# The Changing phase of the FMCG Industry with Artificial Intelligence

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## ABSTRACT

One of the largest industries of the economy is the Fast-Moving Consumer Goods Industry. AI's emergence creates an ideal & supportive reach towards the industrial sector. To begin with, this FMCG deals with many numbers of sales transactions on day-to-day activities. One of the major objectives is how Artificial Intelligence helps through various processes of fast-moving consumer goods by eliminating the hindrance of sales automation, price margin, customer recognition, and so on. So, it is the boom period of the FMCG in which it starts leveraging modern technologies like Artificial Intelligence to support/deliver and enhance the customer experience.

*Keywords*: *FMCG, Artificial Intelligence, Sales, Industry.*

## 1. INTRODUCTION

"Change is the only constant".

The main FMCG trends that address these shifts include digitalization, approaches that improve customer experience, and sustainable product creation and packaging.
In addition to omnichannel sales and e-commerce, food and beverage sector businesses are utilizing massive amounts of data, data analytics, and the use of AI to enhance customer experiences and acquire an edge over their competitors.

These sources—which encompass a wide range of social media platforms, internet sites, and mobile applications—provide organizations with necessary information that influences FMCG digital trends.

FMCG companies utilize AI to evaluate in-store consumer behavior and determine the optimal locations to sell specific products. With this knowledge, businesses may utilize smart product placement to increase sales and improve customer engagement.

**What is FMCG?**

Consumer packaged goods (CPG), sometimes referred to as fast-moving consumer goods, are affordable, in high demand, and quickly soldout products. Because buyers use such products frequently, they are commonly referred to as "fast-moving" commodities because they depart from store or supermarket shelves rapidly. Fast-moving consumer goods include packaged food, stationery, beverages, toiletries, over-the-counter medications, cleaning and laundry supplies, plastic goods, personal care items, and inexpensive consumer gadgets like headphones and smartphones.

Particularly perishable are several fast-moving goods for consumers like meat, dairy, baked items, fruit, and vegetables.

The FMCG industry is distinguished by a number of factors, including low profit per product but total profit, fierce rivalry, large volume, prepackaged products in small numbers, and reasonable costs.

**Top FMCG Companies:**

What exactly is the FMCG industry, to help you understand it better? A few FMCG companies are listed here:

**1. Coca-Cola**

PepsiCo is one of the most valuable companies in the world, and it is well-known. Many well-known brands, such as Pepsi and Aquafina, are owned by food and beverage companies. PepsiCo was created in Harrison, New York, USA in 1965. The company mostly sells meals, snacks, and beverages. PepsiCo has many consumers, branches, stores, agents, retailers, and so on all around the world. This F&B brand is also well-known in the Vietnamese FMCG business.

**2. Nestle**

Nestle is a Swiss food manufacturer. With over 29 product names and a total sale of $1.1 billion, this FMCG brand is said to have the highest size in the world. Milo, La Vie, Nestlé milk, and many other well-known brands are among those held by the corporation. Nestle presently operates in over 200 countries and owns 447 plants.

**What is Artificial Intelligence?**

Artificial intelligence is a replica of human cognitive processes by machines, especially computer systems. Writing and training machine learning techniques necessitates specially designed software and hardware, which is required for AI. AI has the power to completely transform a number of facets of human existence, such as marketing, education, business, and product creation. This rapidly growing population of generative AI tools will be crucial in various fields.

**AI`s Benefits**
- Detail-oriented work suits.
- Time saved on data-intensive jobs.
- Increases production while saving labor.

**AI's disadvantages**
- Lack of enough skilled workers to build AI tools.

- Lack of ability to switch between different tasks.

## 2. OBJECTIVES OF THE STUDY

Studying the theory of machine intelligence improving FMCG industries and how adoption of AI may enhance an organization's overall performance and productivity will be the key goals of the study paper. Understanding the difficulties and offering solutions will help the FMCG sectors predict consumer demand for goods and services more accurately, which will ultimately increase profitability and enhance their overall efficiency.

## 3. HOW AI HELP IN THE FMCG INDUSTRY?

The 'proper' procedures in place can assist boost productivity, optimize resource use, and cut expenses overall. These consist of identifying efficiencies, improving company processes, and sharing data across departments. You can develop a technology framework that matches your objectives by reviewing several market solutions, including customer-facing CRM systems and back-office ERP solutions, with the assistance of a strategic partner.

Artificial intelligence in FMCG assists in the optimization of sales processes by responding to inquiries about the product or service, pricing, and shipping. In the FMCG industry, artificial intelligence analyses data such as inventory levels and sales trends.

Generative AI is a powerful tool that can impact customer success in several ways: 1. High efficiency, 2. Proactive and better support experience, 3. High customer retention and expansion, 4. Increase customer loyalty, 5. Churn prediction.

## 4. VARIOUS USES

**Use of AI in the FMCG Industry**

AI is revolutionizing the FMCG/CPG industry through various methods, including:

a) **Sales Forecasting**

By forecasting consumer purchases, a company can plan production by its knowledge of the sales that will occur soon. You may make wise company decisions and foresee short- and long-term performance with accurate sales projections generated by the application of AI. If the prediction is unfavorable, the proper precautions can be taken.

b) **Customer Behaviour Analysis**

This is the study of consumer purchase patterns, preferred options, least-liked goods, favorite places, buying customs, tastes, and market trends. Customer`s Sentiment Analysis and Decision Making A company can acquire insight and efficiently respond to its customers by using an an artificial intelligence method to extract feelings from online content and discover consumers' opinions on a good, service, or brand. Automating decision-making and customer service is also possible with machine learning.

c) **Demand Sensing and Raw Material Consumption Prediction**

To avoid shortages or wastage of supply, forecast future demand and foresee which raw materials will be required over time using deep learning frameworks. Pricing and sales are correlated via machine learning, which then uses that knowledge to continuously improve the price.

### d) Automated Targeted Marketing

Rather than advertising to all people and all things, if not focus on those who are most likely to purchase your goods? The platform will provide you with recommendations regarding where to advertise and which social media platform to use.

### e) Logistics management

In these COVID-19 times, enable your retailers and customers to easily place orders directly from your business and track their goods, eliminating the need for an intermediary. When a shortage is identified, let your suppliers be able to automatically organize orders for raw materials, saving you the trouble of maintaining track of each raw material that has to be restocked.

### f) Monitoring Industry Trends

The powered by AI platform will alert you to new products or market trends and provide guidance on whether to invest in trends for your business. Pricing and sales are correlated via machine learning, which then uses that knowledge to continuously improve the price.
Benefits of AI in FMCG:

We might believe that AI could bring significant growth by –
- ❖ Optimization of the Supply Chain
- ❖ Manufacturing Excellence
- ❖ Customised Marketing
- ❖ Improved Customer Service
- ❖ Data-driven Decision Making
- ❖ Innovative Product Development
- ❖ Detection of Fraud and Risk Management

## 5. MINOR CHALLENGES OF FMCG IN ADOPTION OF AI

These include a lack of skilled workforce, a challenge in data quality and availability, regulatory and privacy concerns, complex integration across various operations, customization for FMCG dynamics, and ethical considerations. Regulatory and privacy concerns arise due to sensitive customer data, and companies must obtain informed consent from consumers for data collection and AI-driven processing. Ethical considerations are also a concern, as AI decisions can sometimes lack transparency, leading to concerns about bias, fairness, and accountability. To build consumer trust, FMCG companies must develop explainable AI systems that allow consumers to understand the basis of recommendations and decisions.

## 6. SOLUTIONS TO OVERCOME THE PROBLEM

There are various solutions you might take to solve the difficulty areas of the fast-moving consumer products market. The best organizations use information technology, reevaluate their approaches, and put mixed retail strategies into practice. Here are a few tried-and-true solutions that employ technology like order and inventory software to help FMCG organizations better deal with the sector.

1. **Inventory control system**

Inventory management is difficult in the FMCG industry due to the volume of inventory that must be managed. One of the most difficult duties in the FMCG industry is restocking. If your system offers stock quantity notifications and inventory visibility, managing the levels of inventory will be simpler.

2. **Omnichannel Integration**

You may be available wherever clients feel comfortable making purchases with an omnichannel presence. All of your sales touchpoints will be integrated into a centralized ecosystem by this dynamic system.

### 3. Catalog automation

Consider catalog automation and sales platform integrations to get over blockages that happen while beginning a large number of FMCG products across numerous channels. Merely store your good's details and associated files on these platforms, and the different shop networks will share them to create advertising.

### 4. Batch and expiration control

Keeping an eye on batch expiry can be achieved by using stock rotation, another level of inventory management. Using an advanced WMS, it is easy to add this feature to identify stock items that have expired or are soon to expire. Furthermore, it ensures that any items nearing expiration are sold first when orders are received.

### 5. Distribution of flow

Order processing can be accelerated, and products can be moved straight from inbound to outbound.
- Quickly distribute or transport products from the source to the customer.
- Products are received through an inbound door and transferred to the outbound dock.
- Complete partial orders
- While wrong products are being processed for returns, move the correct ones.

### 6. Order splitting technology

A Warehouse Management System is another option for dealing with this scenario. With the use of these tech stacks, you may quickly determine which additional warehouses or stores are nearest to the consumer in order to complete their pending purchase. Make sure you fully investigate e-commerce and inventory management systems before choosing one, as not all of them come with these features.

### 7. Coordinated handling of B2C and B2B orders

In the FMCG sector, managing B2B and B2C orders from the same system is more in demand. The system ascertains the type of order (B2B or B2C), the required product, and the quantity upon receiving an order. When a B2B order is placed, they will be notified that choosing complete cartoons rather than individual product parts is required for order fulfillment. In a similar vein, B2C customers will be provided with the exact quantity required for each order.

### 8. Consistent experience even with specialized goods

Whole foods, organic foods, and premium consumer goods are examples of specialty items in the FMCG industry. Despite being in the specialty category, inventory control,

availability, and prompt delivery are essential because customers, no matter how unique a product is, want rapid gratification.

## 7. RESULTS AND DISCUSSION

We now understand the benefits of innovation and why it is so crucial in the market for consumer products that move quickly, or FMCG. FMCG have a high turnover rate and a highly competitive market, with major companies like HUL, ITC, Himalaya, Britannia, Marico, and Dabur competing for market share. To reach rural markets, businesses use strategies like vernacular adoption, local language communication, and social commerce.

Rural customers view purchases as investments and value for money, and FMCGs are important to the economy as they impact every aspect of consumer life.
Companies like HUL, ITC, Himalaya, Britannia, Marico, and Dabur mainly decide prices, quantity, and quality based on competitors` performance.

## 8. CONCLUSION

To summarize, AI in FMCG is fast evolving, improving various processes and providing businesses with innumerable benefits.
AI can generate individualized marketing efforts that resonate with specific customers by analyzing data from many sources, such as social media and purchase history, resulting in better engagement and brand loyalty.

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