Banking Whitepaper

The Pursuit of Agile Pricing Operations

A Blueprint for Lenders Looking to Efficiently Implement a Pricing Analytics Solution



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Executive Summary

Lending markets have been changing so quickly recently that now, attempting to play by the same rules is no longer an option, even if those approaches worked well in the past.

Across the entire consumer lending portfolio, including auto finance, unsecured lending, mortgages, and credit cards, you need more agile, innovative, and technology-powered pricing strategies. Attempting to manually revise pricing tables or use spreadsheets to try to find the right price just won't cut it anymore.

Today's lending teams need to move away from these past tactics and improve the overall agility of their pricing operations. While many organizations may know this is the right step, a high percentage of them don't know how to get started. The result: "analysis paralysis" that impedes any real progress and gives the competition a critical head start.

This guide provides an agile pricing operations blueprint to help you identify actionable opportunities for quick wins while keeping long-term strategies in mind.



Introduction: The Need for a Pricing Paradigm Shift

It's been a challenging few years in the lending market. Interest rates have gone up – often with surprising frequency – as central banks attempt to reduce global inflation. For lenders, this obviously changes consumers' funding costs, but higher interest rates have also increased their cost of risk and even changed the way lenders must respond to competitors who may be changing their pricing quickly and aggressively.

A shift has happened in the market that is forcing lenders to rethink their pricing strategies to achieve their overall organizational objectives. Yet, sometimes even those objectives have changed as well.

When it comes to pricing, lenders must be able to identify the right prices for specific customer segments and deploy these offers into the market much faster than ever before.

To put it another way, facing so much change, what can lenders do to:

- → Hit their profitability, spread, market share, and volume goals …
- → Without pricing too low to attract unwanted risk …
- → Or too high to further reduce their potential addressable market?

The answer lies in both technological and strategic shifts. Technology plays a vital role: powerful pricing solutions featuring advanced data analytics and artificial intelligence can help lenders make data-driven decisions faster. But agile pricing operation also means breaking the overall project into smaller tasks and starting with small changes that bring powerful results. This whitepaper is a guide on how to get started.

The Importance of an Agile Approach to Pricing Analytics

How can today's lending teams make pricing analytics a reality in their organization?

The answer: using an agile pricing philosophy. It's an important strategy and mindset since so many companies believe they need to immediately jump to the most advanced and sophisticated approach to pricing analytics.

The fact is that this end scenario actually takes a very long time to achieve, is an extremely complex process, and can be costly, both in terms of the required resources as well as the skills and effort needed to get to that level of sophistication.



The Right Mindset for Agile Pricing Success

1. Start with quick wins that deliver the biggest value today.
2. Get buy-in from all internal stakeholders to facilitate a seamless transition.
3. Plan to migrate to a truly sophisticated pricing analytics hub, including the use of predictive models.

Start with quick wins that deliver the biggest value today.

Minimum Requirements to Get Started

Now that you understand the need for an agile approach to pricing, what are the minimum requirements you need to get started with analytics-based and elasticity-based optimization?

We recommend that any company start with the following four components:

- **Data:** As you set up your data, you should have one row per customer, and ideally one row per offer for each customer. You want to begin to plan to do all you can to increase the likelihood that customers will accept your offer.
- **A conversion/demand model:** This will help you predict what happens to your customer base when you change the prices. The most important thing is to model, in a statistically significant way, that as prices increase, demand decreases.
- **Profitability model:** You need to determine how profitable your given strategy is, but in setting this up, you can choose to use many different variables, including 12-month margin income, the net present value of future cash flows, return on capital, or internal rate of return. Ideally, you should apply these calculations consistently and they should offer a solid approximation for the profitability of a particular portfolio.
- **Your current price sheets:** This is important so you can compare future optimization strategies to what you're doing today. This gives you important insights into how any changes you make can influence more positive results and outcomes.

Remember that the whole principle behind agile pricing is to start simple and continue to add new layers to increase the overall sophistication. These four steps can serve as the entry point into a new advanced pricing analytics strategy that can be improved over time.

How to Implement Analytics-Driven Pricing?

Data

- Design data architecture and ETL to support predictive models
- Focus on the right models for your case
- Streamline real-time monitoring

People

- Team with partners and experts
- Set up teams of pricing experts and pricing managers working with analytics team

Operations

- Automate repetitive price deployment processes
- Price deployment tools directly controlled by pricing managers
- Integrate pricing analytics and LOS

Organization

- Socialize methodology internally
- Identify benefits for different stakeholders: risk, pricing, analytics, IT



A Blueprint for Success

Five best practices any lending team can follow to implement a more agile pricing methodology.

01 Walk Before You Run: Identify Quick wins

As you proceed, it's important to start with something that is good enough for now. You can reap the value of immediate benefits while planning an iterative approach to keep advancing and getting more sophisticated with your pricing operations.



Consider these two use cases:

Company A has a very sophisticated approach to pricing, including over a dozen models using machine learning and data-driven insights. For example, they model all aspects of the loan process, including outcomes such as whether or not the customer submits the application to if they send the money back in the two-week return window. Not only has this company done this for every stage of the loan process, but they also model more than half a dozen different segments within their business.

Company B has very little sophistication with its pricing models and calculate demand and elasticity using pivot tables in Excel. The company used a basic price sheet that listed variables such as loan, term, credit rating, and other variables to manage its price optimization process. However, this company was committed to an agile methodology for its pricing operations.

Company A seems like they should be seeing more in the amount of conversion and uplift and other metrics, but it actually turned out that the opposite is true. Their process was so complex that they had a hard time getting data in time to refresh those models and use them to their full benefit.

Instead, **Company B** made early progress using elasticity/demand-based processes and continued to build more sophisticated models, price sheets, and other price optimization methods. This allowed them to realize significant benefits almost immediately while paving the way for even more success in the future.

How Earnix Can Help

Earnix enables creation of pricing strategies which offer individualized and relevant offers to customers while at the same time enabling the lender to achieve maximum ROI while satisfying critical business and portfolio constraints. Using optimization techniques, the Earnix solution can enable the lender to define its portfolio goal (such as maximizing revenue and profit) and the business constraints it needs to satisfy (max. risk level, budget) towards creating a pricing strategy. This enables banks to both personalize the loan offer as well as generate optimal ROI from their portfolio of loans.



02 Embrace the Power of Automation

“Complexity is often the enemy of execution.” This old saying is especially true if you’re still using manual efforts, outdated legacy technology, or inefficient siloed systems for your overall pricing approach.

The first step in moving to more agile pricing operations should be to apply automation to as many aspects of the pricing process as possible. This includes everything from automating all parts of any process required to update price changes to how new prices are deployed into various production systems. You should even automate the validation process to report back and confirm that the prices are what you expected them to be.

All of this will go a long way to minimizing errors and eliminating the need to hand off parts of the process to other internal groups – both of which waste far too much time and effort. You’ll also reduce your dependence on IT resources since newly automated systems won’t need nearly as much management, administration, and troubleshooting.

As a result, you’ll dramatically accelerate your time to market – in many cases reduce model update timeframes from months to mere days – and put more compelling offers in front of borrowers faster than you ever thought possible.

How Earnix Can Help

Earnix Price-It includes automation capabilities that allow the usage of built-in Python-based libraries within a separate console (allowing users to write and execute a series of tasks), thereby improving agility and simplifying the pricing process.

For example, you can automate recurring and scheduled activities in the data management, modeling, pricing, and pricing execution stages using Python-based scripts. You can write and reuse functions and libraries with scripts that can be scheduled to run at specific dates and times.

With a library of included Python methods delivered out-of-the-box, Earnix Price-It makes it easy to automate tasks such as updating and editing data, refitting models, or creating pricing strategies. These processes can then be saved and reused, allowing for continual refinement and repurposing of pricing strategies.

Earnix Price-It enables the development and seamless deployment of optimal prices to production environments. All aspects of the deployment process are code-free, enabling business-led deployments and ownership – all to save time and make vital operations much more efficient.

Real-World Success

One Earnix customer adopted a fully automated approach to successfully eliminate a high number of manual steps and workarounds that added too much complexity to their pricing process. This organization is now able to make entirely new price updates once a week and often, even faster than that.

By using automation to simplify the entire pricing process, this organization's pricing team is in a much better position to stay on top of the changes they want to make and stay a step ahead of their competitors.

03 Take Advantage of Predictive Models

After successfully improving the operations side of your pricing process (with the steps already described), you should begin to consider pursuing advanced capabilities such as predictive analytics.

To start the process, you should first focus on data collection and getting as much data as possible. This includes logical areas related to loans, the number of loans originated, borrowers who took your loan, consumers who did not accept the offer, and more. You should also attempt to incorporate data related to your competitors and what prices they're offering (or other terms and details).

All of this is helpful in developing a price model that helps you understand how customers may react to various changes, so you can best predict their willingness to accept your offer – at the ideal price for your internal goals.

This will allow you to distinguish between different segments in your population and understand how these segments will respond to your initial price or pricing updates as you go. Modern pricing solutions can also get to the point where they go beyond simulation-based analysis – which is itself a good thing – to the point where they can start making recommendations.

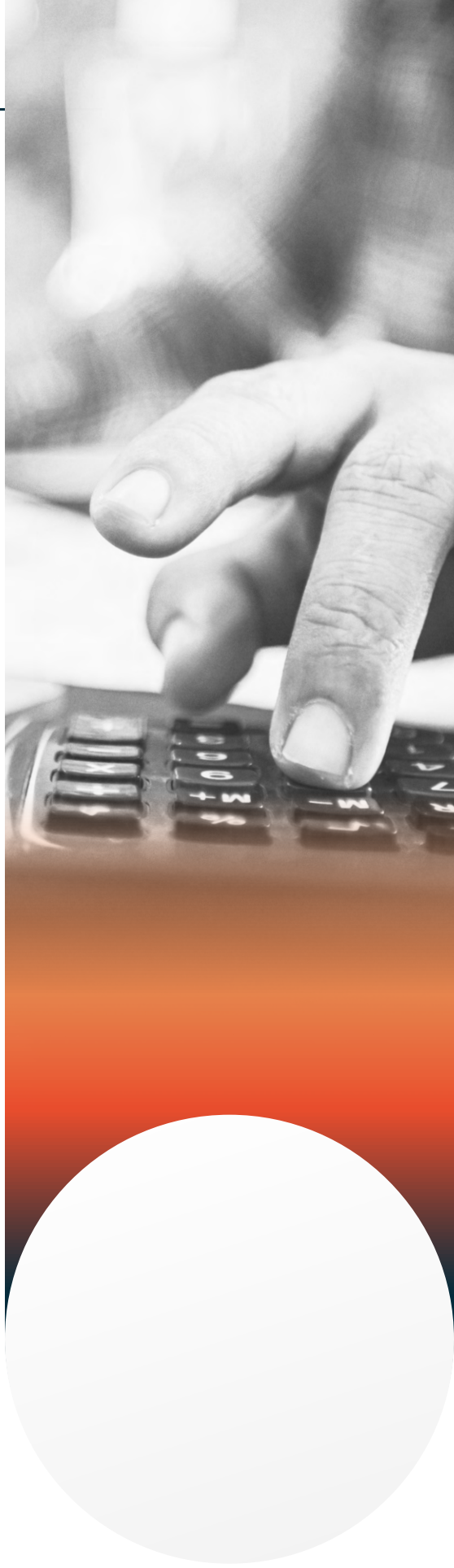
It is important to follow the old adage here, "don't let perfect be the enemy of good," and remember that having a solid, basic model (to start) is much better than having nothing at all. Don't be intimidated about your first use of predictive analytics. Instead, start simple and continue to build new layers of complexity as you go. Many Earnix customers start with a basic model to predict loan demand and can go live in a week or two and then add as they go.

How Earnix Can Help

The Earnix Price-It solution unlocks powerful analytical capabilities and provides pricing managers and decision-makers with an easy-to-use pricing management workflow that leverages intel from underlying data and models.

Pricing and business leaders can perform simulations, create new strategies, and partner them with easy-to-consume visual dashboards and reports. This holistic visibility with the ability to edit and adjust ensures banks and auto lenders can make informed decisions and continuously improve their competitive advantage.

Focusing on analytics will allow you to generate efficient strategies where you're making efficient trade-offs between your goals (e.g., profitability) and demand. You can create a frontier of possibilities when it comes to what market share you'd like to have, how much you're looking to lend, and what type of profitability you're looking at.



04 Demonstrate Early Success to Get Buy-in and Support from Major Stakeholders

On one hand, the idea of an automated, agile pricing solution is very appealing to virtually everyone connected to it, which includes a wide group of stakeholders such as executives, IT, data science teams, finance teams, and pricing committee members.

Yet the effort to migrate to agile pricing operations – which clearly consists of a technology implementation – may seem to be too big or too intimidating. As a result, many companies may delay their decision, wasting precious time on a project that can have game-changing results.

This means you need to show real results as quickly as possible in order to demonstrate the total value, fast implementation timeframes, and ROI potential to executives and key stakeholders. This dovetails with the idea of starting small and not looking to implement an overly complex pricing system right away.

One of the best ways to do this is to create engaging, informative dashboards that show ongoing key performance indicators (KPIs) and other metrics. That way, executive sponsors can see real results related to your specific pricing strategies and goals, such as loan volume, conversion rates, or profitability.

Quick Wins: Here are some success stories from the Earnix customers around the world

The Earnix solution enables lenders to achieve very profitable results. This has been proven over 20 years at multiple financial institutions across six continents. As an example, one of the Top 5 US Retail Bank experienced the following benefits by using the Earnix solution.

Increased Profits

The bank's profit metrics included a financial benefit exceeding $10 million and an ROI greater than 10x on their Earnix investment. The improvement in the bank's pricing sophistication led to a further 2x margin increase.

Improved Visibility

The Bank was able to easily view and monitor past pricing projects and performance, run "what-if" scenarios, develop pricing strategies and make timely pricing changes based on changing market conditions.

Compliance

By using a single, automated solution from Earnix for data management, analytical modeling, simulation, optimization and reporting, the bank met its compliance requirements relatively easily and faster than before.

Agility

The banks response to pricing decisions can now be fed into downstream demand models, allowing future pricing calculations to better reflect market conditions and enable continuous margin and volume improvements.



How Earnix Can Help

Instead of implementations measured in months (or longer), many Earnix customers can get up and running in just a few weeks for fast time to value and a real return on their investment.

For example, our Pricing Accelerator unlocks the powerful analytical capabilities of the Earnix platform and helps pricing managers and decision-makers take advantage of easy-to-use pricing management workflows that use intelligence from underlying data and models.

Our solution includes customizable visual dashboards and table reporting capabilities to help internal team members monitor the performance of their pricing strategies in a single view. Executives and other stakeholders can use custom dashboards to monitor ongoing progress and early results against established metrics and goals, going a long way to maintaining ongoing sponsorship and support.

05 Position Yourself for Success with the Right Technology

Your overall process and technology choices will dictate your pricing outcomes and could lead to pricing strategies that are overly complex, time-consuming, and inefficient. To pave the way for future success, you need to make the best decisions possible when selecting the pricing solution that is right for you.

For example, the ideal pricing solution should allow you to perform detailed simulations, make data-driven decisions, and quickly perform pricing model updates. Additionally, it should also have the ability to integrate with your current loan origination system and other applications that will use the new or updated prices.

Also, your pricing system should have a wide range of powerful capabilities, such as complete audit trails that can provide a full look at how the pricing decisions were made. Consider the case where you may have many different pricing campaigns at the same time. This quickly becomes a highly dynamic, highly complicated process with many different outcomes (prices) changing all the time. You need an effective way to reconstruct what you did and trace your steps to understand where a particular price came from.



How Earnix Can Help

Earnix Price-It is a comprehensive, enterprise-level solution for price modeling, simulation, optimization, and deployment. It is a true SaaS solution that is more intelligent, scalable, and agile than outdated technology and legacy infrastructure systems that rely on a patchwork of disconnected applications.

Earnix Price-It is a real advantage over most other pricing methods that attempt to cobble together too many other software tools. These approaches inevitably lead to too many manual efforts, handoffs, and other workarounds between siloed solutions and internal teams. Not only do these challenges make true collaboration difficult, but they significantly increase the project implementation time and drive the risk of errors and compliance issues.

In contrast, Earnix Price-It allows all analytical tasks – everything from data ingestion through the development of pricing strategy to deployment – to occur within the same software solution. Our Pricing Accelerator module also helps bridge the gap between sophisticated, AI-powered pricing analytics and a user-friendly experience expected by pricing committees across consumer lending institutions. It transforms the way pricing strategies are created and deployed, allowing business managers to analyze, simulate, approve, and deploy prices on a single platform via role-based workflows in real-time. Pricing Accelerator unlocks powerful analytical capabilities without the need for deep analytical knowledge.

The Earnix Price-It platform delivers proven pricing capabilities, including:

- → Flexible ingestion of data
- → "What-if" scenario simulations
- → Price optimization
- → Loan personalization
- → Real-time pricing deployment
- → Alternative deal structures
- → Visual dashboards and reports

Imagine what your life will be like with Earnix

Visual Dashboards and Reporting

Pricing managers often struggle to track the performance of their pricing strategies, making it hard to determine which strategies are working and which are not. The visual dashboards and table reporting capabilities of Business Insights help the pricing manager monitor the performance of their executed pricing strategies in a single view.

Dynamic Scenario Simulation

Without the ability to run what-if analysis of pricing strategies, pricing managers may be unable to determine the best course of action to take. Dynamic simulation capabilities, based on predictive analytics, allow the pricing manager to run simulations on different pricing scenarios, providing a clear understanding of how the strategies are likely to perform - all without the need to extract data from your legacy tools.

Direct Access to Data and Analytics

When data and models are not easily accessible, it can be challenging for pricing managers to make informed decisions. Business Insights is directly connected to Earnix Price-it data and analytics, enabling pricing managers to use advanced analytics in exploring various pricing strategies and their potential impact on their business without the need for extensive analytical knowledge or constantly asking for help from IT and data science teams.

One of Earnix's customers – a leading US financial institution – achieved a 65% reduction in unprofitable loans while uplifting profit by 15 bps.

Pre-Built Templates and Reports

Creating new pricing strategies from scratch can be a time-consuming process, especially when dealing with multiple data sets. The reusable templates and out-of-the-box user flows for creating different pricing scenarios, performing data analysis, and building summary reports allow the pricing manager to easily create new pricing strategies, saving time and reducing errors.

Governance, Audit and Compliance

Regulatory compliance is always part of any AI-powered tool purchase. Meet increasing regulatory scrutiny with a built-in audit trail for every pricing rule and decision, generated automatically. Store every quote for compliance and analysis. Earnix's Price-It platform is built using the open analytics approach, putting the power in the hands of the lender, not the vendor.



The Earnix Advantage: Domain Expertise

When starting a big AI project, it is critical to engage with a vendor that has done numerous deployments just like yours to anticipate the bottlenecks and foresee roadblocks and challenges.

Throughout the years and with multiple financial institution customers, Earnix developed a deep understanding of what a pricing team is and how it operates. Our products have years of iterations from customer feedback and built-in governance from previous engagements. So, we designed our platform with specific users in mind matching workflows and functionality to their job functions and daily tasks.

Additionally, many of our features and capabilities came from customer feedback provided over the years and numerous software deployments.



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Next Steps

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About Earnix, Ltd.

Earnix is the premier provider of mission-critical intelligent solutions designed to transform how global insurers and banks are run. Earnix solutions unlock value across all facets of the business, connecting with customers, and breaking away from the status quo imposed by legacy monolithic, single systems. Earnix's solutions offer systemized, enterprise-wide value with ultra-fast ROI. It has been innovating for Insurers and Banks since 2001 with offices in the Americas, Europe, Asia Pacific, and Israel. For more information visit: earnix.com.

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