Solving the AI Productivity Puzzle in Banking
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Solving the AI Productivity Puzzle in Banking

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There is a consensus in financial services that artificial intelligence (AI) is a potential game changer. Banks are custodians of vast stores of data. It makes sense, therefore, that banks should put AI at the center of the business model to enable faster, smarter decisions and a more personalized customer service.

Given banking’s similarity to tech (banks are fond of saying that they are tech companies), it is a source of frustration in the industry that AI has yet to live up to expectations. In fact, its impact remains marginal rather than transformative, and few banks have translated its potential into material impact on the bottom line.

To most industries and players, AI is an early-stage technology, so teething problems are natural. Even so, banks could be making faster progress. One reason they haven’t is that they tend to take a scattergun approach to experimentation, picking use cases that seem appealing but lead neither to significantly lower costs nor higher revenues. In addition, many banks fail to see the bigger picture in terms of related requirements around governance and operations. The result is an underpowered AI strategy that fails to deliver.

Banks require a more ambitious agenda for AI that amounts to an overarching change. For the technology to work effectively, they need to put it front and center, supported by a data-centric operating model – client centricty requires data centricty. The task is complex, but the prize is significant. We believe a medium-sized business and retail bank with $1 billion of annual profits could realistically see $150-200 million added to the bottom line in one to two years.

Establishing Financial Impact

With the right approach, AI can help banks achieve a significant performance upturn in the short run. However, an important enabler of effective implementation is learning to walk before trying to run. With that in mind, the first step should be to pick a few use cases that can establish financial impact early in the process. If banks get this right, the necessary elements (from cultural change, to data standardization and IT renewal) are driven much more focused, as then the P&L impact is the key driver. They can then start to act more like the large tech companies because they are properly equipped to experiment with AI applications at scale.

Some banks have adopted this iterative approach, ensuring benefits are material, measurable and monitored through the transition process. Of course, individual situations will vary, depending on the market and the business model. Three key elements are at the root of most successful reforms:

- **Focus:** A successful transformation usually starts with a handful of flagship applications that can have a direct impact on revenues, profit and/or customer satisfaction.

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• **Drive:** For each use case, executives must orchestrate and sometimes even drive the implementation across the business.

• **Transformation:** In parallel, use cases should pave the way for the next generation.

**Focusing on the largest use cases.** A common mistake in the banking industry is to focus early AI initiatives on generic analytical capabilities, such as data standardization programs. This may be missing the point, for example, if there is no sense of whether that data is useful in an AI context. A better approach is to pick a few flagship applications that promise a direct and significant impact on revenues, profit and/or customer satisfaction. This makes financial sense and pre-empts the natural tendency to start with low-risk applications that have little chance of creating significant value.

In practice, the most appealing areas in financial services are: cross-sell, smart retention, pricing, prospecting, and credit monitoring. These are brownfield activities that are analytics-friendly and can benefit from AI’s ability to pick out the distinguishing features of individual customers—creating “segments of one”. Two areas particularly susceptible to quick wins are cross-selling and annual credit reviews for Small and Medium-sized Enterprises (SMEs). In both, AI implementations are still rare enough to generate a competitive advantage, however, this will most likely change in the next two to three years.

Finally, the focus on a few use cases is important because it recognizes that change is difficult. New analytical capabilities require significant orchestration across the bank, from cross-cutting requirements (e.g., data and IT architecture) to talent and front office business processes and performance metrics. Most importantly, however, the teams, that own a process into which the analytics is feeding, need to be open to change – no buy-in, no success.

In one example of a successful transformation, a European bank piloted a cross-sell engine involving 200 relationship managers (RMs) and nine product classes. The analytics engine was designed to help RMs answer two simple questions:

1. “What should I say if I get called by a client?”
2. “Which clients should I meet next?”
The bank took a pragmatic approach, starting only with data that was readily available and designing the models solely to answer these questions. The result was a simple web-based tool that supports RMs in their real-time communications. Implementation was encouraged through incentives and performance monitoring.

The analytical engine identified a first batch of 12,000 leads. Each RM took responsibility for 60 leads. Given the quality of the leads, the RMs abandoned their long-standing cross-selling framework. Based on the pilot, the forecasted revenue uplift on the bank’s portfolio of SME clients is estimated to be around 10%.

**Driving implementation.** Across industries, some 70% of AI implementation efforts are focused on business process design, enablement and change management. Only 30% relates to modeling and data processing. One reason is that AI is a general-purpose technology, meaning it has a range of applications across the business. This brings complexity and dependencies as projects are rolled out. In addition, the transformation to a data-centric organization requires new protocols across almost every aspect of operations. The change process also requires a range of skills to make it work. If the AI implementation efforts are only driven by the head of analytics, the focus would only be on 30% of the task. For these reasons, senior executive leadership (probably the CEO or the head of a business line) is essential.

In one example of a successful implementation, a bank used AI to reduce churn among its retail customers and to create a more personalized service. It started by focusing on a million customers, who collectively accounted for 70 billion data points. The project timeline was six months. A first set of AI models identified retention and cross-sell opportunities and a second set suggested the most effective channels for connecting with individuals. The program required significant operational change (from call center scripts to SMS engine permissions), and the CEO was engaged, which ensured that all of the cross-functional permissions and mandates could be put into place. The pilot was a success, leading to a 14% reduction in churn. It was later scaled up to the bank’s 8 million customers and a more comprehensive transformation program over 24 months.

**Transforming the business and laying the groundwork with early use cases.** To get a major application into production, banks require root and branch reforms of operating models, business processes, and IT architecture. The good news is, that once these are in place, they can serve as foundations for future AI programs. This
is flexibility by design, so that value is accumulated through the process as well as from the end result.

In one example, a North American bank kicked off an AI transformation by narrowly focusing on SME underwriting (up to $5 million) and annual credit monitoring. Its aim was to build out its AI capabilities as it addressed these particular pain points. The business took the lead and remained hands-on throughout, supported by the risk function. From a data perspective, the key aim was to generate a highly sensitive liquidity forecast for each customer. Transaction data was complemented with 10 years of data from a variety of sources collected through 17 Application Programming Interfaces (APIs). The bank assembled a 30-man strong IT team to build the APIs using agile techniques, and the team and APIs remained in place after the project. The bank also hired four additional data scientists on permanent contracts to drive the specific model development and validation.

The project enabled automation of 70% of the credit processes (for the highest-grade clients) and a $6 million decline in underwriting costs. At the same time, the bank transformed the customer experience. The “time-to-yes” was cut from two weeks to half a day. The bank was also able to substantially automate credit monitoring. The result was a more granular insight, enabling analysts to dedicate more time to high-risk customers, which lead to an annual saving of about $30 million.

The experience of banks that have embarked on AI transformations is that “letting a thousand flowers bloom”, as often seen at highly developed tech companies, is not the right way forward. Rather, banks should adopt a strategic and iterative approach in which quick wins establish progress and enable necessary changes to culture, operations, and infrastructure. Use cases that add value now, will lose their competitive edge in two to three years. Therefore, the task for banks is to act quickly, establish success and then move on to the next promising experiment.
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