

White Paper

Revolutionizing Manufacturing with Knowledge Management

Driving the future of customer service in the automotive sector

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Introduction

After a century of incremental change, two decades of rapid disruption are compelling manufacturing companies today to swiftly adapt in order to evolve into the industrial leaders of the future. Technological advancements, automation and supply chain innovations mean providing an equally cutting-edge and streamlined customer experience to clients and partners.

Today's factories have transformed into true supporters of production excellence, where the importance of processes rivals that of machinery. A projection for 2030 reveals a landscape dominated by automation, with software emerging as the linchpin driving efficiency optimization. This paradigm shift magnifies the importance of delivering meticulous and unwavering customer support within an increasingly intricate product environment.

From addressing intricacies during production and routine maintenance to handling unforeseen equipment glitches on the factory floor, the realm of support is undergoing a profound metamorphosis. This evolution demands an infusion of data-driven insights, intricate diagnostics, and multifaceted collaborations that transcend past paradigms. At the core of this transformative journey lies a specialized knowledge management system, poised to take center stage in your array of customer experience tools. Its orchestration ensures an unmatched level of support for engineers, partners, and above all, manufacturers on a global scale.

Shifting Gears to the Future



Process Optimization



Troubleshooting and Maintenance



Employee Training and Onboarding



Quality Control and Compliance



Supply Chain Management



Innovation and Research

A Seamless Customer Experience

Embracing the Transformative Power of Knowledge Management in Manufacturing

As established business models undergo adaptation, it becomes imperative that the evolving customer experience mirrors these shifts, embracing the enhancements they bring. Within this landscape, knowledge management emerges as a cornerstone, facilitating the delivery of a consistent and seamless customer experience. It becomes the backbone for sustainable scalability and continuous enhancement of customer experience over time. As products evolve in complexity through intricate manufacturing processes and advanced software development, the challenge of providing efficient service only grows more pronounced.

Statistics reveal a telling narrative in the automotive sector of the manufacturing industry: while consumers invest approximately 15 hours in procuring a new vehicle, the commitment surges to over threefold during the tenure of ownership when it comes to servicing needs. This spotlight on Customer Experience (CX) and its associated processes underscores their pivotal role in nurturing customer satisfaction and fostering brand loyalty. USU Knowledge Management emerges as a robust ally, extending its support across the entire value chain, from production to purchase, and guiding drivers through maintenance journeys.

In an era where service was once mechanistic, it has now transformed to encompass complex software intricacies, potential glitches, and the range of support demands they entail. The centralization of support information stands as a transformative practice, empowering automation in the creation, modification, dissemination and optimization of content. This approach facilitates the agile reuse of data without incurring additional effort.

Consider the profound implications in an example of the automotive sector: multiple vehicles may share identical engines and components. Instead of creating individualized support documentation that duplicates data, thereby amplifying maintenance complexity and error probabilities, a smarter approach emerges. By linking and repurposing granular data, comprehensive documentation is ensured, while simultaneously eliminating redundancy and effort duplication.

It is not only an obligation, but also part of our self-image to support customers quickly, effectively and individually in the event of a breakdown. Together with our long-standing technology partner USU, we have succeeded in implementing a knowledge-based system that meets the highest standards.

Daniel Beck, AUDI AG

Agent assistance & integrations

The value of knowledge is only unlocked when it is readily available and deliverable on-demand, in the right context. That's why USU offers off the shelf integrations to your critical infrastructure such as your CRM, case management system and CCaaS solution. This enables more automation and agent assistance while maintaining a complete picture of the customer and issue.

For instance, in the manufacturing sector, resolving most challenges demands a blend of client, product and assistance information. When a new incident is logged in the company's system, the customer's data is created in Salesforce, prompting an automatic analyzation within the knowledge management framework. This provides the agent with a comprehensive overview even before starting to address the concern.



Support in multiple channels from one source

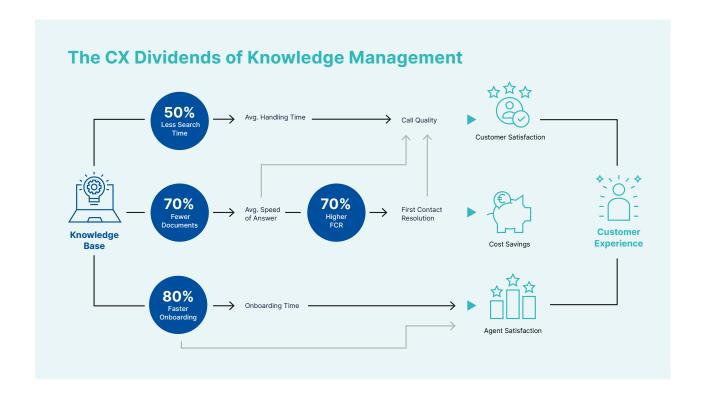
In manufacturing, whether it's engineers, suppliers, distributors or technicians, various challenges can emerge through different channels. Engineers might report issues online, suppliers might seek solutions via

email and technicians might require offline access on-site. USU Knowledge Management ensures that your support information remains consistent across all channels, just a click away.

The cascading impact of KM

The impact of choosing a knowledge management platform designed for customer service extends far beyond consolidating and improving your support data. The efficiency and productivity gains have a cascading impact throughout contact center KPIs such as average handling time and first contact resolution as well as things like onboarding time.

But beyond KPIs and internal metrics, the next generation of car buyers expects instant digital gratification, seamless experiences and up-to-date technology and service. They're used to transitioning between their Apple Watch, AirPods and iPhone without thinking twice or experiencing a hiccup. If the entire experience of car ownership doesn't match their other consumer experiences, many will opt out altogether. Building a modern, proactive customer experience including knowledge management is a big part of the solution.



Case Study: Global Roadside Assistance for the VW Group

How knowledge management helped manufacturers in the automotive industry

The Volkswagen Group, headquartered in Wolfsburg, Germany, is one of the world's leading automakers and the largest carmaker in Europe. More than 670,000 employees around the globe produce vehicles, are involved in vehicle-related services, or work in other business areas. The Volkswagen Group offers its ten brands of vehicles in 153 countries. In the area of customer service, Volkswagen has relied on the expertise and technology of USU for decades.

No matter whether you run out of gas, get a flat tire, the battery is dead, or you have a breakdown or accident, immediate help is just a button push away. From self-service to interactive remote diagnostics and troubleshooting, the mobile service technicians, towing services, or repairs in certified workshops – Volkswagen's mobility services coordinate assistance and deliver the right solutions on-demand, wherever needed.

Using USU Knowledge Management integrated with Salesforce, a ticket is automatically generated, combined with customer data and fed into the

knowledge management system. The data is run through over 3,000 automated decision trees that map out all possible scenarios, taking into account data such as:

- → Vehicle make and model and year
- → Error code
- → GPS location
- → And more...

With the customer, vehicle and error data, the system can find a solution in seconds, or provide additional questions for the agent to ask if required. Before the service agent even picks up the phone, they have a complete view of the customer, car and problem, not to mention the solution. Compared to repeating yourself several times in the typical customer service style, VW's customers are greeted by an agent who is already aware of the situation, all the details and the solution. VW's global roadside assistance program promotes their company image and increases customer loyalty with quality-assured individual solutions.

How USU supports VW's Global Roadside Assistance Program Car data sent to Salesforce salesforce CRM & ticket Customer + car data sent created to USU KM & solution delivered via automated decision tree Driver presses roadside assistance button Agent opens ticket. answer already there 000 Customer receives solution

Decision Trees for Troubleshooting & Customer Service

Managing complexity is one of the most basic yet ongoing challenges of customer service, particularly in today's manufacturing industry with increasingly intricate production systems.

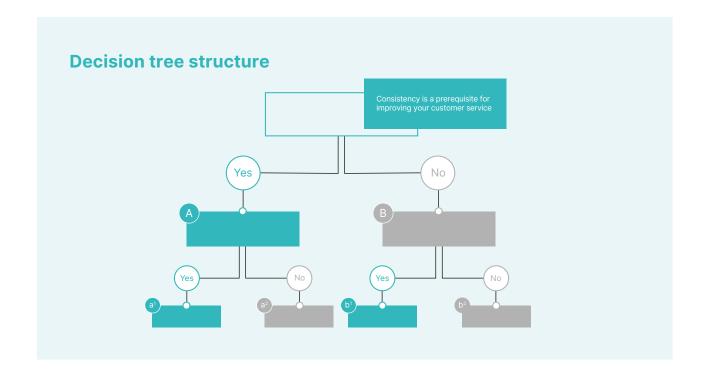
Decision trees offer a solution by breaking down intricate processes into simple, interactive steps. They reduce the need for agents to memorize vast amounts of information. With diverse manufacturing processes, equipment and potential issues, no single agent can be

an expert in all areas. Decision trees step in, modeling various scenarios and connecting them to support data. This empowers anyone to follow an accessible, step-by-step troubleshooting process.

What are decision trees

Decision trees are support tools that use a flowchart or tree-like model to visualize service and contact center processes. Since customer service is a form of personal troubleshooting with a customer, it is ideally suited to creating step-by-step guides for resolving issues.

Decision trees depict this in the form of a question node that then branches off into paths for yes and no answers based-on customer input. This simple logic becomes a powerful took that can be used in multiple service processes.



By building decision trees, agents are actively guided through service inquiries step by step. This ensures:

- → Consistent performance in your contact center
- → No questions skipped or forgotten
- → Increased FCR & fewer call transfers
- → Higher agent satisfaction

Guided dialogues are the agent-facing side of a decision tree. Instead of the chart view with nodes and branches, the agent clicks through a simple text and

image-based dialogue. They are widely used for technical troubleshooting, for example trying to solve an issue with Microsoft Windows. In the customer service world, it can be used for call scripting, step-by-step instructions or process manuals to replace long text-based documents.

In manufacturing, guided dialogues are like user-friendly maps for agents. Instead of complex charts, agents follow a simple text and image-based path. These guides prove handy in technical problem-solving, such as a machinery glitch. It's like having a manual for both agents and customers.





Using decision trees across multiple channels

Creating decision trees within your KM solution does not only benefits agents on the phone but can be directly reused in other channels. Every decision tree you create can be deployed in additional channels both agent and customer facing. These include:

- → Chatbots
- Voice assistants such as Alexa and Siri
- → Self-service
- → Onboarding and training employees
- → Offline for field technicians on site

This reduces the editorial effort both creating and managing content and ensures consistency independent of where and how your users seek help.



Selected Use Cases

The manufacturing industry is broad, each sector having its own individual needs as they relate to knowledge management and providing service to engineers, suppliers and customers.

Combined with intelligent integrations, KM streamlines data from machinery specs, maintenance records, and client details for a complete overview. This ensures swift and precise assistance whether online, email, chat, customer hotline or on-site. Check out this list of KM use cases that highlight its diverse business benefits.



01 | Suppliers

- Easily support and share data directly with suppliers
- Market based approvals to ensure content is accurate and approved for each specific market with its relevant regulations



02 Dealers

- Decision trees and chatbots help customers quickly narrow down their manufacturing needs in a few clicks
- Manage and deliver accurate information to digitally support the purchasing experience



03 End-Customers

- Personalized omnichannel service 24/7
- Access support on their mobile devices



04 | Mechanical Engineers

- Automated decision trees for troubleshooting error codes which provide concrete next steps to take and/or the solution
- Offline knowledge base for full access even without internet access

How USU Knowledge Management Can Help You

Headquartered outside Stuttgart, Germany, the home to global heavyweights like TRUMPF and Porsche, USU has delivered knowledge management solutions to the manufacturing industry for over two decades.

We're proud to count the leading manufacturers around the globe as our customers, including TRUMPF, Porsche, Volkswagen, Endress + Hauser, Karl Storz and more.











Endress + Hauser





USU Knowledge Management was designed from the start specifically for service use cases, i.e., providing customers, employees or suppliers the information they need, in the channel of their choice, from a single source of truth. That's why it powers some of the biggest manufacturing companies on the planet.

Consolidating multiple locations into a single source for all support information enables you to build the

groundwork for scalable growth. That means delivering information to multiple channels from a single source with no duplicate or triplicate maintenance and consistent, up-to-date answers in every channel because they all come from the same place. It also allows you to build transparent, structured, and automated editorial processes to ensure information is created, approved, delivered, and optimized every time, and nothing falls through the cracks.

Additional Benefits of USU Knowledge Management



Shorter handling times



Increased first contact resolution rate



Lower service costs



Faster, consistent service across all channels



Reduced training time & costs



Higher productivity

