From 6 Months To 6 Weeks – Walmart's AI-Powered Fashion Revolution

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Abstract—This present paper examines Walmart's integration of generative AI in transforming its fashion retail operations. Central to this innovation is the "Trend-to-Product" tool, which condenses the traditional six-month design cycle into six weeks. By analysing global social media trends, influencer content, and previous sales data, the tool generates mood boards, color palettes, and complete fashion tech packs within minutes. This strategic use of AI enhances relevance, customer connection, and operational efficiency while maintaining ethical sourcing standards. The narrative traces the shift from conventional processes to AI-driven design, revealing its potential to reshape product development beyond fashion into multiple retail categories.

Index Terms—Generative Artificial Intelligence, Fashion Retail Innovation, Trend-to-Product, Adaptive Retail Strategy

I. INTRODUCTION

In April 2025, Walmart came up with a groundbreaking AI tool that is transforming fashion retail and changed the fashion game. It reshaped product innovation in clothing & designing with AI which became a huge leap in fashion industry. Imagine a latest fashion trend on Instagram or Tik Tok today, Clothes were designed tomorrow and within few weeks they are available in stores where you can buy your favourite cloth that is trending. Seems good right? This is what Walmart has done in recent months. By combining AI and Human knowledge, Walmart is staying ahead of latest trends as well as predicting them. This article explores Walmart's story of coming up with this AI, how it prompted AI tool and its operational impact which helped it to position itself at the top compared to its competitors.

II. IDEA OF TREND-TO-PRODUCT

Previously, Walmart was stuck in a Six – month design cycle on one side and customers wanted fresh and on trend clothing fast. This resulted in missed sales, declining brand relevance. There was a growing sense that they were falling behind because when it comes to being at par with trends, competition is fierce.

Then they came up with this AI strategy which made them relevant again. That tool is Trend-To-Product. They got this idea when they were discussing about AI. The researchers discovered that computer programs study thousands of chemicals and come up new chemicals. Inspired by this, a team at Walmart's headquarters in Bentonville came up with a question – "What if we can use this AI technology – but for fashion?". In place of chemicals, they imagined AI scanning social media trends and store trends to design clothes faster. This idea on that day led to creation of Trend-to-product AI – Viral trend today, Clothing in few weeks.

Instead of falling into the same trap of chasing AI for headline like other companies, Walmart made a critical shift. They didn't just ask, "How do we use AI to speed up design?". Instead, they asked – "How can AI make our customers feel like we actually understand them?". That is the difference between a business question and a human question. While most companies chase AI to appear innovative, Walmart used it to actually connect with their customers and that changed everything. Walmart didn't just speed up production, they completely reframed what it means to stay relevant in a real-time economy. They didn't just improve systems; they rebuilt relevance and loyalty in a space where they were once seen as falling behind. Walmart was able to build the right solution because they didn't ask "How to serve customers fast?". They asked "How do we become more relevant to people we serve?". They launched this Trend-To-Product a Gen AI for designers. This Trend-To-Product, the tool uses AI and generative AI to analyze global data and trends, pulling information from the internet and influencers to help the fashion team at Walmart to create affordable on trend products. Mood boards, Color patterns, Collection titles of clothes and even texture – everything is autogenerated in a minute. Designers no longer have to spend weeks compiling research. And all this is not simply about automation. It is about giving creatives the right input to deliver high impact work.

Walmart provides internal tools to generative AI developers. That strategy is called "Adaptive Retail" strategy which means making products based on personal experiences that brings shopping to customers in exactly the way they want and need via AI.

III. FROM TREND TO PRODUCT

Trend-to-product represents huge leap forward. In fashion industry, it takes 6 months to design and provide collection of clothing. Because, designers are researchers. They search the entire globe to get to know about all latest social media and trend services. Trend-to-product condenses all this work. Research time comes from weeks to minutes. How this tool works?

- 1. As a first step, this AI does what designers used to spend hours doing. This tool uses AI to make visual idea board filled with fashion themes, color combinations, style inspirations. It scans latest fashion websites, TikTok trends, Instagram posts and influencer content to collect ideas. The goal is to spot what's trending and takes it as a starting point for fashion collection plan.
- 2. In next step, Walmart's design team is given the AI visual idea board. They refine the ideas based on their experience and analysing previous sales data.

3. Once the collection is finalized, the tool creates a final "Fashion tech pack" – a guiding material which includes fabric details, sizes and fits, stitching and measurement, colors, material. This is sent to the suppliers and factories to make them know how to exactly make each clothing item.

"Trend-to-Product empowers our private brand design and product development associates to spend less time chasing trends and more time doing what they love most – creating and delivering high quality, on-trend items for our customers for every season and occasion," said Jen Jackson Brown, senior vice president for apparel brand and design in Walmart U.S.

The Final Result? – Walmart used to spend 6 months for this whole process. This whole process takes an hour and they are made available online in 6 to 8 weeks. It shortened the process of launching new products by 18 weeks. There was 30%-50% drop in the time of designing a product. It assisted in product development and speed at the center of the vale proposition. Walmart continues to invest in cutting edge AI and Gen AI to increase customers. They train the models on their data, their brand DNA. Walmart is doing different that "Fast Fashion". They didn't compromise on standards of ethical and socially responsible sourcing. They don't need speed just for the sake of speed. But also, to add value to their products and customers.

IV. FUTURE PLAN

Walmart is not stopping with fashion. Trend-to-product could go beyond fashion. Walmart plans to bring great products to market in any category from beauty to food. It can be anything from great lipstick color or new product that sets internet on fire. Trending seasonal items and general merchandise products are priorities in the future. They are looking for opportunity to think differently and then to start to bring things to life in a much faster and an accelerated way.

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