

Problem statements – AI e-Commerce Project

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Background

AI e-Commerce Project is an online store offering a wide range of products across various categories. The platform is expanding but currently lacks intelligent personalization and automated customer interaction tools. Modern e-commerce users expect a personalized and seamless shopping experience, influenced by major marketplaces that already apply AI-driven solutions. Most mid-sized online stores, however, face technical and financial barriers to implementing such technologies. To close this gap, we are developing an AI e-commerce Assistant — a digital consultant that enhances product discovery, provides real-time support, and delivers personalized recommendations to improve user satisfaction and sales conversion.

Identified Problems by Pain Point Category

Category	Problem	Impact on User	Impact on Business
Process	Users must manually search and filter products without any AI assistance or personalization.	The shopping process is slow and tiring, leading to frustration and abandoned carts.	Higher bounce rates and lower conversion rates.
Product	The website does not adapt to user preferences or display personalized recommendations.	Users do not feel supported or understood during their shopping journey.	Reduced engagement and decreased customer loyalty.
Support	Customer communication is limited to a basic contact form with no instant responses or AI chatbot.	Users cannot receive quick help or advice when choosing a product.	Lower customer satisfaction and reduced trust in the brand.
Financial	Due to the lack of personalization, the website cannot offer related or complementary products or personalized discounts.	Users miss relevant product suggestions and special offers.	Lost revenue opportunities, decreased average order value.

The 5 Ws and H

Question	Answer
Who	Online shoppers who visit our website to find and purchase products across various categories.
What	They struggle to find the right products quickly and receive no personalized recommendations or instant assistance.

Where	On the e-commerce platform — primarily via desktop and mobile web
When	During product search, selection, and decision-making — especially when browsing large catalogs or comparing items.
Why	Because the website lacks an AI-powered assistant that understands user preferences, behavior, and intent.
How	Users try to navigate manually through search filters, generic listings, and static content — often abandoning the website out of frustration

Final Problem Description

Final Problem Statement (Formula)

Online shoppers are customers who need a faster and more personalized shopping experience **because** the website currently lacks an AI assistant that understands their preferences and provides real-time recommendations.

Online shoppers find it difficult to quickly locate relevant products because the website lacks AI-based personalization and instant support. This causes frustration, longer search times, and cart abandonment, resulting in lower conversions and lost revenue. The AI e-commerce Assistant will solve this by providing personalized recommendations, real-time help, and smarter navigation — making the shopping experience faster, easier, and more enjoyable.