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United Technologies Corporation: Pratt and Whitney Analysis

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Emily LeClerc
BUS4402: Strategic Analysis & Decision Making, Professor Robert Miller

Current Overall Strategy
The Collaboration Strategy
This strategy distributes costs, risks, and sales across third party companies. This helps negate some of the risks associated with the PESTEL categories outlined below.

Mission
To be a world leader in design, manufacture, and service of aircraft engines and auxiliary power units for commercial and military aircrafts.

Market Segment
Pratt and Whitney is the leading global supplier in the business jet, military, commercial and general aviation market. They primarily produce and develop “families of large engines for wide- and narrow-body and large regional aircraft in the commercial market and for fighter, bomber, tanker, and transport aircraft in the military market” (UTC Annual Report, pg. 4).

PESTEL ANALYSIS
Political
1. State of the defense industry
2. Global/National Political Climates
3. Defense Spending
4. Foreign Policy
5. Active Military Flights
6. Deficit Reduction Efforts
7. Gov’t Power Struggles

Economic
1. Economic Growth
2. Economic Depressions
3. Vacation Rates

Social
1. Aircraft demand
2. Predicted Air Traffic
3. Fuel Price
4. Airline Profits
5. Labor Issues
6. Skills Gap
7. Consolidation
8. Bankruptcies
9. Safety Concerns
10. Health Concerns
11. Terror Attacks
12. Natural Disasters

Technological
1. Retirement of Legacy Engines
2. Technological Improvements
3. Development Timeframe

Environmental
1. PurePower Engines
2. U.S. Environmental Laws
3. Clean Air and Water Acts
4. Noise Pollution

Legal
1. Gov’t Commercial Contracts
2. Fixed-Price Contracts
3. International Laws
4. Environmental Laws

Five Forces Analysis
Enters
1. Cost impendiment
2. Technology is too advanced
3. Legal barriers
4. Patents/IP

Rivals
1. Honeywell Aerospace
2. GE Aviation

Buyers
1. Government and Airlines

Substitutes
1. Actuation/Air/Thermal MGT
2. Turbofan/Prop/shaft
3. True Choice
4. Combat/Rotorcraft Planes
5. Tanker/Transport Vehicles

Resources and Capabilities

Tangible
Intangible

People and Assets

Cost Leadership through Operational Efficiency Lower engine prices to acquire sales
Product Differentiation
PurePower engine provides a lower fuel, lower noise option for airlines with high fuel costs
Internal diversification
Related commercial and military product lines

VRIO Method
1. Determine the resources and capabilities
2. Categorize as:
   a. People & Assets or Systems & Processes
   b. Tangible vs. Intangible
3. Assess according to the criteria of being:
   a. Valuable
   b. Rare
   c. Inimitable
   d. Organization to exploit (VRIO)

Strengths
1. Aircraft Engine Certification and Designs
2. Backwards integration into suppliers
3. Collaboration on producing and supplying the Government with certain engines
4. Efficient Shop Floor Layout
5. International Locations
6. Order Backlog ($64.3 Million)
7. Patents and Intellectual Property
8. PurePower C series Contract

Weaknesses
1. Prior analyses: Gov’t Defense Contracts due to lower amounts awarded to Pratt & Whitney vs rivals.

New data:
Pratt and Whitney has shrunk up this weakness. They are the current #6 company awarded Gov’t Defense Contracts.

They trail behind:

Opportunities
1. Government contracts
   The total amount generated for UTC from government contracts in 2016 was $6,909M, 1.47% of the defense budget for the year.

2. Increased defense spending
   The 2018 defense budget prefetches an anticipated increase in the allocation to UTC.

3. Order Backlog
   This indicates future revenues as the order has been received.

Threats
1. Innovation by competitors
2. Legal challenges across countries
   Different safety, work, & production requirements.
3. Economic downturns
4. Long development process
   Rivals innovation during this process may negate the need for new product or innovation.

5. Delivery scheduled multiple years out
   Changes in the economy could result in cancelled orders and a loss in revenue

Implementation Strategies

Innovation Leadership
Vertical assembly line increasing production capabilities which ties to patient innovation

Patent Innovation
Accumulating assets and resources over time for utilization in innovation efforts

Vertical Integration/Outsourcing
Employee integration into suppliers to troubleshoot production problems and ensure part quality

Strategic Alliances
IAE, EA, etc. alliances between aerospace and defense corporations

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