



Performance
Measurement



Strategic
Management



Profit & Process
Improvement



Board & Management
Advisory Services



Financial
Advisory

TKG Perspective

Teaching & Speaking Engagements

Washington Bankers Association
Executive Development Program
Washington Athletic Club
Seattle, WA **April 5**
Bank Profitability

Montana Bankers Association
Executive Development Program
Helena, MT **April 6**
Bank Profitability

Utah Bankers Association
Executive Development Program
Wasatch Retreat and Conference
Center
Salt Lake City, UT **April 7**
Bank Profitability

Pennsylvania Bankers Association
School of Banking
The Penn Stater Conference Center
State College, PA **June 4-8**
*Strategic Decision-Making and
Organizational Structure*

Conferences, Conventions & Other Events

New Jersey Bankers Association
*Annual Senior Management
Conference*
Borgota Hotel & Casino
Atlantic City, NJ **November 1-3**

Council of Professional Women in
Banking and Finance
Quarterly Networking Meeting
Federal Reserve Bank of Richmond-
Baltimore Branch
Baltimore, MD **November 3**

New York Bankers Association
*Long Island Bankers Division Fall
Dinner Meeting*
Southward Ho Country Club
Bay Shore, NY **November 22**

Financial Managers Society New
York-New Jersey Chapter
Holiday Party and Toys for Tots
The Fiesta
Wood-Ridge, NJ **December 6**

Financial Managers Society
Philadelphia Chapter
Holiday Party
National Constitution Center
Philadelphia, PA **December 8**

The Lawnmower Man: Your New Virtual Assistant?

By: Richard B. Trauger, Jr., Managing Director

Was Hollywood clairvoyant when in 1992 it released the film “The Lawnmower Man”? The Lawnmower Man was a full-length feature film about how the main character, Jobe, quickly transforms from a person who mows lawns into a virtual presence. The premise behind this TKG Newsletter is that technology is taking the next big leap, right before our eyes, into the world of “learning machines”. We’d like to provide some thoughts on what recent advances in artificial intelligence may mean to community banks: how they evaluate compliance, manage risk and interact with their customers.

A Brief (and Quick) History of Artificial Intelligence in Financial Services

Over the past week or so, the topic of artificial intelligence has made national news, most recently appearing in an October 9th segment on CBS’s 60 Minutes. Featured prominently on this segment was “Watson”, IBM’s learning super computer along with a handful of other learning computers. Closer to home in the financial services sector, two weeks ago IBM announced an acquisition of a bank consulting firm; it was a mildly curious acquisition that may eventually feature Watson in the role of a bank’s compliance officer. We’ll get back to Watson’s banking future in a moment.

Taking a few steps back, one of the first forms of artificial intelligence was the FICO score. Developed by Fair, Isaac & Company in 1989, the acronym “FICO” is uttered constantly by bankers all across

the world. This score is a universal metric of a borrower’s creditworthiness and it is hard to envision the extension of credit without using a FICO score. However, the initial skepticism of the FICO score was strong and adoption of the methodology was slow.

Fast forwarding to today (and leaving a lot of technological advances by the wayside), we come to “robo-advisors”. The term robo-advisor implies that your wealth can be managed by a machine, using algorithms. These algorithms are supposed to know when to “hold ‘em and when to fold ‘em”.

The use of this technology is gaining rapidly, and growth has been impressive. In a little over seven years, Betterment, Wealthfront and Acorns collectively have nearly \$10 billion in discretionary assets under management. Other firms, such as Charles Schwab and Vanguard robo-advisor services have even more assets under management. Bank of America recently announced their intention to build their own robo-advisor platform.

While I can’t prove it empirically relative to the FICO score, adoption of robo-advisor technology feels slower. Which would make some sense as a bank (a smaller population) was the end user of a FICO score whereas a person or company is the end user of the robo-advisor. There are a lot of open issues with this approach to wealth management, but given continued advances in technology, the robo-advisor platform appears to be here to stay*.

*For more on robo-advisors please visit our July 2016 podcast at <http://kafafiangroup.com/podcasts/episode-7-July-27-2016/>

The Asset Management Sector

Technology changes and use of advanced algorithms are spurring a range of “new” entrants into the world of asset management. These firms were born at the end of the Great Recession and so far, have enjoyed a favorable stock and bond market environment during their growth years. The question: will the users of these services revert back to human advisors in the next market downturn?



Source: TKG analysis of company reports and filings as of July and August 2016; excludes Charles Schwab and Vanguard's "robo-advisor" platforms

Is it Elementary Dear Watson?

The topic of futurism and artificial intelligence is of particular interest to me, and frequently we talk with community banks about how they can use technology to level the playing field against larger institutions and other entrants into the banking market. By using readily available technology, community banks are theoretically able to more easily compete with larger banks. However, the oligopoly that exists among Jack Henry, FiServ and FIS in the core processing arena results

in nearly the same technology platform being in place at nearly every community bank. The result: technology has driven nearly all community banks to look and feel the same. Lost is the personal touch, even though we know more about our customers than ever before.

Let's get back to Watson. Watson is capable of learning (from both other machines and humans) and it would appear based on various statements made by IBM that Watson's first task post-acquisition of Promontory Financial Group is to learn how to evaluate a bank's performance in, and understanding of, compliance and regulation. Does this mean that Watson will better serve bank clients while better protecting consumers? Perhaps both stakeholder groups will be served but it appears clear that how a bank is examined for compliance will certainly change ... from an occasional "on site" visit by examiners to real-time, remote examinations (with a human review of the results generated through artificial intelligence). Gone will be the days of interpretation issues associated with regulation as Watson (or someday, Watson, Jr.) will be THE authoritative source of regulations and guidance on application of regulations and compliance.

Will Watson stop at monitoring compliance risk? It is certainly not far-fetched to imagine that artificial intelligence could become an enterprise risk manager ... providing comprehensive risk management oversight across all risk factor dimensions within a financial services organization. For example, my guess is Watson would have picked up on the debacle at Wells Fargo quickly. And artificial intelligence would have done so in a fashion hard to ignore; management would have had a flashing yellow signal on account opening data years ago, with Truth-in-Lending forms flagged for fraudulent signatures. External auditors would have been notified, regulators too. Do you know who else would have been notified? The customers who were impacted.

Going way out into the future, Watson may eventually partner with other technology platforms, such as robo-advisors or core processing systems. Eventually, monitoring of risk may turn to measurement of risk, with a focus on earnings and capital, and ultimately the safety and soundness of a bank. Information sharing across platforms will grow exponentially but with data even better assimilated. Watson may eventually be able to monitor all banks, all at the same time, in real time, not just one bank in isolation, on a delayed basis. It is unclear how artificial intelligence would provide remediation of risk but our belief is that based on today's technologies, any large scale response would further elevate systemic risk in the banking sector.

Artificial intelligence will also further enable bankers to evaluate and identify customer behavior patterns to develop and maintain a complete picture of a customer's financial life. Community bankers who embrace varying levels of artificial intelligence sooner rather than later will be able to better connect with consumers and offer proactive, anticipatory service to customers. The difference between community banks that succeed and those that simply survive will be in part based on how advances in technology are used to elevate – not replace - the personal touch element of customer service. Otherwise, the days of personal touch in banking may be relegated to machines.

TKG, as part of our consulting and advisory engagements, frequently evaluates our industry, its trends, successes, and challenges. We are pleased to share our thoughts with you, our valued clients and friends, in the form of this periodic newsletter. If you would like to discuss anything further, or learn more about our performance measurement, strategic planning, regulatory assistance, process improvement or financial advisory services, please call us at (973) 299-0300 or visit us at www.kafafiangroup.com.

**THE
KAFAFIAN
GROUP**