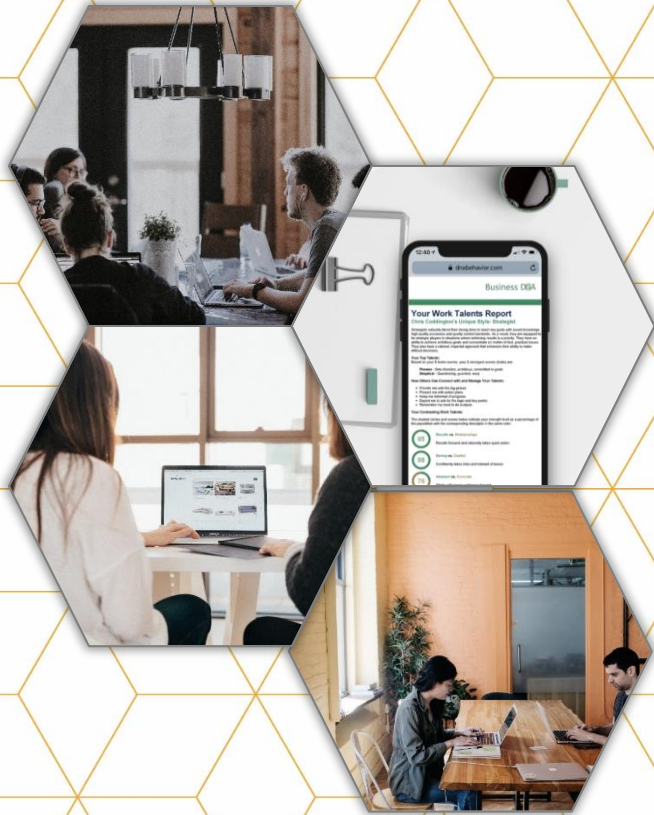


DNA Behavior's Behavioral Science Competitive Advantage

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DNA Behavior®

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About DNA Behavior:

Since 2001, DNA Behavior International is the only firm globally that deploys an all-in-one Behavior Tech Platform that enables businesses to scientifically measure behavioral insights to “know, engage and grow” both employees (including advisors) and clients. DNA Behavior mainly operates three primary brands Financial DNA®, Business DNA®, and Communication DNA® to uncover over 4000 independently validate behavioral insights using two approaches, a demographic data “quick scan” and a full validated psychometric assessment “MRI scan.”

Operating under its three brands, DNA Behavior® specializes in revealing behavioral finance insights (behavior + money attitudes) wired into individuals and being able to understand (at a deep level) what motivates people to make their life, financial, and workplace decisions. DNA Behavior is the world’s only behavioral science toolset that reveals money attitudes in addition to individuals' approaches to communication, investing, spending, goals, workplace decisions and hundreds more.



The Opportunity for Enterprises:

Create an enhanced business competitive advantage by deploying DNA Behavior’s all-in-one Behavior Tech Platform to its employees (and advisor networks) and clients. DNA Behavior can be leveraged to help enterprises immediately create customized experiences on a mass-scale for millions of people and eventually build a multi-faceted Behavioral Sciences Division.

A Behavioral Sciences Division would be the go-to place where any employee, advisor, or department could access a team of behavioral experts and technology to improve performance and

“Increasing numbers of companies are looking to build a behavioral science team — one that is located at the very center of their business and that the whole organization can benefit from.”

-Harvard Business Review, 2017
[Click here to read](#)

unlock behavioral blockages with clients and coworkers. This department would promote and with technology, deploy new behavioral finance and behavioral workplace trends across the organization, and every corporate, family and individual client.

Behavioral Finance, A Growing Trend:

Over the last five years, leading firms such as Vanguard have produced research (Advisors Alpha – Putting Alpha on your value in March 2015), which highlights the importance of a behavioral-based approach. The Vanguard research shows that the value of behavioral coaching (advice) to a client is worth 150bps per year, and other research studies show, on average, between 100 and 200 bps. For advisors this provides a substantial justification for their fees.

The other important metric linked to human behavior is client engagement. Advisor Impact research on Client Loyalty conducted in 2012 shows that emotionally engaged clients refer, on average two new clients each year. Even when you consider that typically only up to 15% of a firm’s client base is engaged, when the engagement goes up this number increases substantially, leading to much higher revenues. The key factors to boosting client engagement are meaningful communication, strong leadership, and a true client partnership, which are specialties of the DNA Behavior platform.

Based on our behavioral research, only 40% of advisors are matched to the styles of their clients. This leaves a natural 60% relationship “black hole”. So an increasing number of firms are seeking to close the gap with improved advisor-client matching, and building advisory service teams with different styles leading to higher engagement and also productivity.

Based on client studies, our research shows that when financial planning, insurance, banking, and funds management firms apply behavioral finance insights, productivity increases by over 20% per year. The use of DNA Behavior behavioral insights leads to higher and quicker conversion of prospects to revenue-generating clients, increased retention, and increased share of wallet.

In the past year, Charles Schwab Investment Management also found that 56% of advisors are interested in using Behavioral Finance tools but have not yet identified a toolset to provide all the capabilities they are seeking. Below is a listing of the top four behavioral finance toolsets available to advisors and the features that they offer.

| | DNA Behavior’s Financial DNA | FinaMetrica | Riskalyze | StratiFi ¹ |
|---|------------------------------|--------------|--------------|-----------------------|
| Format of questions | Forced-Choice (“Ipsative”) | Likert model | Likert model | Likert model |
| Risk-taking propensity | Yes | No | No | No |
| Risk tolerance | Yes | Yes | Yes | No |
| Situational risk (based on changing circumstances, experiences, beliefs, values, and education) | Yes | Yes | No | Yes |

| | | | | |
|---|----------|----------|----------|----------|
| Measurement of risk associated with current investments | No | No | Yes | Yes |
| Financial Risk Capacity | No | No | No | Yes |
| Enterprise features | Yes | No | No | No |
| Behavioral biases | Yes | No | No | No |
| Spending patterns | Yes | No | No | No |
| Advisor-Client Matching | Yes | No | No | No |
| Communication Style | Yes | No | No | No |
| Learning Style | Yes | No | No | No |
| Customized scripts | Yes | No | No | No |
| Real-time market predictions | Yes | No | No | No |
| Workplace insights ² | Yes | No | No | No |
| 4,000+ Insights | Yes | No | No | No |
| The shelf life of results | Lifetime | 6-months | 6-months | 6-months |

1: StratiFi is a strategic partner of DNA Behavior. StratiFi's proprietary risk calculation outlined above will be supplemented with Financial DNA insights starting in early 2020.

2: Please refer to the attached schedule showing a comparison of Business DNA against other workplace assessment systems.

Many Firms Attempt to Build their own Behavioral Finance Tool and Fail:

An emerging trend with enterprises is to build custom behavioral finance tools in-house. In our experience, designing validated and scalable behavioral instruments with a high degree of reliability takes 65+ person-years of unique behavioral expertise spread out over a 10+ year time frame (through different market cycles), a large pool of research participants, and large capital investments. The inherent costs, time horizon, and risks of running these large-scale behavioral finance programs carry significant business risks. Below are examples of firms that have attempted or are attempting to build their own risk or behavioral assessment in-house.

- TD Bank
- Bank of America (*project abandoned*)
- Schwab
- Wells Fargo (*communication only*)

Other Firms Use "Money Cards":

Some firms such as United Capital opt to use money cards (think flashcards or digital cards), and others are starting to use home designed gamification apps that advisors present to their clients to gauge their reaction to goals and values to facilitate discussions. DNA Behavior's view on these tools is that they are difficult to train advisors how to use, not scalable across the enterprise, and are not (and cannot be) a validated measurement that can be used for compliance and portfolio allocation purposes.

The Science behind Financial DNA:

When our research team initially designed the Financial DNA platform, the overall objective was to build a system that would holistically uncover all dimensions of a client's financial personality. It was important that the system firstly uncovers the client's natural instinctive behavior, which would reliably predict their long-term pattern of decision-making free from situational (and socio-economic, market perception, and educational) bias and therefore, would be their "go-to" style under pressure. Further, the assessment of behavior needed to be broad and deep enough to uncover a wide range of personality factors which would identify how clients make decisions (including their inherent biases), take advice, interact and build relationships, achieve results, handle information, manage budgets, develop trust, set and achieve goals, take and live with risks and learning styles.

In finalizing our approach in April 2001, we conducted extensive research on which psychometric assessment model would be most reliable in terms of predicting deep-rooted personal behavioral traits that would be valid for long-time periods. We saw this as critical for long-term financial planning and portfolio management. Our research concluded that the use of a Forced-Choice ("Ipsative") Assessment Format would produce the best results for discovering client Natural Behaviors without bias, and a separately used Likert Scale Format would produce the best results for discovering situational Learned Behaviors that would change over time. With this approach, Financial DNA offers the best of both world's starting from the right foundation of using a specifically designed Natural Behavior Discovery Process and then progressing to a Learned Behavior Discovery which may highlight situational adjustments that are needed for changing circumstances.

All other "Fintech" Risk Profile solutions available in the market (back in 2001 and even today) only use a Traditional Likert-type Scoring Model (Self-scoring in ranges of 1 to 5 or 1 to 7 as to how a particular situation would apply or use a True/False approach).

Our investigations identified the following:

The traditionally used Likert-type questionnaire formats have been academically disproven to produce sufficiently accurate or reliable predictions of behavior over long periods. As identified above, the questionnaire structure by its fundamental nature leads to results which will change over time.

Other "FinTech" Risk Profiles available also use a Likert Scoring model which allows for self-promotion and a higher chance of faking, which inherently inhibits their shelf life and accuracy (results of typical risk profile had ranging shelf lives of 6-months to 1-year).

Independent academic research shows that Likert Model Risk Profiles overinflate the risk scores one standard deviation higher than under a Forced-Choice (ipsative) format. In the context of risk profiling, this level of inaccuracy could have a materially negative impact on a client's investment portfolio.

In conclusion, forced-choice measures don't allow for self-promotion and will provide a more accurate reflection of a person's life and finances, decision-making, strengths, and struggles over longer periods. Therefore, we believe that this approach adopted by DNA Behavior for deploying Financial DNA must be the Platinum Standard for any process used for financial behavior discovery in preparing a financial plan and building an investment portfolio.

Appendix: Other competitors

Tolerisk:

This is a risk tolerance tool. Tolerisk measures only risk tolerance & provides market simulations based on the risk score. We view this firm as a similar (less visually appealing) competitor to Riskalyze. The competitor analysis doc we provided goes into depth on the psychometric model we have versus these tools that only measure risk tolerance. Their results are unvalidated and have a shelf-life of 6-months because their results are very situationally dependent.

Syntoniq:

We are very familiar with them- in fact, Prasad looks up to Hugh (our founder) as a BeFi visionary. Prasad has used some of Hugh's thinking to develop some of the Syntoniq methods. Recently, Prasad approached us to use our Financial DNA API & questionnaire in their app. Our understanding is that Syntoniq is in its infancy, they have tried to build their own questionnaire and have hit some roadblocks with the resources required to test, retest, and validate a BeFi instrument. In behavioral sciences, the resources required to do anything at scale is a huge roadblock to get enterprise deals. We believe this is why he approached us to white-label our insights- to use our research.

Totum:

Totum is not a behavioral finance toolset. Totum's focus is to help advisors understand the portfolio risk their clients can withstand and still be able to achieve their goals. This tool goes into cost of living (by zip code), financial goals, and other financial scenarios. Financial DNA can integrate to tools like Totum to provide an additional behavioral finance dimension. This is essentially what we did with AMP in AU. They leveraged the Financial DNA API to get the behavioral finance insights and then built an in-house tool like Totum (albeit much more sophisticated) to provide portfolio risk scenarios and market simulation analysis.

FinLife Partners (United Capital):

We have researched the [Money Mind](#) questionnaire that is embedded in the FinLife CX platform. Money Mind falls into our "Money Cards" category in our competitive research document – we actually listed them in the paragraph in this section of our doc as "United Capital". Below is a screenshot of their questionnaire. DNA Behavior's view on these tools is that they are not scalable across the enterprise, vulnerable to bias and are not (and cannot be) a validated measurement that can be used for compliance and portfolio allocation purposes.