**SWOT ANALYSIS**

**PROJECT TITLES:** AUTOMOTIVE VEHICLES ENGINE HEALTH PREDICTION

**GROUP MEMBERS:**

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| SWOT ANALYSIS |  | Critical Enablers | Critical Inhibitors |
| Internal Factors | Strengths   * Early detection of issues: able to detect potential engine problems and reduce risk of major breakdowns. * Data accuracy: enable precise diagnostics. * Cost savings: can lead to cost savings by avoiding unexpected repairs and reducing downtime. | Weakness   * Initial cost: might involve significant upfront cost for integrating advanced sensors and analytics to vehicles. * Dependency on technology: heavily relies on technological components. * Data security concern: potential concerns occur with collection and transmission of sensitive vehicle data. |
| External Factors | Opportunities   * Market demand: increasing demand for smart and connected vehicles provides an opportunity for the widespread adoption of this system. * Collaboration with original equipment manufacturers (OEMs): lead to the integration of the system as a standard feature in new vehicles. * Data analytics advancements: enhance accuracy and predictive capabilities of this system. | Threats   * Competitive landscape: market may become saturated with various engine health prediction solutions. * Regulatory compliance: stricter regulations related to data privacy and automotive safety may pose challenges for the implementation and operation of such systems. * Cybersecurity Risks: as vehicles become more connected, there is an increased risk of cyber-attacks on the systems, potentially compromising the safety and privacy of vehicle users. |