



AI Certification Program

Executive Summary



AI⁺
Product Manager
Fundamentals™

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Introduction

This AI+ Product Manager Fundamentals certification offers a solid Artificial Intelligence (AI) foundation for product managers. It simplifies AI concepts, terminologies, and applications by explaining Machine Learning (ML), neural networks, and expert systems with their evolution and impact. The certification emphasizes AI's role in enhancing efficiency, innovation, and personalized customer experiences, highlighting the vital link between advanced technology and market-driven solutions. Product managers will gain technical and strategic skills, including data preparation, ethics, and bias prevention, ensuring fair and effective AI use. Hands-on tasks allow learners to apply AI in product development life cycle.

The certification showcases AI's competitive advantages, helping product managers use data-driven insights to enhance ideation, conceptualization, prototyping, and testing. Topics such as AI ethics, stakeholder management, and regulatory compliance equip learners to handle the broader impacts of AI implementation. This certification helps product managers anticipate and respond to technological advances by exploring future trends and strategic AI planning, enabling continuous improvement and innovation. We will cover the following topics to help you understand the incorporation of AI in product management.

- Introduction to AI for Product Managers
- Fundamentals of Machine Learning
- AI Product Development Lifecycle
- AI Ethics and Bias
- AI Implementation Strategies
- AI Metrics and Performance Evaluation
- AI Regulation and Compliance
- Future Trends in AI and Product Management

Certification Prerequisites

- **Familiarity with Digital Technologies:** Understanding the basics of digital technologies and their influence on various aspects of professional life.
- **Eagerness to Explore AI Integration in Product Development:** Interest in learning about the integration of AI technologies within product development.
- **Openness to Learn New Concepts and Technologies:** An open mindset towards learning new concepts and technological developments.

Who Should Enroll?

- **Product Managers:** Looking to leverage AI to solve business problems and enhance product offerings.
- **IT Professionals and Developers:** Aiming to integrate AI technologies into product development.
- **Business Leaders and Entrepreneurs:** Seeking to drive innovation and strategic growth through AI-powered products.

Certification Goals and Learning Outcomes

- Understand the fundamental aspects of integrating AI into product development.
- Learn about ML, ethics, AI integration, performance evaluation, regulation, and emerging trends.
- Gain skills to manage the entire lifecycle of AI-driven products.
- Develop strategic approaches for AI integration and innovation.
- Build proactive product strategies to stay competitive in a dynamic tech landscape.

The Impact of AI on Modern Business Practices

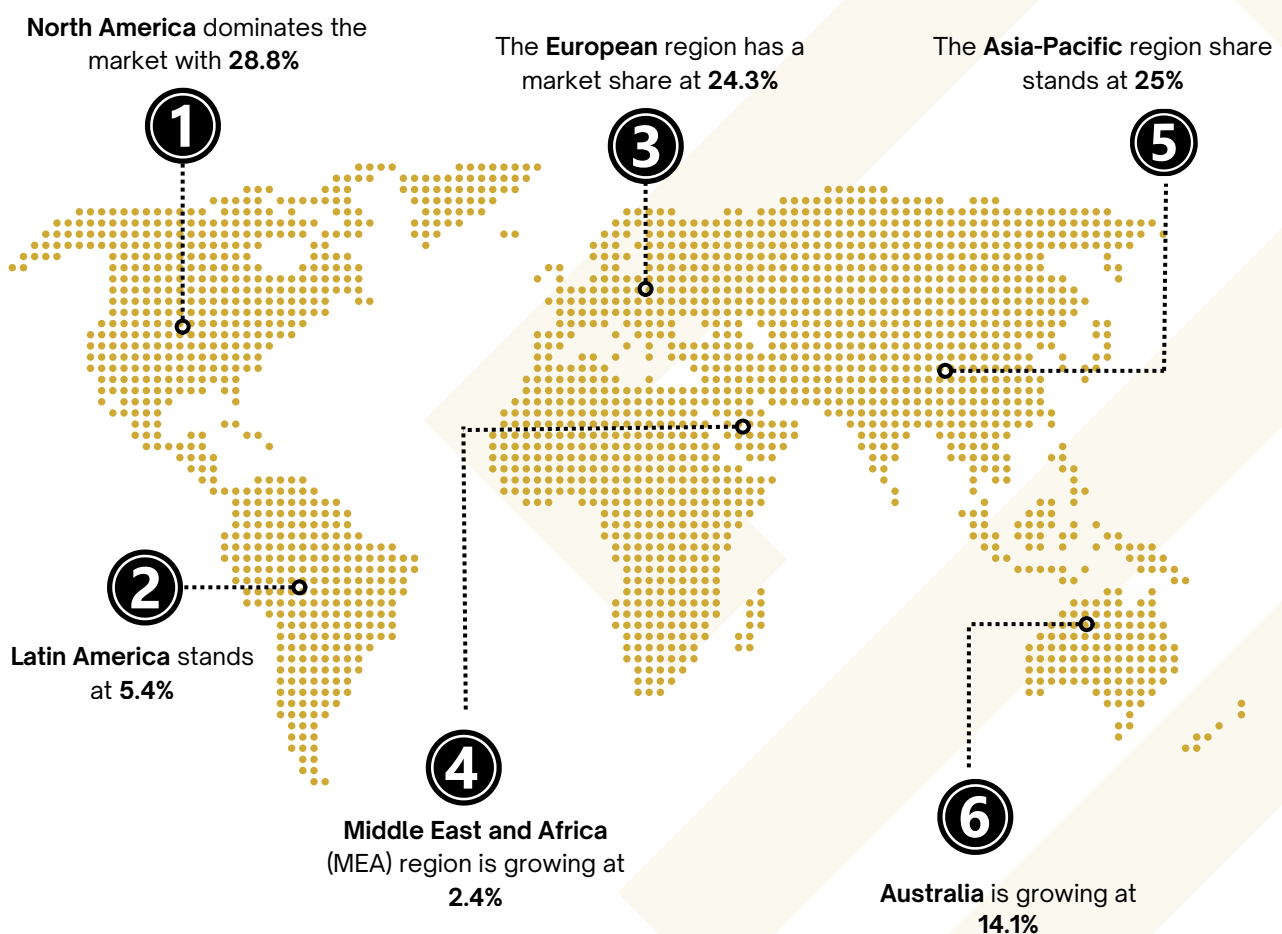


Figure 1: AI Global Market Share
Source: IBM, Forbes, and PWC

The rapid advancement and widespread adoption of AI technology across various industries have driven its revolutionary evolution. Initially confined to academic research and experimental use, AI has now become a mainstream industry, significantly impacting business strategies and operations.

AI is set to revolutionize the global economy. North America leads with a 28.8% share, while the Asia-Pacific region follows with 25%. Europe holds 24.3% of the market, and Australia is experiencing a growth rate of 14.1%. Latin America and the Middle East and Africa (MEA) region each contribute 5.4%, demonstrating AI's regional growth. This extensive adoption highlights AI's capability to enhance operations across multiple sectors.

The evolution of AI technologies is profoundly reshaping the role of product managers. With AI, product managers can now leverage advanced data analytics, ML, and predictive algorithms to better understand market trends, customer needs, and product performance. This allows for more informed decision-making, enhanced product personalization, and efficient resource allocation. AI tools can automate routine tasks, freeing product managers to focus on strategic planning and innovation.

Furthermore, AI-driven insights help in identifying new opportunities and optimizing the product lifecycle from ideation to market launch, ensuring that products remain competitive and aligned with consumer expectations

What is Next for AI?

Product managers will increasingly rely on AI to analyze market trends, predict customer behaviors, and optimize resource allocation, making their roles more strategic and impactful.

AI will automate routine tasks, allowing product managers to focus on creative and high-value activities. Furthermore, advanced AI tools will enable real-time feedback and agile adjustments, ensuring that products continuously evolve to meet market demands and consumer expectations, positioning product managers at the forefront of technological and market innovation.

How AI Transforms the Roles and Responsibilities of Product Managers

AI is transforming all industries with unprecedented growth, efficiency, and creativity. Studies indicate that 70% of product managers use AI for predictive insights to guide their product strategies. Here are keyways AI is driving this transformation:

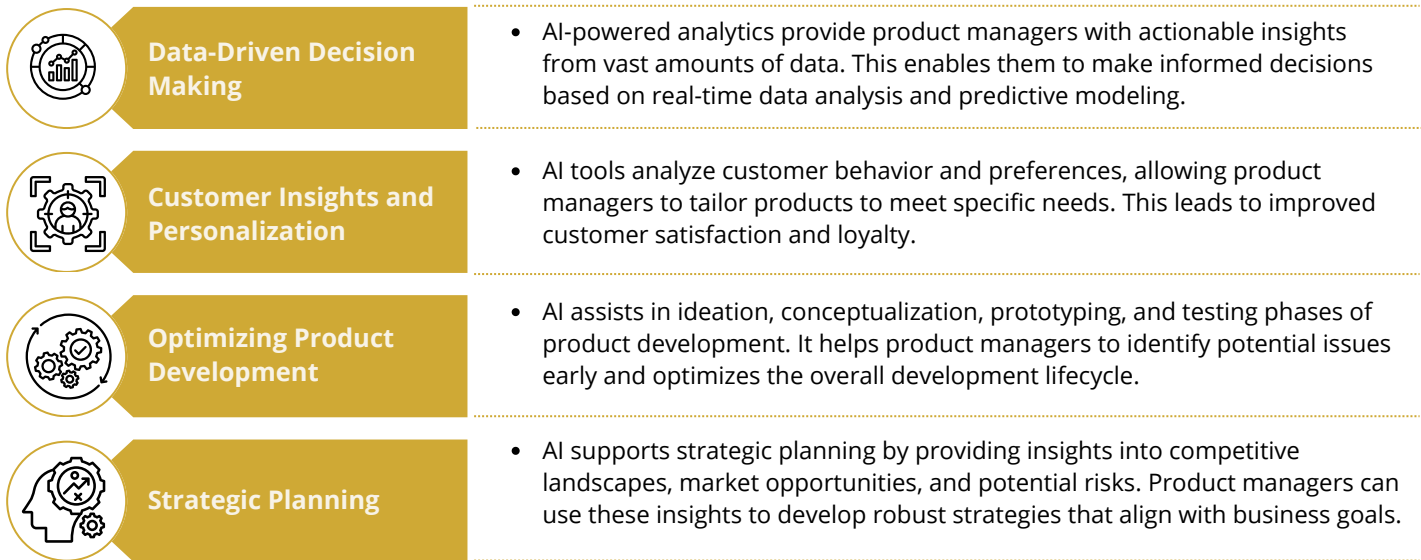


Figure 2: Exploring How AI Transform Roles and Responsibilities of Product Managers

Hence the figure showcases how AI empowers product managers to make more informed decisions, improve customer experiences, streamline operations, and drive innovation by transforming the roles and responsibilities of product manager.

How AI Addresses Challenges for Product Managers

AI plays a crucial role in overcoming challenges and revolutionizing decision-making processes. By utilizing AI, product managers can unlock remarkable productivity and growth opportunities. Let's dive into how AI can empower product managers by tackling existing challenges.

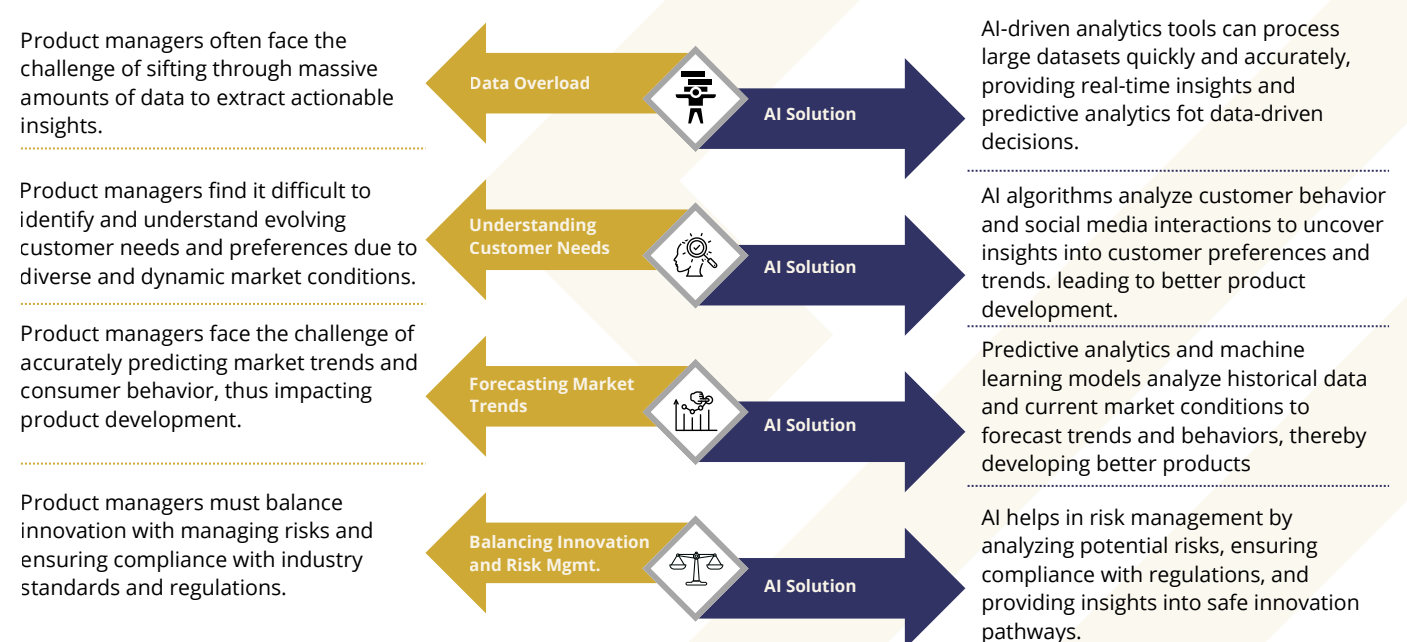


Figure 3: AI Addressing Current Challenges for Product Managers

By utilizing these AI capabilities, product managers can optimize processes, make informed decisions based on data, and improve product offerings to more effectively address market demands and customer needs.

How Industries are Adopting AI

Industries are swiftly adopting AI in product management to drive workforce efficiency and support employees. AI-driven tools are automating routine tasks such as data analysis, market research, and reporting, allowing product managers to focus on strategic decisions and innovation. AI is also improving collaboration through smart scheduling and task management systems. Additionally, AI-powered insights into user behavior and market trends are empowering employees to make informed, data-driven decisions, enhancing both product development and customer satisfaction. This adoption not only boosts productivity but also helps employees adjust to evolving roles, fostering a more agile and responsive work environment.

How to Integrate AI in Product Management Practices

Integrating AI into product management practices involves a series of strategic steps to leverage AI's capabilities effectively:

- ✓ **Define Objectives and Assess Needs**
- ✓ **Select Appropriate AI Tools**
- ✓ **Prepare and Analyze Data**
- ✓ **Implement AI for Insights and Forecasting**
- ✓ **Automate and Optimize Processes**
- ✓ **Integrate AI into Product Development**
- ✓ **Monitor, Adjust, and Upskill**



Figure 4: Integrating AI in Product Management Practices

By focusing on these steps, product managers can effectively integrate AI into their practices, driving better decision-making, enhancing product development, and achieving strategic business objectives.

A Brief Overview of AI+ Product Manager Fundamentals Certification

Through role-based certifications, AI CERTs empowers organizations to fully leverage the potential of AI.

Let's navigate through the core concepts in AI+ Product Manager Fundamentals modules to enhance your skills in managing AI-driven products.

Module 1: Introduction to AI for Product Managers

AI revolutionizes product development, management, and delivery. According to Forbes, Netflix pays AI Product Managers between \$300,000-\$900,000 per annum and, therefore, it is a good opportunity for tech-savvy talents seeking to initiate change.

The module explains how AI revolutionizes product development and management. It covers the basic concepts of AI, its historical advances, and its applications in product management. Emphasis is placed on understanding ethical considerations, managing biases, and ensuring effective integration. Product managers will gain insights into how AI can enhance their projects and lead efforts to innovate and excel in a rapidly evolving market.

Module 2: Fundamentals of Machine Learning

AI relies on ML methods to teach computers to learn from and make judgments from data. As per Precedence Research report, the global ML market is expected to expand around \$771.38 billion by 2032, with a CAGR of 35.09% during the forecast period from 2023 to 2032.



Figure 5: Global ML Market (2023 - 2032)
Source: Precedence Research

This module focuses on the ML process, emphasizing data preparation as a critical step. It covers various ML types—supervised, unsupervised, and reinforcement learning—and their applications. The module provides hands-on experience in data cleaning, integration, and transformation using Pandas, ensuring participants can develop accurate and efficient ML models.

Module 3: AI Product Development Lifecycle

AI Product Development Lifecycle is crucial for structuring the creation of AI products, ensuring they are efficient, ethical, and aligned with business goals. It covers key stages like problem identification, data collection, model development, and deployment, helping manage risks and meet user needs while adhering to standards and regulations.



Figure 6: AI Product Development Lifecycle

Within this module, we also provide insights into how AI enhances product development by refining decision-making and optimizing designs. AI streamlines processes, reduces costs, and accelerates the creation of high-quality products. We cover the importance of understanding objectives, preparing data, and managing AI solutions effectively. Applications in manufacturing, healthcare, and automotive are discussed, along with AI's role in agile project management and rapid experimentation.

Module 4: AI Ethics and Bias

Product managers must prioritize ethics in AI product development and implementation. For equal outcomes, AI systems must address bias and ensure fairness because inherent biases can unfairly treat certain populations.

This module aims to guide product managers in embedding ethics into AI development by addressing bias, ensuring privacy, and maintaining transparency. The module emphasizes the need for ethical responsibility, especially in critical applications, and continuous adaptation to regulatory changes. By prioritizing these aspects, product managers can develop fair and trustworthy AI solutions.

Module 5: AI Implementation Strategies

AI implementation strategies are important for effectively integrating AI into systems, aligning projects with business goals, managing resources, and ensuring scalability. They help address challenges like data management, model training, and compliance, ensuring AI delivers value while maintaining ethical standards. Within this module, we explore integrating AI into existing products by focusing on recognizing AI's potential, selecting appropriate technologies, and ensuring smooth implementation and monitoring. The module also emphasizes the importance of effective stakeholder management to understand needs, engage support, and align AI initiatives with organizational goals for successful integration.

Module 6: AI Metrics and Performance Evaluation

AI metrics and performance evaluation are essential for ensuring that AI systems meet goals, deliver accurate results, and provide value. They help identify issues, optimize models, and guide improvements, maintaining quality and compliance.

The focus of this module is on evaluating AI-driven products through Key Performance Indicators (KPIs) like productivity, customer satisfaction, and cost savings to measure effectiveness and impact. It covers real-time monitoring and predictive analytics with AI tools, such as Google Analytics 360 and SEMrush, to gain market insights. The module also introduces performance evaluation methods, including confusion matrices, AUC-ROC curves, and log loss, to ensure AI models are accurate, efficient, and reliable.

Module 7: AI Regulation and Compliance

AI regulation and compliance ensure the responsible, ethical, and legal use of AI technologies. They protect user rights, ensure data privacy, and prevent discrimination, while providing frameworks for accountability and transparency. This fosters public trust and aligns AI with societal values and legal standards.

The module covers the need for regulatory knowledge in responsible AI implementation, addressing diverse and evolving AI policies like the European Union's General Data Protection Regulation (EU's GDPR) and United States (US) sector-specific laws. It emphasizes the importance of effective compliance practices for managing risks, ensuring transparency, and building consumer trust. Key elements include understanding regulations, safeguarding data, and fostering a compliance-focused culture with ongoing training and audits. By staying updated on legislation and adapting strategies, businesses can ensure ethical AI use and avoid operational challenges.

Module 8: Future Trends in AI and Product Management

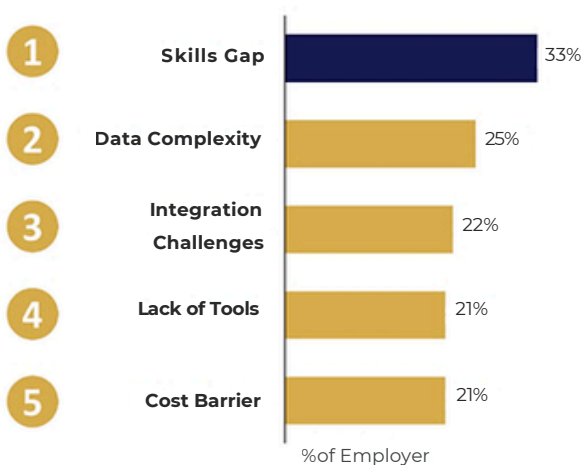
AI is advancing, and emerging technologies are influencing product management. These trends are transforming product management by fostering innovations that enhance functionality and boost customer satisfaction.

The module dives deeply into the impact of evolving AI technologies, like explainable AI and human-centric design, on product management. It highlights the need for strategic planning and a step-by-step guide to integrate AI advancements, helping product managers innovate and stay competitive in a fast-changing tech landscape.

How Can AI CERTs Help Build an AI-Ready Culture?

AI technologies can help organizations, but skill shortages, data complexity, and integration issues might hinder implementation. AI CERTs offer outstanding certifications to help organizations solve these issues.

Why do companies struggle to adopt AI technologies? (2023)



Share of employers saying lacking AI skills is a barrier to adopt AI (2023)

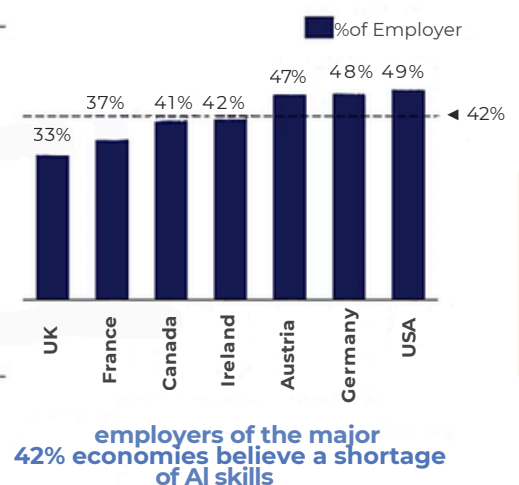


Figure 7: Factors determining the lack of adopting AI Technologies

Source: OCED and IBM

Bridging the AI Skill Gap

- **Challenge:** A shortage of product managers skilled in AI hinders the integration of AI into product management. Many lack the technical expertise required to incorporate AI effectively into their product strategies and workflows.
- **Solution:** AI CERTs offer comprehensive training for product managers, covering AI applications in product management and strategy.
- **Benefit:** This training equips product managers with the skills needed to implement and leverage AI effectively, addressing the critical skills gap and enhancing their ability to drive product innovation and success.

Empowering Every Product Manager with AI Skills

- **Challenge:** Many product managers do not have access to the latest AI tools, platforms, and training materials necessary for skill development and staying current with advancements.
- **Solution:** AI CERTs provide specialized training that includes the latest AI tools and platforms, ensuring product managers are up-to-date with cutting-edge technologies.
- **Benefit:** With access to advanced AI tools and training, product managers can improve product development efficiency, optimize decision-making, and achieve superior product outcomes.

At AI CERTs, we offer a strategic solution, fostering a culture primed for AI integration and innovation. Our AI certification offers comprehensive training and industry-recognized credentials, empowering your workforce and propelling your organization toward an AI-driven future.

AI CERTs Cultivate AI Culture in Several Ways:

- Our structured certification thoroughly explores AI principles and applications, making AI more accessible.
- Lifelong learning ensures your workforce stays current on AI trends, giving you a competitive advantage.
- AI CERTs certification fosters knowledge sharing and eliminate departmental silos through teamwork and cross-functional projects, which are crucial for AI implementation

AI CERTs: Your Pathway to Becoming AI-Ready

The future of business belongs to those who harness the power of AI.

Tailored for Success: Our certifications are designed to fit individual needs, offering specialized training from industry experts to give your team the exact skills needed for key AI roles.

Actionable Expertise: We focus on practical learning with projects and case studies, so your team gains the skills and confidence to effectively use AI technology, driving innovation and business growth.

Become an AI Leader: : Lead the way in AI with AI CERTs. Invest in your team to build an AI-driven culture and harness AI's power to achieve success for your organization.



www.aicerts.ai

Contact

252 West 37th St., Suite 1200W
New York, NY 10018

