



IDC ExpertROI® SPOTLIGHT

MUDO Unlocking Full Potential of Retail Data to the Benefit of Its Business with SAP HANA

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Overview

MUDO is a leading upscale retailer of apparel, furniture, and home accessories in Turkey. Founded in 1964, it has grown to 1,600 employees and almost 120 stores in 26 cities across the country, carrying four brands with four sales channels. Like many retailers, MUDO has had to adapt to significant growth to online sales and a more competitive retail market, requiring it to find new ways to reach and win new customers while minimizing customer churn.

According to Rasim Manavoğlu, CIO and COO of MUDO, and Ali Özgeç, director of Data Warehousing, Business Intelligence of MUDO, the retailer has long understood the criticality of converting retail data into insights that support the company's business operations. However, Manavoğlu and Özgeç said that it has often been challenging to achieve this objective.

In 2014, MUDO modernized its data warehousing operations by deploying the SAP HANA in-memory database platform. According to Manavoğlu and Özgeç, this move to SAP HANA as the foundation for the MUDO Insight platform has transformed the company's ability to generate value from retail data. They reported that MUDO Insight is being fed by non-SAP source systems and that they have added enhanced mobile reporting capabilities, C-level dashboards, and store/staff dashboards, and they intend to make use of predictive and customer analytics on the platform.

Manavoğlu and Özgeç reported that with SAP HANA in place, employees have timely, detailed, and actionable analytical data to work more productively and ultimately increase sales. According to Manavoğlu: *"I believe that we have truly unlocked the full potential value of retail data with SAP HANA. I can say that our users can now really conduct valuable analyses that are beneficial to our business."* Having a more reliable analytics platform has helped MUDO improve its business results in a

Business Value Highlights

Organization: MUDO

Location: Turkey

Challenge: Create actionable, real-time analytic insights based on retail data to enable improved business results and more efficient operations

Solution: Data warehousing with SAP HANA with non-SAP source systems, planning to support predictive and customer analytics

Five-Year Cumulative Benefits:

- Total discounted benefits worth €4.57 million
- ROI of 622%
- Payback in 5 months

Other Benefits:

- Lower cost than legacy data warehousing platform, 88% database consolidation
- Improved business results – €1.71 million higher revenue per year
- Higher productivity for sales, manager, CRM, finance, and application development teams
- 50% less time to manage
- 94% less frequent unplanned outages
- 225 times faster inventory stock analyses

very competitive market by better maintaining existing customers and winning new business through targeted campaigns and promotions.

According to Manavoğlu and Özgeç, SAP HANA enables the generation and delivery of timely reports that take complex data and concepts and distill them into insights that can be directly applied to day-to-day business. This means that many employees, but especially store managers as well as members of the sales team, CRM team, and finance team, benefit from more robust data and a better understanding of their business environment. In addition, Manavoğlu and Özgeç reported that SAP HANA costs less than the company's legacy data warehousing platform (thanks to compression capabilities), is more reliable, and requires less staff time to manage. They also mentioned that new features and functionalities can be delivered to the MUDO Insight platform in less time because of the lean design enabled by SAP HANA.

Based on interviews with Manavoğlu and Özgeç, IDC projects that MUDO will realize benefits worth €1.28 million per year over five years in higher employee productivity levels, increased revenue, IT staff efficiencies, and data warehousing-related cost reductions, which would result in a five-year return on investment (ROI) of 622%.

Implementation

Prior to deploying SAP HANA, MUDO had a more siloed data warehousing environment with two vendors at both the reporting level and the data warehousing level. According to Manavoğlu and Özgeç, the retailer was not getting the performance from its reporting operations that it needed, and its siloed approach was costly and inefficient to manage. As a result, in 2014, the company decided to reinvent its data warehousing operations as a business enabler.

With this objective in mind, MUDO set out to develop the MUDO Insight platform, which it envisioned as a reporting platform that would provide key employees with more timely, robust, and actionable insights from its retail data. Manavoğlu and Özgeç explained that the company chose SAP HANA as the real-time database that would support the MUDO Insight platform. After making this decision, they met with business units across the company and determined which reports were and were not being used. This helped identify reports that were duplicative or overlapping, which enabled consolidation of similar reports. Based on this information, a core project team of five individuals, including Manavoğlu and Özgeç, began the process of building a draft reporting inventory, which led to the creation of a "*reporting inventory containing all reports to be moved to data warehousing with SAP HANA.*"

In August 2014, the core project team began the process of deploying SAP HANA to support the MUDO Insight platform. According to Manavoğlu and Özgeç, the team required about three months to go live with its "top 10" reports for SAP HANA, focusing primarily on sales, CRM, and inventory-related reports. MUDO carried out this implementation of HANA entirely with in-house resources and applied its own project methodology. By September 2015, the team had completed the initial implementation of SAP HANA for all reports. This implementation was built on SAP data warehousing with SAP HANA, supported by SAP business intelligence tools for additional

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data drilldown capabilities. Manavoğlu and Özgeç further reported that the MUDO Insight platform is being fed by non-SAP source systems and that the retailer has experienced no problems thus far. More recently, MUDO has added enhanced mobile reporting capabilities and C-level dashboards and provided store/staff dashboards.

Manavoğlu and Özgeç noted that MUDO continues to look for new ways to drive value with the MUDO Insight platform and SAP HANA. In particular, they explained that the retailer hopes to make greater use of predictive and customer analytics to unlock even more value from retail data.

Benefits

The MUDO Insight platform running on SAP HANA has transformed the ability of the retailer to generate value with the data it collects, processes, and disseminates for employee use. The speed with which MUDO Insight can create complex and actionable reports gives employees timely and consistent access to insightful data when they need it. As a result, they can more effectively support existing customers, better target new business opportunities, and carry out their responsibilities more efficiently. For MUDO, this is translating to both higher employee productivity and higher sales as a result of limiting customer churn and winning new customers.

Manavoğlu and Özgeç explained that the core value of the MUDO Insight platform running on SAP HANA is much improved reporting capabilities. As a retailer, MUDO relies on data-based insights to engage with existing customers and potential customers. This requires MUDO to leverage huge amounts of data related to its operations, including 75 million sales records covering eight years and 3 billion inventory records. Before implementing SAP HANA, MUDO struggled to provide employees with timely and consistent access to reports that offered concise and actionable insights related to these records.

According to Manavoğlu and Özgeç, SAP HANA's performance has revolutionized how MUDO applies data-driven reporting to fuel its business operations. Reports that took minutes or even hours to run now take seconds, giving employees near-real-time access to the analytical insights they need. Meanwhile, report consolidation has minimized duplicative or less useful reports, ensuring the value of reports generated on the MUDO Insight platform. Manavoğlu commented: *"With the MUDO Insight platform running on SAP HANA, users can get the analysis they require with very few reports, and they can use drilldown capabilities to get the information they need, which helps them better analyze sales data."*

"The bottom line is that SAP HANA is enabling us to unlock the value of retail data that we weren't able to effectively capture before, and we are turning this retail data into sales."

The speed and capabilities of the MUDO Insight platform running on SAP HANA have enabled the retailer to generate more value through data. The ability to generate real-time reports on such huge volumes of data has changed how employees view and use data to do their jobs. Özgeç commented: *"We're now doing things with the MUDO Insight platform and SAP HANA that we couldn't do before because it just took too long. We would sometimes try to run reports that would take three hours and they would time out before completion, and they're now taking seconds."* In addition, the MUDO Insight platform offers self-service analysis and reporting capabilities to users, which not only enables business users but also means that IT and business intelligence team members spend less time supporting them.

Manavoğlu and Özgeç reported that the MUDO Insight platform has changed how employees who rely on data work, and its impact is increasingly being seen in terms of improved business results. With years of sales and transactional data, including conversion ratios, available in near real time, sales team members and store managers not only spend less of their working time sifting through data but also have the data they need to effectively and proactively engage with customers and prospects. According to Manavoğlu, the impact is especially apparent in terms of the ability of team members and store managers to better understand the needs of their customers and to offer personalized campaigns and promotions that can lead to business with first-time customers and repeat business with existing customers. He noted: *"By effectively using eight years of data with SAP HANA, we are able to perform value-added analysis and really know customers and their needs better."* Manavoğlu and Özgeç also cited the ease of delivering new features and functionality on the MUDO Insight platform: *"Because of its lean design with SAP HANA, our development process takes less time, and we can nearly instantly deliver new features or functionality, and we don't need to involve end users in reporting sessions."*

The net result for MUDO is that the MUDO Insight platform running on SAP HANA is a business enabler. Manavoğlu and Özgeç explained that MUDO has reduced its customer churn rate by better applying data to maintain existing customers and is now winning new business through targeted campaigns and promotions. According to Manavoğlu: *"The bottom line is that SAP HANA is enabling us to unlock the value of retail data that we weren't able to effectively capture before, and we are turning this retail data into sales. This is the core value that SAP HANA has brought to MUDO."*

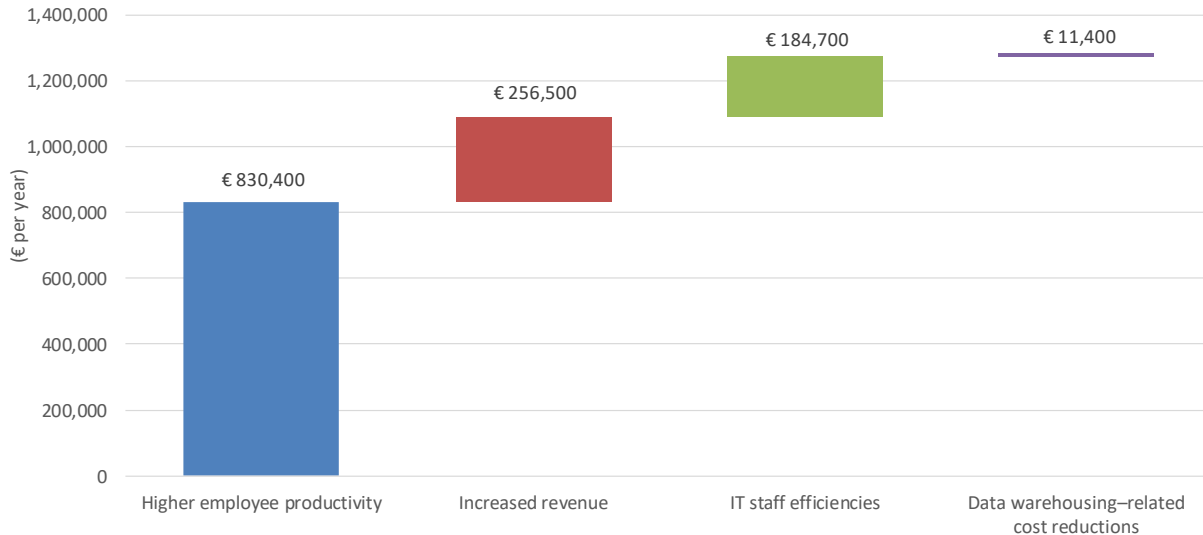
Beyond the operational and business impact of SAP HANA, Manavoğlu and Özgeç also noted that the platform has proven to be cost effective, efficient, and reliable. SAP HANA's compression capabilities have enabled the retailer to reduce the size of its database environment from 2TB to 250GB, lowering costs and enabling more effective administration and management. Meanwhile, SAP HANA has also performed more reliably, reducing the frequency of user-impacting outages from about once a week to several times per year, further enabling real-time analytical data to become a more significant driver of MUDO's business operations.

Quantifying the Benefits

Based on interviews with Manavoğlu and Özgeç, IDC calculated the projected benefits to MUDO of using SAP HANA in terms of higher employee productivity, increased revenue, more efficient IT staff operations, and reduced data warehousing-related costs. IDC projects that these benefits will have an average value of €1.28 million per year over five years (see Figure 1).

FIGURE 1

Average Annual Benefits



Source: IDC, 2017

Higher Employee Productivity

The MUDO Insight platform running on SAP HANA has changed how key groups of employees at MUDO work. At base, it has allowed them to shift substantial amounts of time away from manual tasks related to reporting and instead focus on business-generating activities. According to a survey conducted by MUDO, it has allowed for a 25% reduction in time spent on reporting tasks on average, freeing up substantial time for other activities. In addition, the power, speed, and quality of analytical insights provided through the MUDO Insight platform have enabled key groups of employees to work more productively and efficiently. IDC calculates that in total, MUDO will benefit from higher employee productivity worth an annual average of €830,400 over five years for the following employees:

- **Sales and marketing team.** The MUDO Insight platform gives sales and marketing team members real-time analytics more effectively and efficiently, enabling them to better create and address sales opportunities. IDC puts the average productivity increase for this team of 120 employees at an average of 25%.
- **Store managers.** The MUDO Insight platform has provided store managers at MUDO's retail locations across Turkey with the information they need to effectively plan and carry out customer-facing promotions and campaigns and better manage their inventory. IDC calculates a 10% productivity increase on average for the roughly 120 MUDO store managers.

- **CRM team.** The MUDO Insight platform has enabled the members of MUDO's CRM team to operate much more effectively, tying together disparate pieces of information about their customers. IDC projects that as a result, this team of 10 is 60% more productive.
- **Finance team.** The MUDO Insight platform benefits the finance team of 10 employees by providing consistent and reliable access to sales and inventory data. IDC calculates that as a result, they are 10% more productive on average.

Increased Revenue

The ability to create and carry out effective customer-facing promotions and campaigns based on data from the MUDO Insight platform running on SAP HANA is having a positive impact on MUDO's business. The retailer is not only reducing its churn rate by providing strong incentives for customers to return but also winning new customers through more effective sales efforts across its channels. This has helped it boost its top-line results in the very competitive Turkish retail market and continue to expand its customer base. IDC calculates that MUDO will earn about €1.71 million of additional revenue per year over five years attributable to SAP HANA. For purposes of the financial analysis informing this study's results, IDC applies a 15% operating margin, meaning that it has recognized €256,500 per year of this additional revenue per year for the financial results, including the ROI calculation.

IT Staff Efficiencies

MUDO has benefited from the ease of maintaining, administering, developing, and carrying out business reporting on the SAP HANA platform. IDC projects that MUDO will achieve staff efficiencies worth an average of €184,700 per year over five years in the following areas:

- **Administration and management.** Because MUDO can consolidate its data warehousing environment with SAP HANA, the retailer requires 50% less staff time for day-to-day administration and management.
- **Development.** As a result of the lean design of SAP HANA, MUDO's development process – especially testing – takes less time because new features or functionalities can be delivered almost instantaneously, and end users do not need to be involved in reporting sessions related to development. Thus MUDO's development activities related to data warehousing can be completed in 50% less time, enabling application development productivity gains of 150% with SAP HANA.
- **Business reporting.** MUDO can generate substantially more business reports in much less time with the MUDO Insight platform running on SAP HANA, meaning that less staff time is required to support production of such reports. IDC calculates that these efforts are now 83% more efficient.

Data Warehousing-Related Cost Reductions

Thanks to the compression capabilities of SAP HANA, MUDO has benefited from significantly reducing the size of its data warehousing environment. With SAP HANA, the retailer requires 250GB rather than 2TB, thereby achieving an 88% consolidation. This has enabled MUDO to retire a previous solution and save an average of €11,400 per year over five years.

Return-on-Investment Analysis

IDC projects that MUDO will achieve total discounted benefits worth €4.57 million over five years in higher user productivity, increased revenue, IT staff efficiencies, and data warehousing-related cost reductions compared with a total investment of €0.63 million. For the retailer, this would result in a five-year ROI of 622%, with breakeven on its investment occurring in five months (see Table 1).

TABLE 1

Five-Year ROI Analysis

Benefit (discounted)	€4.57 million
Investment (discounted)	€0.63 million
Net present value (NPV)	€3.94 million
Return on investment (ROI)	622%
Payback period	5 months
Discount rate	12%

Source: IDC, 2017

IDC conducted several interviews with Manavoğlu and Özgeç to understand the impact of SAP HANA on MUDO's operations and business. IDC used these interviews to gather the information needed to quantify the benefits and investment associated with the retailer's use of SAP HANA and created an ROI analysis from the results.

IDC calculates the ROI and payback period in a three-step process:

1. Measure the financial benefits directly resulting from the solution, including higher employee productivity, increased revenue, IT staff efficiencies, and decreased IT infrastructure costs since deployment.
2. Ascertain the total investment.
3. Project the investment and benefit over five years and calculate the ROI and payback period. The ROI is the five-year net present value (NPV) divided by the investment. Payback period (expressed in months) is the time required to pay back the initial investment and establish a positive cash flow. To account for the time value of money, IDC bases the ROI and payback period calculations on a 12% discounted cash flow.

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