Operational Risk Assessment and Ethical Evaluation of Ferrari N.V. A Basel II and CFA Code Framework

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Abstract

This report examines the operational risk profile and ethical governance of Ferrari N.V. (RACE), a globally recognized luxury sports car manufacturer within the Consumer Discretionary sector. The analysis draws on the Basel II operational risk framework and the CFA Institute's Code of Ethics to evaluate the company's exposure to key risks such as cybersecurity threats, supply chain disruptions, regulatory pressures regarding emissions and electrification, and reputational challenges linked to its Formula 1 operations.

Ferrari's environmental, social, and governance (ESG) initiatives—including its goal of carbon neutrality by 2030—are also assessed. While the company benefits from strong internal controls and ethical programs, areas for improvement include environmental disclosure, ESG verification, and public transparency. The report concludes that continued investment in ethical governance and operational resilience will be essential to protecting Ferrari's brand and ensuring its long-term success.

Keywords: Ferrari N.V., Consumer Discretionary Sector, Operational Risk, Basel II, ESG, Ethics, Risk Management, Supply Chain, Cybersecurity, Climate Risk, Brand Reputation, Corporate Governance, CFA Code of Ethics, Automotive Industry

Ferrari At a Glance (2025)	
Headquarters	Maranello, Italy
Revenue	€6.88 billion
Vehicles Delivered	13,663
Employees	~5,000
F1 Legacy	16 Constructors' Titles
Return Buyer Rate	81%

1. Introduction

Ferrari N.V. operates within the Consumer Discretionary sector as one of the most exclusive and profitable brands in the global automotive market. Known for producing ultra-luxury, high-performance vehicles, Ferrari has built its reputation on exceptional craftsmanship, limited production volumes, and a deep connection to Formula 1 racing. In 2024, the company sold over 13,600 vehicles, with more than 80% purchased by returning clients. Its core operations span car production, motorsport participation, brand licensing, and financial services. With headquarters in Maranello, Italy, Ferrari is listed on the NYSE and has a broad global presence. Despite its strong financial and brand performance, Ferrari operates in an environment characterized by high operational complexity, strategic risk exposure, and elevated ethical expectations. The company faces intense regulatory scrutiny, particularly regarding carbon emissions and vehicle electrification mandates in the EU and US. Additionally, its global supply chain and reliance on specialized components create logistical vulnerabilities. At the same time, its brand reputation makes it uniquely exposed to reputational risks, particularly from controversies in Formula 1 or weaknesses in ESG practices. This report analyses Ferrari's operational risks using the Basel II framework, which categorizes operational risks into business disruption, compliance, employment practices, and other defined areas. Ethical evaluation is conducted using the CFA Institute's Code of Ethics, focusing on key standards such as integrity, transparency, fairness, due diligence, and loyalty. The goal is to assess not only Ferrari's risk exposure but also the strength of its internal controls, ethical policies, and stakeholder accountability mechanisms.

2. Ferrari's Key Operational Risks – Basel II Classification

The following table and discussion outline the most significant operational risks currently facing Ferrari N.V., mapped to the appropriate Basel II operational risk categories. These risks stem from Ferrari's reliance on a premium brand image, high-performance engineering, global supply chains, and regulatory compliance in both automotive manufacturing and motorsport.

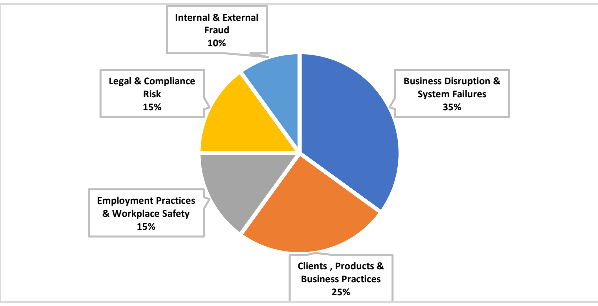
Risk	Basel II Risk Category
Cybersecurity vulnerability	Business Disruption & System Failures
Regulatory pressure (e.g., emissions)	Clients, Products, & Business Practices
F1 ethics incident (FIA settlement case)	Legal & Compliance Risk (subset of Basel II)
Supply chain shocks (COVID, semiconductors)	Business Disruption

These risks are heightened by Ferrari's dependency on global operations, reputation-sensitive branding, and increasing ESG expectations. Effective mitigation relies on ethical conduct, sound controls, and transparent stakeholder engagement.

3. Ethical Focus

Ferrari's risk profile is closely linked to its ethical responsibilities. As a publicly listed company operating in an elite and reputation-driven industry, ethical conduct plays a pivotal role in sustaining stakeholder trust, customer loyalty, and investor confidence. Using the CFA Institute's Code of Ethics and Standards of Professional Conduct as a framework, this section evaluates Ferrari's alignment with five key ethical principles. The principle of integrity and transparency was notably challenged during Ferrari's confidential settlement with the FIA over alleged violations of Formula 1 engine fuel flow regulations in 2020. While no wrongdoing was publicly confirmed, Ferrari's lack of disclosure drew criticism from teams like Red Bull and Mercedes. The absence of clarity raised doubts about Ferrari's commitment to openness and ethical communication. Fair dealing is another concern in Ferrari's customer allocation system. With 81% of vehicles sold in 2024 going to returning customers, new buyers often find it difficult to access limited edition models. Without published criteria for vehicle distribution, this exclusivity, although part of the brand's identity, may be perceived as discriminatory or opaque. Conversely, Ferrari exhibits strong diligence in its supplier and partner relationships. The company implements third-party compliance screenings based on the Corruption Perception Index (CPI) and imposes contractual requirements regarding labor rights, sustainability, and anti-corruption standards. This shows clear alignment with the CFA principle of risk-informed ethical due diligence. However, disclosure and ESG transparency remain areas for improvement. Although Ferrari publishes an annual sustainability report, it currently lacks Scope 3 emissions data and independent third-party verification—both critical to credibility and stakeholder assurance. Expanding these disclosures would support alignment with international ESG standards and bolster trust among regulators and investors. Finally, Ferrari's performance on loyalty to employees and internal governance is a clear strength. During the COVID-19 crisis, the company launched the "Back on Track" initiative, offering employee blood testing, mental health resources, and executive salary contributions to pandemic relief. Combined with a comprehensive Human Rights Practice and inclusive workplace policies, these actions demonstrate Ferrari's internal ethical commitment.

Operational Risk Breakdown by Sub-Type



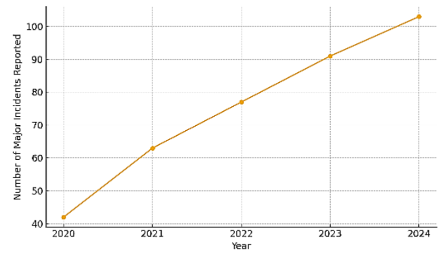
4. Operational Risk Analysis

Ferrari N.V. operates in a complex and high-risk environment shaped by global supply chains, high customer expectations, brand exclusivity, and increasing regulatory demands. The following section identifies and explains four major operational risks facing Ferrari, categorized according to the Basel II operational risk framework. Each risk is evaluated based on its origin, impact, ethical implications, and Ferrari's response strategy.

4.1 Cybersecurity and Digital Risk

Basel II Category: *Business Disruption & System Failures*

As Ferrari continues its shift toward digitalization—including connected car platforms, customer portals, and real-time F1 data systems—it becomes increasingly exposed to cybersecurity risks. A successful cyberattack could result in operational shutdowns, intellectual property (IP) theft, leakage of sensitive customer data, or compromised F1 race telemetry. In its 2024 annual report, Ferrari acknowledged cybersecurity threats as a material risk, citing the need to continuously invest in digital infrastructure and resilience. To mitigate this, Ferrari has launched its new "e-building" for hybrid and electric vehicle assembly, which includes robust IT and system controls. The company also performs regular internal IT audits and aligns its policies with international best practices. However, cyber threats continue to evolve rapidly, and a successful attack could cause substantial damage to brand trust and operational continuity. Impact: Customer data loss, system outages, operational delays, legal liability under data protection laws.



Rising Cybersecurity Incidents in the Automotive Industry (2020–2024).

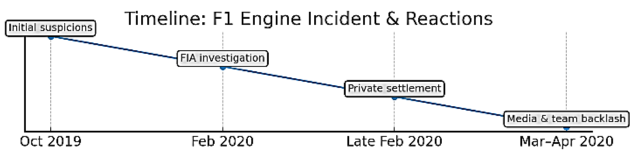
Data shows a growing trend in attacks on vehicle software, suppliers, and R&D systems, reinforcing Ferrari's exposure to Business Disruption & System Failure risk.

Note: Data represents industry-wide estimates based on Upstream Security, IBM, and McKinsey reports. Actual counts may vary based on reporting standards.

4.2 Reputational Risk – F1 Engine Settlement

Basel II Category: *Clients, Products, and Business Practices*
Ethical Implication: *CFA Code – Integrity, Disclosure, Fair Dealing*

In 2020, Ferrari faced a reputational challenge following an FIA investigation into its Formula 1 engine. The allegation was that Ferrari had engineered a workaround to exceed permitted fuel flow limits. While the FIA later issued a statement confirming a "settlement" had been reached, no details were made public. Rival teams (e.g., Red Bull and Mercedes) criticized the lack of transparency. This incident raised questions around Ferrari's adherence to ethical principles such as integrity, fair competition, and full disclosure—core values in the CFA Institute Code of Ethics. Though Ferrari was not formally penalized, the absence of an open resolution undermined stakeholder trust and illustrates the reputational fragility of brands competing at the elite level of motorsport. Impact: Erosion of trust with fans, sponsors, and investors; negative media coverage; ethical scrutiny.



4.3 Supply Chain and Production Disruption

Basel II Category: *Business Disruption & System Failures*

Ferrari's reliance on highly specialized parts—such as semiconductors, hybrid system components, and lightweight metals—exposes it to supply chain volatility. During the COVID-19 pandemic, Ferrari temporarily shut down its Maranello and Modena plants due to supply interruptions and health safety measures. Similar disruptions occurred during the global chip shortage, with Ferrari acknowledging "logistical delays" in its 2021–2022 filings. In response, Ferrari implemented its "Back on Track" program, including factory redesigns, employee testing, and revised supplier timelines. The company is also engaging in selective supplier diversification, though many components remain difficult to source globally. Impact: Delayed production, lost sales, customer dissatisfaction, financial impact due to idle capacity.

Ferrari Plant Shutdowns & Recovery Flow Chart (2020–2021)

This timeline illustrates Ferrari's operational shutdowns during the COVID-19 crisis and subsequent supply chain challenges, including semiconductor shortages. These disruptions directly link to Business Disruption risk under the Basel II framework.

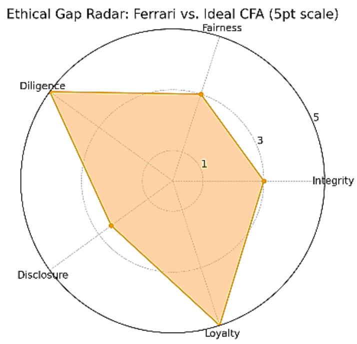
4.4 Labor & Workplace Practices

Basel II Category: ***Employment Practices & Workplace Safety***
Ethical Implication: ***CFA Code – Fair Dealing, Loyalty, Respect for Rights***

Ferrari has implemented a strong Human Rights Practice aligned with ILO, UN, and EU frameworks. It prohibits child labor, discrimination, and harassment, and promotes fair wages, employee well-being, and diversity. However, the company's factories in Italy fall under collective labor agreements, making Ferrari vulnerable to industrial actions or reputational damage from workplace incidents. Ferrari's public commitments are supported by internal codes and third-party monitoring, yet increased investor scrutiny around "S" (Social) performance metrics means that even isolated failures in contractor labor conditions or harassment claims could have a reputational cost. Impact: Legal liabilities, workforce dissatisfaction, reputational risk, and loss of investor confidence in ESG commitments. These initiatives support Sustainable Development Goal 8 (Decent Work and Economic Growth), which encourages inclusive, safe, and fair working conditions for all employees.

5. Ethical Evaluation Using CFA Framework

Ferrari N.V.'s operational activities and public conduct can be critically examined through the lens of the CFA Institute's Code of Ethics and Standards of Professional Conduct. These ethical standards emphasize principles such as integrity, transparency, diligence, fairness, and loyalty—each of which is relevant to Ferrari's risk environment, stakeholder relationships, and brand identity.



5.1 Integrity and Transparency

Ferrari's handling of the 2020 Formula 1 engine investigation by the FIA raised significant ethical questions. While no penalties were imposed, the settlement's private nature and lack of disclosure conflicted with principles of transparency and accountability. The absence of a clear public explanation created reputational doubt and illustrated a shortfall in Ferrari's commitment to open communication. This case demonstrates a need for greater ethical leadership, particularly regarding high-visibility controversies.

5.2 Fair Dealing

Ferrari's sales model prioritizes exclusivity—81% of its vehicles in 2024 were sold to returning clients. While this strategy reinforces brand value and customer loyalty, it may unintentionally disadvantage first-time buyers and raise questions about access and fairness. In a CFA context, the principle of fair dealing suggests that client treatment should be equitable and transparent. Ferrari could address this by publicly clarifying how allocations are managed and ensuring ethical consistency in client relations.

5.3 Diligence and Due Process

Ferrari shows strength in applying due diligence, especially in managing third-party risks. Its compliance frameworks require ethics-based screening for suppliers, dealers, and intermediaries using corruption perception index (CPI)-linked evaluations. This aligns well with CFA principles related to risk awareness, due process, and ethical partnership management. The company's structured approach reflects a clear understanding of operational risk and ethical exposure at the supply chain level.

5.4 Disclosure and ESG Communication

While Ferrari publishes sustainability reports and ESG targets—such as its commitment to carbon neutrality by 2030—its environmental data lacks granularity in some areas, and there is limited third-party assurance or scope 3 emissions tracking. Effective ethical disclosure, as defined by the CFA Code, involves presenting clear, complete, and independently validated information to stakeholders. Ferrari has an opportunity to strengthen its ESG transparency and enhance credibility through verified reporting. This aligns with the United Nations Sustainable Development Goal 12 (Responsible Consumption and Production), which promotes sustainable business practices and transparent reporting on environmental impact.

5.5 Loyalty and Employee Commitment

Ferrari's internal policies reflect a strong ethical culture toward employees. The company's "Back on Track" COVID-19 recovery program included blood testing, psychological support, and salary donations from executives. Additionally, its Code of Conduct and Human Rights Practice promote a safe, inclusive, and fair workplace. These actions align well with the CFA standard on loyalty to the employer and responsible internal governance.

6. Mitigation Strategies & Recommendations

As a premium automotive brand operating at the intersection of technology, luxury, and motorsport, Ferrari faces a unique set of operational risks. While the company has implemented robust controls, ongoing evolution in risk governance and ethical transparency is essential to maintain stakeholder trust and brand integrity. This section outlines Ferrari's current mitigation strategies and proposes targeted recommendations aligned with best practices in ethics, compliance, and operational risk management.

6.1 Existing Risk Controls

Ferrari has made substantial efforts to address its operational and ethical risks through structured internal policies and external-facing programs:

- Compliance Programs: The company has implemented a suite of policies on anti-corruption, antitrust compliance, and third-party due diligence. These frameworks are supported by risk-based vetting and mandatory ethical clauses in contracts with external partners.
- Sustainability Plan: Ferrari has committed to achieving carbon neutrality by 2030, supported by investments in electrification (including its new e-building), lifecycle emissions reduction, and circular economy practices.
- Health and Crisis Protocols: During the COVID-19 pandemic, Ferrari launched its "Back on Track" initiative—offering virus testing, psychological support, and workplace redesigns. These measures helped Ferrari resume production safely and responsibly.
- Corporate Governance Oversight: Ferrari holds a strong ISS Governance Quality Score of 2, indicating low governance risk overall. However, its Shareholder Rights score is 5, suggesting room for improvement in areas such as transparency and investor engagement.

6.2 Strategic Recommendations

To strengthen its operational resilience and ethical credibility, Ferrari should consider the following actionable enhancements:

- Transparency in Regulatory Investigations: Following the FIA engine case, Ferrari should adopt a policy of disclosing outcomes of similar investigations. While proprietary data may remain protected, summarizing resolutions would align with the CFA principles of disclosure and integrity, and reinforce stakeholder trust.
- Clarify Client Allocation Fairness: Given the brand's elite sales model, Ferrari should publish transparent guidelines on how new customers are selected. This would help balance exclusivity with fairness and mitigate perceptions of favoritism—supporting the CFA standard of fair dealing.
- Strengthen Supply Chain ESG Audits: Ferrari's third-party compliance policy is strong, but publicizing the frequency, scope, and findings of ESG audits would improve its supply chain transparency and accountability. This is particularly important given rising investor scrutiny on human rights and environmental practices.
- Enhance Cybersecurity Preparedness: With increased reliance on digital platforms, Ferrari should conduct regular cybersecurity simulation drills and invest in next-generation encryption for its customer and vehicle data systems. This mitigates the risk of business disruption and data breaches.
- Improve Environmental Disclosure: Ferrari should expand its sustainability reporting to include scope 3 emissions and third-party assurance of carbon data. This will bring the company in line with leading ESG disclosure standards and meet stakeholder expectations for climate accountability.

Enhancing third-party ESG audits and improving supply chain transparency also contributes to SDG 16 (Peace, Justice and Strong Institutions), by promoting ethical governance, anti-corruption, and strong compliance systems.

Top 3 Recommendations
Publish outcomes of regulatory settlements (transparency)
Enhance cybersecurity drills & encryption
Improve Scope 3 emissions disclosure with third-party audit

7. Conclusion

Ferrari N.V. stands at the crossroads of heritage and innovation, combining world-class engineering with a powerful brand identity. However, its position in the global spotlight also subjects it to elevated operational and ethical scrutiny. This report has demonstrated that Ferrari is taking many of the right steps to manage risk—from strong compliance systems to ESG investment—but must now address shortcomings in disclosure, transparency, and third-party accountability. As Ferrari navigates the future of electric mobility, data security, and global supply chains, embedding ethical governance into every facet of decision-making will be critical. Investors, regulators, and customers will increasingly reward companies that can deliver performance without compromising integrity. Ferrari must now lead not only in design and speed, but also in ethics and transparency.

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