VisAI Labs

DAWNING A NEW ERA OF AI-POWERED RETAIL WITH AUTOMATED DIMENSIONING

Web-based business is the newest revolution in recent years. The rise of artificial intelligence, combined with the retail industry possesses a significant worldwide reaction. In the coming decades, the adoption of AI-driven intelligent automation in the retail industry would result in improved productivity and cutbacks. This whitepaper gives you an overview of how AI-powered retail with automated dimensioning is rising.
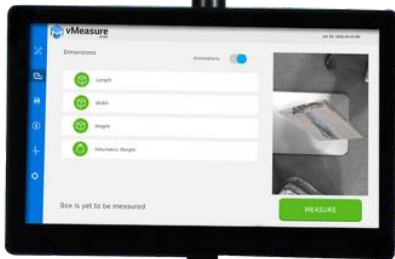
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INTRODUCTION:

A new era is dawning across the AI-driven retail vertical. Currently, retail businesses are now entering a new phase of digital transformation by embracing artificial intelligence into their core operation. The deployment of AI-powered automation technologies allows manufacturers in increasing efficiency with productivity in real-time. Based on the premise, significant e-commerce companies are bound to contribute a reasonable amount of costs to boost up their business in many respects. Consequently, right now, significant e-commerce companies are now automating their warehouses to boost product discovery with better data.

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VMEASURE
ASSEMBLE & DEPLOY IN 15 MINUTES

Instantly measures the length, height, and width
of any object and manage all your
dimensioning needs with an AI-driven solution

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ARTIFICIAL INTELLIGENCE IN THE RETAIL INDUSTRY:

The retail industry is expanding enormously worldwide. Artificial intelligence can automate each progression of the retail cycle. The implementation of AI in the retail sector will make operational activities more effective, efficient, and scalable. With the aid of AI, retailers can develop data by having colossal insights to help them make better decisions.

Below is a portion of the following use cases for empowering AI in the retail business:

Data development and labeling:

By utilizing computer vision (CV) algorithms, the products can be effortlessly identified and labeled precisely. Similar algorithms are used to generate new titles and descriptions that are rich in searchable metadata. The metadata is used to index the search engines, to boost the ranking of the product/item in the search engine result page (SERP).

Discovering the right product:

The first step for shopkeepers is the discovery of the correct commodity. The selection excursion of choosing the right product/item begins with the site search. Once an individual finds exactly what they're looking for, he/she is expected to return to the retailers for the purchase.

Data insights to drive better decisions:

Once the data is identified and labeled, then it is one of the easiest tasks to set a framework that can help make a better decision. Using AI, retailers can build data models for better decision-making based on data.

BENEFITS OF ADOPTING AI IN RETAIL OPERATIONS:

▶ Can plan an effective supply chain to boost up the revenue.

▶ Can drive high margins by accurate demand forecasting.

▶ Can develop practical and innovative sales, marketing, and promotion campaigns.

▶ Can easily reduce human blunders and can boost up productivity.

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EVOLUTION OF AI-POWERED RETAIL IN AUTOMATED DIMENSIONING:

The dawn of e-commerce combined with AI is a new buzz word in digital technology. Notable industries have started demonstrating various trials by successfully shipping products/items by taking up web-based orders. Centering that, the various large scale business ventures stock up their products in the warehouse to make all their products available to the customers. But it does not go adequately unless or until the proprietor balances to manage a proper supply chain. And again, there is another crucial area to focus on, which is an automated dimensioning solution.

WHAT IS AN AUTOMATED DIMENSIONING SOLUTION?

The automated dimensioning solution is a fundamental innovation adopted in large retail and warehouse sectors to calculate the dimensions of the parcels of varied shapes (cube, cuboid, and irregular) and sizes. The dimensions include length, breadth, height, and width. Some of the automated dimensioning solutions are further enhanced with the barcode scanners to track and navigate the product/item till it reaches the customers' doorstep. Adopting these dimensioners can reduce shipping charges, optimize the operations, and boost up the productivity, and increase throughput.

DID YOU KNOW?

Using Camera enabled Automated dimensioning solutions, you can use bolt-on AI applications for broken box detection or package optimization without additional investment?

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WHAT AUTOMATED DIMENSIONING SYSTEM CAN DO?

To get an automated dimensioning system to the retail industry, it is crucial to comprehend its necessity and analyze what can be done by deploying the system in real-time.

The below pointers will give you an insight into what an automated dimensioning system can do:

Improves space effectiveness:

With the assistance of an automated dimensioning system, the faultless dimension data is generated, which clears the way to decide on the exact space for storage and increases revenue.

Lessens labor time for weighing and dimensioning:

By actualizing the automated dimensioning system, the manual efforts can be effectively diminished, expand the productivity time, and lessen the month-on-month inutile pay.

Can easily get rid of shipping chargebacks:

For most of the clients, few things are extremely baffling when a product doesn't arrive on the expected day or takes forever to arrive. With the help of automated dimensioning, we can easily eliminate the shipping chargebacks and develop trust.

HOW THE RETAIL INDUSTRY BENEFITS FROM AUTOMATED DIMENSIONING

Most companies seek to adopt automated dimensioning solutions because the technology holds a lot of advantage that results in building blocks to managing the operations.

DID YOU KNOW?

Automated dimensioning solutions built on Stereo-camera tech are faster and more accurate than other types of dimensioning systems

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Below are some of the high-level benefits of adopting the automated dimensioning system to the vertical:

Decreased human blunders:

The traditional way of measuring the parcels is by using tape, and a ruler can sometimes cause a granular dimensional error, which inevitably leads to an excessive charge for freight. Using the automated dimensioners, we can easily sort the human errors.

Increased speed and productivity:

Speed is the only key tool to deliver output instantaneously. By deploying an automated dimensioning solution, the dimensional measurements can be estimated precisely. The recorded dimensional data can be stored and then can retrieve and utilize whenever it is needed.

Increased precision and performance:

At present most of the significant industries attempt the same-day and one-day deliveries as feasible ones. This leads to the growth of customers. The automated dimensioning systems pave the way to develop accurate dimensioning data, which helps in optimizing the determined space for the pallets, ensuring a smooth and simplified distribution process.

A QUICK GUIDE TO CHOOSING THE IDEAL AUTOMATED DIMENSIONING SYSTEM FOR THE RETAIL INDUSTRY

Enhancing an automated dimensioning system to the retail sector will enhance future-readiness – the idea of consistently getting ready, setting a framework, creating a significant opportunity, and deploying formal opportunities.

Below pointers assist to comprehend the main considerations in selecting the right automated dimensioning system for the future:

- Understand the scaling of your vertical, whether the industry and company needs are small or big.

- Analyzing the aspects of user-friendly dimensioning system technology.

- Adding additional criteria such as calculating the measurements and weight, capturing the photograph of the product, and scanning the barcodes along with size – multi-task various tasks.

- Analyzing the speed and performance of the dimensioner - helps to determine the day by day amount of the goods delivered every day from the warehouse to other distributional centers.

- After analyzing the various aspects of the process, such as a review of the overall experience, value-added offering, service and support, integration, and implementation, we need to choose the right vendor.

CONCLUSION

Most automation in the retail and warehouse industries are built with a computer vision for the identification of images or artifacts. And with artificial intelligence to carry out multiple tasks, such as moving the packages, managing the objects, and managing other inventory and order fulfillment activities.

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vMeasure Parcel Pro
S100

CHECK OUT THE COMPUTER VISION ENABLED AUTOMATED DIMENSIONING SYSTEM FOR WAREHOUSES AND ORDER FULFILLMENT CENTERS

Minimum Dimensioning: 10x10x10 cm

Maximum Dimensioning: 50x40x30 cm

Accuracy

+/- 5 mm for cubes and cuboids

+/- 10 mm for non-cuboidal shapes

Dimension:

- Cubes
- Cuboids
- Polybags
- Tubes
- Irregular shapes

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