Business Model Case Study Description

Siemens – Gas turbines

Company: Siemens Industrial Turbomachinery AB
Locations: Sweden
Type: Original equipment manufacturer
In reman: Since 61 years
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Product
Gas turbines

Core Sourcing
Cores are retrieved from customers (i.e. turbine users), and cores with the same quality (or the same entities) are returned to the customers after overhaul/repair. The overhaul/repair is often a planned activity (e.g. after a predefined length of operation).

Business Model
Siemens Industrial Turbomachinery AB carries out overhaul and repair of gas turbines for its customers (i.e. users) by using new, repaired or refurbished parts in sectors such as power generation and oil & gas, contributing to extending the lifetime of existing equipment. Overhaul options focus on operational demands through in-situ or factory-based overhauls, and/or by service exchange or leased engines (for the duration of the overhaul period). For its customers, the cost (lowest cost of ownership) is a major driver to pay for this service. Siemens overhaul and repairs, which can also incorporate modernizations and upgrades in certain cases, are designed to help customers realize optimal operational performance from their assets, by providing the turbines with a long lifetime, such as 20 years.

The company's key resources are its product knowledge and facility. In particular, the company utilizes its OEM (Original Equipment Manufacturer) knowledge of operating parameters (ambient conditions, operating mode, operated fuel, etc.) and of component design, manufacturing parameters and tolerances. In addition, fact-finding in close cooperation with the Siemens design department is a strong asset. Regarding the facility, Siemens uses a global network of company-approved workshops to meet exacting quality and safety standards and guarantee the performance of its engines. Furthermore, guaranteed OEM parts for the turbines and access to the latest OEM-proven technology for extended economic viability of the asset are also important.

The process includes transport of the core (if needed), inspection, refurbishment, reassembly, test, transport (if needed), commission, and test.

Economic Benefits
For customers, lower costs and extended lifecycles are important benefits as overhauls provide customers with the latest OEM proven technology for extended economic viability of their asset. For Siemens, increased product knowledge obtained during overhaul/repair operations, and through the ongoing collection and analysis of fleet data, affords Siemens an opportunity to apply that knowledge to new turbine design and new service concepts.

Environmental Benefits
On-site overhaul/repair is acknowledged to reduce the environmental impacts from logistics and overhauls provide technology improvements that can result in lower emissions.

Social Benefits – Jobs, Upscaling, etc.
From the job viewpoint, working on overhaul/repair could be seen as a good component for his/her career.

Advanced Materials Recovery
Advanced materials, such as low-maintenance materials, high-temperature resistance materials, super alloys, and coated materials, are recovered.