their willingness to take financial risks. For these clients, if the questionnaire is not appropriately designed, there is the possibility that they could be advised to select unsuitable investments. Such products could either be too risky (the client ends up bearing more risk than they are comfortable with, leading to many years of worry and recriminations if the investments do incur losses) or not risky enough (so that average investment returns are too low to achieve desired lifestyle goals in the future).

Working with the project partner, Distribution Technology, the research team developed a new scale aimed at measuring attitudes to financial risk. This engagement, incorporating the latest research and psychometric thinking, continues today [source 1]. Risk appetite is typically measured on a scale of 1 to 10, with 1 representing highly risk-averse and 10 implying considerable risk tolerance. With expertise in psychology, reputation and finance, the Reading researchers were in a unique position to understand the business needs of the company and also to provide an advisory and challenge role through the appointment of Brooks to the company's Investment Committee and to their Financial Planning Advisory Board from 2016.

The research has meant that IFAs are now equipped with a more robust tool than was previously available, providing psychometric analysis (including emotions) alongside an assessment of financial acumen, enabling them to accurately map the investor's appetite for risk to the appropriate financial assets. Thus, the questionnaire has an important role to play in relation to the focus of the Financial Conduct Authority (FCA) on supporting consumers to make the right financial decisions by ensuring that the advice market develops the right recommendations or guidance. The new tool therefore helps IFAs to avoid the risk of subsequent legal action by enabling them to ensure regulatory compliance in their processes. This is particularly important in the light of recommendations which emerged from the FCA's Retail Distribution Review and the Treasury's Financial Advice Market Review, where the aim is to underpin an industry which delivers affordable and accessible financial advice and guidance to everyone, at all stages of their lives.

Increasing business through trust and regulatory compliance

The adoption of the revised ATRQ by Distribution Technology is significant both for the company and the IFAs who use it. The company states: "Between the introduction of the new questionnaire in February 2018, and the end of October 2020, the questionnaire was completed nearly 200,000 times. 65% of risk profiles carried out using our system, which is the leader in the UK, are now done with the new questionnaire, and we expect this to rise even higher once we finish building our next version of Dynamic Planner" [source 1]. Furthermore, they continue, "the new questionnaire developed at the Henley Business School is now one of the most important components of our software. The purpose of our business is to help advice firms match people with suitable portfolios as part of an engaging financial planning experience. Accurately risk profiling investors, which is what your questionnaire does, is central to this" [source 1].

Importantly, Distribution Technology's product ensures compliance with FCA guidelines by separating out traits such as attitude to risk from investor experience and capacity for loss. As a result, Distribution Technology is experiencing business growth with the changed ATRQ, enabling it "to produce high quality due diligence documentation, which has helped us win some big clients and our overall revenue from advisers is growing at 25% a year". Moreover, the continued engagement with the research team has enabled the future-proofing of the software, giving the company "flexibility to react to future legislative changes and new psychometrics techniques. Working with the Reading academics, we will be able to make changes to the attitude to risk questionnaire if needed. If we decide we want to measure specific psychological traits, we can, or if we decide to show a breakdown of cognitive, behavioural, or emotional traits, or a breakdown between enablers, constrainers and drivers we can do that too" [source 1]. With modification to "to suit specific markets in other countries", this flexibility is also enabling expansion to the global market as part of the company's business growth strategy, with its first expansion into an EU country in negotiation [source 1].

The questionnaire also enables IFAs to be more confident in their advice and less likely to fear future liability. Financial advisers now have greater confidence in using the questionnaire, with one company, Chase Buckingham, stating that they now know that they are "asking all the right questions; we know we are not missing anything, and we know that a client's capacity for loss is covered within it as well. We definitely would recommend it to a fellow IFA, because, like I said, it is so widely recognised" [source 3]. There has also been increased confidence in terms of regulatory compliance. Jan Oliff, a user of Dynamic Planner, said: "I needed to find ways to keep [my business] moving forward compliantly" [source 4].

Improving consumer confidence in investment decisions

A further benefit of the new questionnaire is that it helps to ensure that the advisory process runs smoothly, thereby improving trust in financial services by giving consumers more confidence in the advice that they receive, which results in benefits for IFAs in terms of increased business and for customers in terms of their peace of mind.

The new questionnaire considers emotional as well as cognitive and behavioural aspects of attitude to risk. It therefore enables advisers to provide the most suitable guidance for their clients in order for them to fulfil their long-term financial goals whilst understanding the potential for short-term market downturns. The outcome of the ATRQ is important for each client, since the Reading research [ref 1] indicated that that was the main determinant of the type of financial product that they ended up selecting and level of risk they took on.

The design and wording of the questionnaire act as a springboard to effective conversations between client and adviser about how much risk the former wants to take. This has a positive impact on customer retention within the sector, with the Distribution Technology recognising that "accurate risk profiling is building longer, deeper relationships" [source 5]. Reports from the IFAs are noting "positive engaged experiences" and that "clients are more engaged with the questionnaire". There is also "significantly less confusion or debate about what the questions mean. This questionnaire still challenges clients to think and reflect [on] the importance of making the right choices, but [they] are much less distracted by thoughts that the questions don't make sense. As an advisor, I feel more comfortable in sending these questionnaires out via email" [source 2].

The IFA sector is also reporting how the ARTQ is facilitating engagement during "challenging market conditions" in the absence of face-to-face meetings with clients during Covid-19 restrictions. One large firm with over 3,000 clients and managing GBP220,000,000 in client assets reports that "clients have become more engaged with the new questionnaire, particularly since this has been available electronically. Through this increased engagement, our clients better understand the relevance of what they are being asked and [it] allows for more open and frank discussion about their attitude towards risk and the range of risk matched investments solutions that might be available to them." In turn, and despite the

challenges of Covid-19 restrictions, this has “has streamlined our client on-boarding process and in turn has led to a perceivable increase in new business” [source 2].

In summary, the research has addressed a key challenge in the financial advice sector, where attitudes to risk need to be aligned appropriately with financial advice. It has applied principles from psychology to choices and behaviour, providing a way of making a more robust assessment of consumer risk appetite. This directly addresses the more stringent recent FCA guidance, which states that “investor experience and capacity for loss should not be conflated with attitude to risk” [source 1], as well as recommendations from the reviews of the Financial Advice Market by the Treasury and the FCA requiring the industry to deliver more robust financial advice.

The new questionnaire has been universally well received by advisers who have adopted it, and provides a more accessible, better informed and more confident basis for decision-making by the consumer. Its usage is growing rapidly, with an average monthly completion of around 9,000 plans in the UK, with each plan often being made jointly between two partners, each having completed separately an attitude to risk questionnaire. The level of client appetite for risk assessed by the ATRQ exactly matches the risk level of the product which is eventually selected 70% of the time, implying that the questionnaire is providing an outcome that advisers and their clients are happy with and do not feel the need to modify. To provide an idea of the scale of importance of the process in terms of financial outcomes, Distribution Technology estimates that over GBP3,000,000,000 is invested in financial products after the client’s risk-tolerance level has been assessed using the Reading ATRQ.

5. Sources to corroborate the impact

- [S1] Testimonial from the company Distribution Technology, regarding the number of users of the questionnaire and how important it is to their business.
- [S2] Reports from IFAs on using the new ATRQ.
- [S3] [Chase Buckingham Case Study](#).
- [S4] [Jan Oliff Financial Planning Case study](#).
- [S5] [Dynamic Planner Investment Process](#).