BLACKBIRD FOR TRAINING

AI in E-commerce: Mastering Dynamic Pricing and Analysis



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Introduction

Artificial intelligence has become an important driver in the development of e-commerce. It helps organizations analyze customer behavior, understand demand movement, improve pricing decisions, and manage offers with greater accuracy. As competition continues to increase in digital markets, relying only on fixed pricing or traditional analysis is no longer sufficient. Businesses need intelligent tools that can read data, monitor changes, and respond quickly to market trends.

This course focuses on AI in E-commerce: Mastering Dynamic Pricing and Analysis by connecting essential concepts with practical applications in digital commerce environments. It covers the use of artificial intelligence in analyzing sales data, customer behavior, competitor activity, demand, and inventory in order to build more flexible and accurate pricing strategies.

The course is structured over one week in a clear sequence. It starts with the role of artificial intelligence in e-commerce, then moves into data analysis, customer behavior, dynamic pricing models, performance analysis, governance, and an integrated application that connects all topics to a practical e-commerce case.

Course Objectives

By the end of this course, participants will be able to:

- Understand the role of artificial intelligence in developing e-commerce and improving pricing decisions.
- Identify the concept of dynamic pricing and its importance in digital markets.
- Analyze sales and customer data to extract indicators that support decision-making.
- Understand the relationship between demand, competition, inventory, and customer behavior in pricing decisions.
- Use intelligent analytics to monitor market trends and price changes.
- Identify the main factors that influence flexible and effective pricing strategies.
- Analyze product and offer performance using data and indicators.
- Evaluate the impact of dynamic pricing on revenue, profitability, and customer satisfaction.
- Understand the use of artificial intelligence in demand forecasting and commercial decision improvement.
- Recognize data quality requirements when using intelligent analysis tools.
- Examine challenges related to automated pricing, transparency, and customer trust.
- Develop a practical concept for using artificial intelligence to improve pricing and analysis within an e-commerce platform.



Course Outlines

Day 1: Introduction to Artificial Intelligence in E-commerce

- The concept of artificial intelligence and its role in developing e-commerce.
- The evolution of intelligent analytics in digital platforms and online stores.
- The relationship between data, customer behavior, and pricing decisions.
- Key areas where artificial intelligence is used in e-commerce.
- The impact of artificial intelligence on customer experience, sales, and profitability.
- Practical examples of artificial intelligence use in digital commerce environments.

Day 2: Customer and Sales Data Analysis

- Types of data used in e-commerce and performance analysis.
- Collecting and organizing customer and sales data for analytical use.
- Analyzing customer behavior, including browsing, purchasing, repeat buying, and cart abandonment.
- Reading sales, product, and promotional performance indicators.
- Using data to understand customer needs and forecast demand patterns.
- Practical application of analyzing online store data and linking results to business decisions.

Day 3: Dynamic Pricing and Price Decision Design

- The concept of dynamic pricing and how it works in e-commerce.
- Factors that influence pricing, such as demand, competition, inventory, and seasonality.
- Using artificial intelligence to monitor price changes and market trends.
- Designing flexible pricing rules based on data and commercial objectives.
- Evaluating the impact of pricing on conversion rate, revenue, and profitability.
- Practical application of building a pricing concept for a product using data and indicators.

Day 4: Forecasting and Advanced Commercial Performance Analysis

- Using predictive analytics to forecast demand and sales movement.
- Analyzing product performance and identifying high-performing and low-performing products.
- Measuring the impact of campaigns and offers on purchasing behavior and revenue.
- Using indicators to monitor profitability, conversion rate, and average order value.
- Analyzing the relationship between pricing, customer experience, and loyalty.
- Practical application of interpreting analytical results and proposing decisions to improve performance.



Day 5: Governance and Integrated Application for Pricing and Analysis

- Data quality and accuracy requirements in pricing and analysis models.
- Challenges related to automated pricing and its impact on customer trust.
- Ethical and regulatory aspects of using artificial intelligence in pricing.
- Reviewing success indicators for dynamic pricing and commercial analysis.
- Preparing a monitoring and continuous improvement plan for pricing and performance decisions.
- Integrated application for developing a practical concept for using artificial intelligence in pricing and analysis within an e-commerce platform.

Why Attend this Course: Wins & Losses!

- Gain practical understanding of the role of artificial intelligence in e-commerce.
- Improve the ability to analyze customer and sales data in a structured way.
- Understand dynamic pricing mechanisms and connect them with revenue and profitability goals.
- Use data to forecast demand and market trends.
- Develop the ability to analyze competition and its impact on pricing decisions.
- Improve offer and discount decisions based on clear indicators.
- Connect pricing with customer experience, conversion rates, and loyalty.
- Evaluate the impact of artificial intelligence models on commercial performance.
- Understand data quality and governance challenges in automated pricing.
- Develop a practical concept that can be applied to improve pricing and analysis in an e-commerce environment.

Conclusion

The AI in E-commerce: Mastering Dynamic Pricing and Analysis course provides a practical training framework that helps participants understand how artificial intelligence can improve pricing and analysis decisions in digital commerce environments. The course covers the key areas that connect data, customer behavior, sales, competition, inventory, and pricing, supporting more accurate decisions that reflect real market conditions.

The program follows a clear sequence. It begins with the general concepts of artificial intelligence in e-commerce, then moves into customer and sales data analysis. It then focuses on dynamic pricing and price decision design, followed by predictive analytics and commercial performance measurement. The final day addresses governance and integrated application.

Through the practical application, participants will connect the course content with a realistic e-commerce platform case, analyze opportunities for using artificial intelligence in pricing, and define requirements, risks, and success indicators. The course provides applicable knowledge across e-commerce, sales, marketing, product management, and commercial analysis, supporting improved revenue, stronger decision-making, and enhanced customer experience.

