

TRENDS IN INVESTMENT BANKING TECHNOLOGY

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Introduction

Technological innovation has permeated every industry, and investment banking firms are no exception. As a result, these financial institutions have hired world-class technology teams focused on building and implementing new technological solutions to remake their processes and business models.

In finance, technology has become ubiquitous, with capital market firms historically being early adopters of digital technologies. And rightfully so, for a firm to thrive in such a competitive industry, embracing technology is vital.

Due to the relatively low cost of developing technology platforms and advancements in computing power, various new disruptive technologies can be leveraged by investment banks to increase efficiencies and profitability.

In this article, we will review five of the biggest trends in investment banking technology. All firms ranging from bulge bracket banks to smaller middle-market local boutiques should actively implement or consider implementing these technologies to remain competitive and provide clients with the best service.

1. Artificial Intelligence

Artificial intelligence (AI) is the next big breakthrough in the digital era. In just a few years, AI has evolved from a science fiction concept to a reality we use in our everyday lives.

Each day, AI is used to replace processes and systems that were once performed manually by humans. As a result, AI, automation, and machine learning (ML) have been adopted in some way by the corporate finance, equity research, and sales & trading departments of most investment banking groups. These firms leverage AI for deal origination, due diligence, company research, and even to [manage their networks](#).

In a global financial technology [survey](#) conducted by PwC, 50% of senior bankers stated that they have already made significant investments in AI platforms. The majority of their efforts are focused on productivity and cost reductions. Commercial banking divisions also use AI to service customer queries via chatbots and identify and respond to fraud.

With fierce competition from other banks, and a focus on maximizing returns, large investment banks will replace some back-office overseas jobs with AI; however, large technology groups will need to be hired to support these ecosystems.

Will AI *replace* investment bankers? Since human interactions and relationships are crucial in investment banking and bankers make high-level decisions and judgment calls that still require a human brain, that's unlikely in the short term.

Diving deeper into AI, two areas are particularly relevant to investment banks:

Decision Support

One use of [machine learning](#) is helping executives and banking teams quickly analyze large streams of data to make better decisions. Using statistics, computer modeling, and historical data, these systems enable busy teams to focus their energy on the areas with the highest yield or potential for risk. For financial services firms, predictive analytics helps assess risk and forecasting market movements. For instance, a predictive engine could look at a potential deal, analyze multiple variables, and create a risk score that helps you decide if it's worth an investment.

Natural Language Processing

[Natural language processing](#) (NLP) is a branch of AI that seeks to help machines understand human language. NLP engines can examine emails, documents, and even spoken words to spot issues, uncover fraud, identify unusual transactions, or draw conclusions, which translates to saving thousands of person-hours per year.

2. Unstructured Data Collection

Most forms of artificial intelligence rely on large quantities of data that the relevant models can use to refine their predictions. Luckily, we've seen an explosion in the volume and kind of data points collected alongside the improvements in analytical techniques.

Processing, analyzing, and taking action based on first-party data insights is vital. For example, once your firm has a few mergers and acquisitions directors, hundreds or thousands of potential deals will come across your plate. Managing those leads is problematic, especially if they come from a vast matrix of relationships. If you don't use data to analyze each opportunity quickly, you could miss out on lucrative deals.

Furthermore, many bankers take advantage of secondary and tertiary data sources: data collected (ethically) through their partners, customers, vendors, and public market information. These data insights are used to identify new deal opportunities, grow networks, and ultimately increase efficiency and profits.

A recent report by [Deloitte](#) titled "Bank of 2030: The Future of Investment Banking" explains how banks will need to optimize the use of financial technology, data, and analytics to generate differentiated insight and add value in a post-pandemic world. The report states that having a rich dataset will allow banks to model their clients' behavior and use AI, ML, and NLP to predict their risk appetite.

Access to data and data analytics has been the "great equalizer" by allowing fintech startups and other smaller technology companies to compete with larger and well-established financial institutions. Banks like Goldman Sachs, Morgan Stanley, Credit Suisse, and regulators such as Finra have embraced data collection and analysis to find patterns and create value.

Integrating vast amounts of data into your bank's systems can be a daunting task. In some cases, these integrations are simple API hook-ins to copy data from one source to another (i.e., from Salesforce to AWS). In other cases, data requires custom infrastructure and maintenance. Thankfully, there are multiple cloud SaaS solutions with various pricing tiers for smaller players that can not afford extensive data and tech teams.

3. Virtual Data Rooms

M&A transactions, restructuring, and IPOs require diligent document and data management systems that allow deal participants to manage and share confidential information. However, with cyber-attacks on the rise, firms need to take active steps in protecting personal data and sensitive corporate data.

"A virtual data room, or a 'VDR,' is an online database in which companies can store and share confidential information, usually used during a financial transaction," says Securedocs, a VDR platform. "VDRs are also used as ongoing document repositories, allowing businesses to organize critical business documents for easy, secure access."

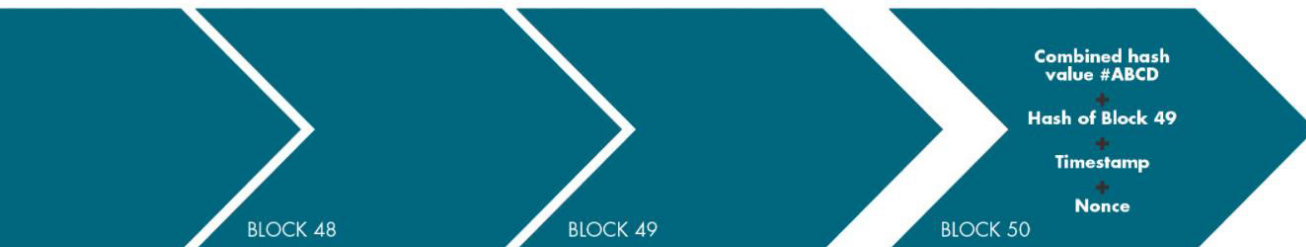
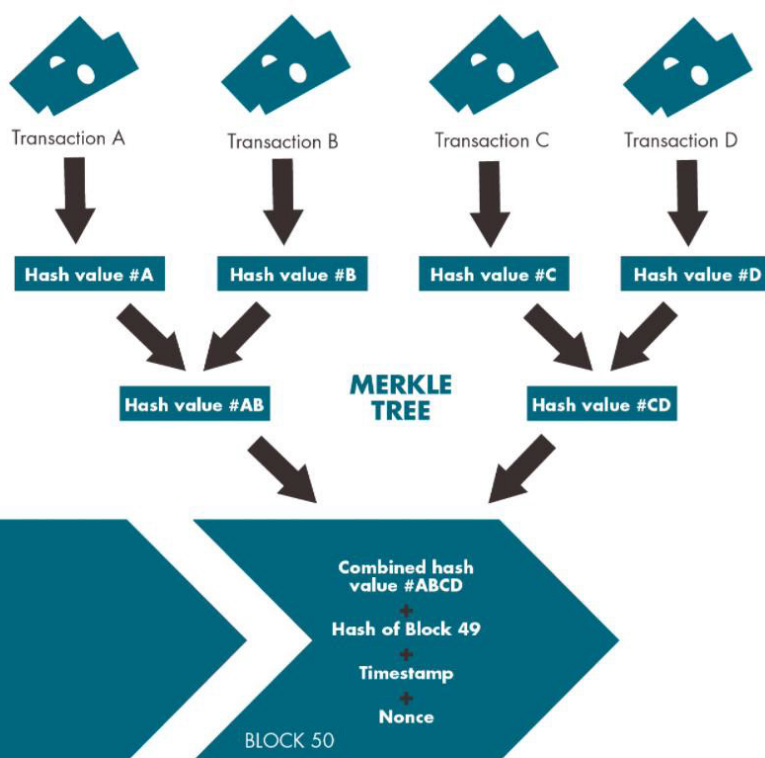
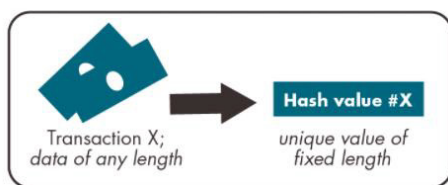
Banks and companies engaged in M&A transactions use data rooms to store and share sensitive dealmaking information securely. As a result, everything is kept secure, with access granted only to the appropriate parties, thus fostering higher productivity, enhanced security, and better regulatory compliance.

Virtual data rooms are necessary for all firms, especially for those that have multiple deals in their pipeline at any given time. When combined with the right [relationship management system](#), VDRs are powerful tools to keep bankers organized without compromising security.

4. Blockchain

Made famous by cryptocurrencies, blockchain is a decentralized database where data is stored in blocks chained together. While the ‘promise’ of blockchain is still mostly that – and has not resulted in widespread rollouts in most investment banking firms and processes, there are a number of theoretical benefits that could be quite meaningful when realized.

HOW THE BLOCKCHAIN WORKS



Source: [Wikimedia Commons](#)

Reproduction of an original figure in “The Great Chain of Being Sure About Things” by the Economist



Blockchain has multiple use cases beyond cryptocurrencies; for example, investment banks have piloted blockchain in compliance, KYC and AML. Some analysts have suggested blockchain has the power to drive efficiency gains and reduce risks. According to a [report](#) by Accenture, implementing blockchain could cut costs and result in savings of more than 30% across the middle and back office.

Blockchain works by storing information differently than a traditional centralized database. As new data comes in, it’s entered into a new block. The blocks are chained together chronologically. A block must agree with the previous and next block, which is verified by a distributed network of systems known as “miners.” This way, no single person has control over the database. Instead, it is *distributed* across all users.

As you can imagine, blockchain is ideal as a ledger for financial transactions because there is an immutable record of all previous transactions. Anyone can view it, but no one can edit it. Investment bankers like blockchain for two main reasons:

- It can be used to replace intermediaries in fund transfers. Those players have their costs, which can be eliminated by blockchain
- The premise of blockchain is highly secure. Malicious parties can't change the ledger without changing every blockchain block, which is virtually impossible.

5. Relationship Management / Relationship Intelligence

In this highly competitive environment, investment banks should focus on getting the most out of their business development efforts. As relationship-based businesses, bankers need to leverage personal connections while still relying on technology to maximize their deal funnel. The right technology allows bankers to integrate offline and online efforts to optimize business development, stay engaged with crucial deal sources, and streamline the transaction process.

Enter [Relationship Management platforms](#); these systems are designed specifically for deal-driven teams to streamline their business development workflow and make their networks work for them. For example, by identifying the right capital providers for each deal and using AI to allow teams to mine the firm's network for warm introductions, BD teams have the data they need to be more effective at bringing in new business. Relationship Management platforms also add value to the rest of the deal team by automating and tracking tasks and eliminating data entry, allowing bankers to focus on productive tasks.

Going Forward

Technology is quickly changing the pace at which investment banks conduct business. For example, industry-specific software has optimized business operations and improved the decision-making process. As a result, all investment banking firms need a long-term plan to implement the right tools, resources, and processes to remain competitive.

Similar to other private financing firms like [private equity](#), investment banking remains a relationship-focused business. Regardless of how much automation or how many technologies are used, nothing replaces the power of personal relationships—for example, having a managing director fly from New York to San Francisco to meet with a client trumps a virtual meeting. That is why making your network work hard for you is crucial.

As a banker, you rely on your network to source deals and identify the right capital providers. But, unfortunately, depending on outdated spreadsheets and sales CRMs is slowing down your firm's productivity and competitiveness.

To prevent this from happening and punch above your firm's weight, you should consider implementing 4 Degrees. Our team will be happy to give you a [personalized demo](#).