



Your VIP customers buy more,
and they like it

Value based shopping assistance for premium customers

Ultinous Video Analysis Platform

CASE STUDY

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Using Ultinous' intelligent video analytics platform, a cash and carry wholesaler has been piloting a customer value-based shopping assistance system in one of its stores serving an average 900 customers a day. Using the historical POS data of the registered and identified customers of the Partner, value-based customer segments have been defined along with assigned service levels and representatives of the Partner. The pilot was introduced to the premium customer segment with the highest average monthly spending.

When a registered customer of the segment enters the Partner's store, Ultinous detects and recognizes the exact customer using facial recognition and sends an automatic alert to the respective representative aka shopping assistant. More than just alerting, the system also follows and locates the customer in the store area at any time supporting the assistant to interact as soon as possible. Evaluation of the pilot project showed that both hard data backed average customer cart value and researched customer satisfaction values has been significantly increased during the measured period. As Ultinous technology has been using the partner's already existing CCTV network, neither the implementation of the new added value service nor the turnover increase required significant financial investment.

The challenge

Wholesale has always been an industry playing hard on prices to win over the competition. Not to further erode profit margins the industry players are continuously looking for opportunities to differentiate themselves from their competitors. In this never-ending battle, more and more companies realized that the shopping experience as added value is far from the privilege of the retail sector and that by doing it the right way, it can be a real long term competitive advantage.

The store running the pilot serves an average 900 customers per day whose monthly purchasing value ranging from 1 000 € to 30 000 €. Providing the same personal customer care level for all of its customers without differentiation would not just be financially unviable but also technically impossible.

The solution

When a registered premium customer enters the store, the system immediately sends an automatic alert to the respective customer assistant. The assistant can join the customer during his/her visit in the store, can suggest new products or offer special one-time deals for the customer, based on the predefined internal segment service level rules. To support the in-time and easy interaction with the customers, the Ultinous retail platform not only identifies the customers but also detects their route throughout the entire store helping the assistant to locate and meet them in the shortest time frame as possible. To make it happen we use the person re-identification module. The person re-identification algorithm uses full body features (hairstyle, clothing, etc.) to identify the same person from different angles on different camera views even if the person's face is not visible, making face recognition non-applicable.



*Person re-identification applied in a store. The algorithm can match the person based on his full body features like hairstyle or clothing. **

As the Partner already had a CCTV network onsite that was IP addressable and was able to process live video feed with required technical specification, no camera related investment or installation was needed. To avoid bandwidth overload and moreover to protect customers privacy rights, detected faces are transformed into structured numeric data (vectors) on an on-premise installed server running the Ultinous retail platform. The unidentifiable data is transferred to the Ultinous data center in real time to be matched with the anonymized customer information. Matched data is sent back to the store and transformed to

actual customer information for the convenience of the Partner's respective personal.



*Real-time face recognition example. On the left: single picture registration images. On the right: people are moving with normal walking speed under a 25 FPS surveillance camera. In this scenario the system can identify 96% of the people. **

Results

Hard POS data analysis showed that **average cart size** in the premium customer segment (the segment that is entitled to have personal assistance and one-time special deals) has been **increased by 4,2%** on average (cleared from seasonal effects), while average loyalty score of the segment jump from 7,4 to 8,6 (on a 1 to 10 scale).

Average cart size growth in the Premium segment



About Ultinous

At Ultinous we provide intelligent video analytics technology to improve your products and services or build great new things. Our image and video recognition technology is made easily accessible by a clean API, empowering developers all over the world to build a new generation of intelligent applications.

About Ultinous Retail

The Ultinous Retail Platform leverages cutting edge Artificial Intelligence and Deep Learning, which means shopper patterns can be assessed in real time. Alerting methods depend on the individual store requirements. Ultinous Alert Platform can be implemented easily and cost effectively using the existing CCTV infrastructure into several to thousands stores. Ultinous Alert data can be easily combined with existing analytic information.

Contact

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**As of confidentiality reason pictures used in this business case has not been taken on the Partner's premises.*