



INSIGHTS

EQUIPMENT AS-A-SERVICE

ADDING VALUE ALONG THE SUPPLY CHAIN

In complex and dynamic market environments industrial equipment companies experience reluctance in customer purchase behavior.

Equipment as-a-Service (EaaS) models provide an innovative solution to this challenge. Our paper explores which models exist and what is required to capture the possible value they can provide.

CHALLENGING TIMES

These days, many industries face complex and dynamic market environments, resulting from more and more crises in shorter intervals. Especially in the industrial and manufacturing sector, which is closely connected to the macroeconomic climate, **two main driving forces** can be identified.



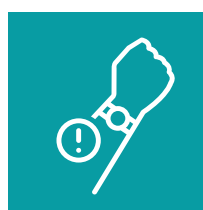
MAIN CHALLENGES

First, **uncertainty** is becoming the “new normal”. Ongoing supply chain shortages, recession fears, and geopolitical conflicts are leading to an increase in volatile market conditions. As a result, original equipment manufacturers (OEMs) experience intensified fluctuations in demand. Therefore, OEMs struggle with accurately forecasting sales, leaving them with the question of how to address declining sales, rising customer demand for flexibility and ways to mitigate risk.

Second, customers are facing **increasing cost pressure** from rising energy costs and a shift from central banks to a policy of high interest rates. Consequently, investment activities in costly machinery and equipment are associated with elevated risk.



**DEMAND
FLUCTUATIONS**



**INVESTMENT
DELAYS**

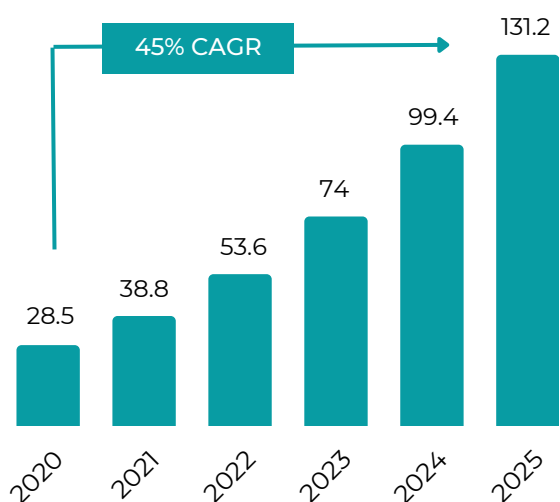


**SALES
REDUCTIONS**

These circumstances offer potential for **innovative business models** that enable risk sharing and make costs more predictable.

EQUIPMENT AS-A-SERVICE MODELS

■ Market volume EaaS in bn*



Equipment as-a-Service (EaaS) models provide an innovative solution for the **machinery and plant industry** to address these challenges and make the **equipment purchasing and operating process more beneficial** for all involved parties. Hence, EaaS shows significant market potential for OEMs to differentiate themselves in an increasingly competitive and commoditized market.

In general, EaaS models can be grouped in three different categories:
Home heating system used as example for equipment

PAY-PER-TIME



Pay per heating period

The customer pays a fixed fee to use the equipment for a fixed period (e.g. leasing).

In our home heating system example this would mean fixed monthly payments, even if the heating system is not used.

PAY-PER-USE



Pay per hour heating

The customer pays for the amount the equipment is being used (e.g., days, hours, minutes).

In our home heating system example this would mean variable payments according to time the heating system is operating.

PAY-PER-OUTPUT



Pay per room temperature

The customer pays for the number of produced units or achieved output KPIs.

In our home heating system example this would mean variable payment according to degrees of room temperature achieved and kept.

EQUIPMENT AS-A-SERVICE BUILDING BLOCKS

EaaS offerings typically consist of three relevant building blocks - the maintained equipment, the financing, and the risk coverage. To ensure a mutually beneficial partnerships for all involved players, each one must be perfectly aware of his role and responsibilities in the agreement.

MAINTAINED EQUIPMENT



Instead of selling the equipment directly to the end customer, the OEM closes a sales contract with the financing partner. With the **pay-per-output model**, the customer gets charged variable fees, while the OEM maintains the equipment to enable a high level of production output. These fees include the whole range of services required to use the equipment and to carry out necessary maintenance. To enable such an output-based pricing model, the OEM must have the equipment linked to an industrial IoT platform to provide real-time insights into machine performance and health. With this, the OEM also creates the required transparency for the financing and insurance partners to design equipment-specific programs.

FINANCING

The financier is the sole owner of the asset. He buys the equipment from the OEM and enables customer benefits by taking on the shared **risk of production volume variability**. Financiers benefit from increased volume of financing contracts and gaining access to new industries and further banking business from industrial partners. With the increasing popularity of EaaS over the past years, financial institutions face the risk of diminishing revenue from traditional asset financing.



RISK COVERAGE



The insurer covers a wide range of risks that can be distinguished into two categories. First, **insurance until installation**, which includes transportation risks and construction risks. Second, **hazards during the contract lifetime**, which include, business interruption risks and asset damage risks. The insurer plays a crucial role in the model securing the asset and providing the necessary insurances to enable the financier and OEM to partake in the EaaS offering.



EaaS

ADVANTAGES

If all three parties fulfil their responsibilities and the EaaS model is implemented successfully, many advantages over the traditional one-time equipment purchase become evident. Here, the OEM benefits in several ways.

First, the OEM can receive **recurring revenue** through the whole lifecycle of its equipment, by offering new or value-added services and continuously maintaining the equipment. Furthermore, the OEM can establish a **deeper relationship** with its customers as services create more customer touchpoints over the equipment's lifespan.

Third, the collection and analysis of data through the IoT platform enables **data-driven improvements** in equipment design and performance. As the manufacturer has insights into machine usage and health data, he can derive optimization potentials for new product development.

Second, the manufacturer can expand his target group of customers. EaaS offerings **decrease investment barriers for customers** through higher flexibility, opening a new potential for customer acquisition.

For the customer, EaaS models deliver substantial financial benefits. Instead of high upfront investments (CAPEX) for equipment purchases, pay-per-output costs are categorized as operating expenses (OPEX). This **increases the predictability of future cash flow streams** and ultimately makes companies more resilient to crises. Besides the financial aspects, customers benefit from risk mitigation and improved service.

With EaaS as a service-oriented business model, the customer can **focus purely on the performance** of his core business. At the same time, the responsibility for asset operations lies with the OEM. Consequently, customers enjoy elevated levels of service since the OEM has a strong incentive to ensure equipment uptime, maintenance, and reliability.

EaaS REQUIRES NEW ORGANIZATIONAL CAPABILITIES

The implementation phase is crucial to achieving the strategic and financial goals of a EaaS offering. Multiple challenges exist for the effective implementation and scaling. OEMs are required to **develop new capabilities** in the service, maintenance, and IT to deliver the EaaS service package successfully. Another challenging factor is **managing the network of partnerships and customers**. OEMs need structured ways to identify suitable partners for their EaaS model.



As EaaS requires a robust relationship with customers and partners, manufacturers should align their organization with their value network to aim for efficiency gains. From an R&D perspective, manufacturers face the challenge of **anticipating potential causes of product failure**. With equipment uptime being one of the critical success factors for EaaS providers, manufacturers are pressured to develop their product pipeline and **drive innovation** continuously. Furthermore, the role of data should move into the core value proposition of a manufacturer. OEMs need digital capabilities to **translate data into value** and enhance their customers' operational efficiency. Here, the ability to ensure real-time machine data availability and reliability, as well as security is crucial. Lastly, selling and marketing an EaaS offering is a key challenge for OEMs. Manufacturing companies must **effectively communicate** their value proposition compared to competitors' offerings. Therefore, sales teams need the necessary skills to be able to present the offering benefits to the customers. As a prerequisite, OEMs need to establish a trustful relationship with their customers.

As EaaS models **gather momentum in the manufacturing industry**, it becomes evident that most organizations require significant transformations of the entire business model to deliver the real value promise. Especially digital capabilities such as process digitalization and interoperable IoT solutions will become a focal point. OEMs trying to capitalize on this opportunity should act fast, but executives in manufacturing companies must first carefully understand their current status and ambitions.

With our extensive knowledge of EaaS business models in the manufacturing equipment sector, we at Vindelici Advisors can support you in transforming into a service-oriented business model with an output-based pricing structure. By leveraging our international network of partners, we provide the necessary building blocks for an EaaS solution, using a collaborative approach tailored to your business needs with an expert-led implementation.

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