

# Exploring Uncertainty of Outcome in Dominant Seasons:

## Sponsor-Team Dynamics in Formula One

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### Introduction

Formula 1 (F1) serves as a constructive context to analyze heterogeneity in specific brand and B2B relationship factors

- F1's global ecosystem provides sponsoring brands with multiple international marketing avenues
- Utilized a population of 1,000+ sponsorships involving six decades of F1 teams and sponsoring brands across six continents
- Analyzed co-branding relationships to discern how relevant factors differentially influenced the decision to persist or exit sponsorships

Four drivers have won three or more consecutive World Driver's Championships since 2000

- Michael Schumacher (Ferrari) won from 2000 - 2004; Lewis Hamilton (Mercedes) won from 2017 - 2020; Max Verstappen (Red Bull) won from 2021 - 2023
- Between 1950 - 1999, only Juan Manuel Fangio achieved this level of dominance

### Methodology

- Employed the uncertainty of outcome hypothesis to explore the impact of dominant seasons on sponsorships across three eras
- Longitudinal survival of the sponsorship relationship was the focal point—the event occurrence of interest (i.e., dependent variable) was the dissolution of the sponsorship
- Created and assigned the 'Dominant' variable to seasons where a single team won 50% or more races in a sponsorship model with identical variables
- Across the three eras, there were 56 seasons and 31 were classified as 'Dominant'
- Dataset classified as Era 1 (1967 - 1995), Era 2 (1996 - 2009), and Era 3 (2010 - 2019)



Ferrari

x



AMG  
PETRONAS  
FORMULA ONE TEAM

x

Red Bull  
RACING

### Uncertainty of Outcome Hypothesis

The Uncertainty of Outcome Hypothesis (UOH) is a major factor in explaining the degree of interest that sporting competitions draw from fans and the general public

- Rottenberg (1956) first argued that "more intense competition is positively related to the level of interest of fans, as captured by attendance"
- Neale (1964) referred to this hypothesis as "the appeal of the seat depends most on the uncertainty of outcome"
- Eckard (2016) argues that "individual sports teams and leagues that provide such contests in response to consumer demand gain via greater ticket sales, larger TV contracts, and various other possible benefits"

### Hazard Function Modeling Results

Table 1: Hazard Function Results by Era

Variables	Era 1	Era 2	Era 3
gdp	0.987 (.01)	0.976* (.01)	1.033 (.02)
cpi	1.000 (.00)	1.021*** (.01)	1.005 (.00)
alcoholbev	1.044 (.13)	0.978 (.14)	0.977 (.16)
nonalcohol~v	1.117 (.14)	1.090 (.18)	0.796 (.43)
auto	1.014 (.06)	0.970 (.07)	0.859 (.10)
sportapparel	1.513*** (.09)	1.029 (.11)	0.602* (.13)
bank	0.994 (.20)	2.353* (.91)	1.200 (.31)
retail	0.851 (.07)	0.875 (.08)	0.911 (.11)
telecom	1.021 (.21)	1.093 (.12)	0.897 (.22)
insurance	0.600 (.29)	1.290 (.36)	0.801 (.17)
food	1.002 (.19)	0.810 (.11)	0.892 (.21)
qsr		1.820*** (.18)	6.189*** (1.21)
tech	1.023 (.10)	0.849* (.06)	0.930 (.10)
b2b	1.082 (.05)	0.996 (.06)	0.806** (.07)
Asia	0.869 (.08)	1.023 (.08)	1.145 (.14)
Africa	1.087 (.37)	1.865*** (.19)	2.537*** (.39)
Australia	1.328 (.27)	1.562 (.44)	1.211 (.29)
Northamerica	1.037 (.04)	1.210** (.07)	1.019 (.08)
Southamerica	1.106 (.15)	1.458 (.29)	1.822** (.44)
agency	0.922 (.04)	0.906 (.05)	0.850 (.08)
HasRaceInF~r.	0.881* (.51)	0.945 (.05)	1.021 (.08)
brandequity	0.884 (.08)	0.747** (.07)	0.876 (.13)
fit	1.021 (.06)	0.860* (.05)	0.761** (.07)
public	0.862*** (.04)	0.791*** (.04)	0.746*** (.06)
clutter	1.027*** (.01)	1.009*** (.00)	1.007 (.00)
TotalDrive~C	0.980 (.02)	0.956*** (.01)	0.986 (.01)
TeamBestPo~n	1.014** (.00)	1.000 (.01)	1.109*** (.02)
TotalTeamP~r	0.995*** (.00)	0.997*** (.00)	1.000 (.00)
Dominant	0.945 (.04)	1.048 (.07)	1.872*** (.17)
N	1,983	3,842	3,260
n	1,032	2,953	2,127

Results from Cox proportional hazards model. Standardized coefficients are listed, with robust standard errors in parentheses. \*\*  $p < .05$ ; \*\*\*  $p < .01$ ; \*\*\*\*  $p < .001$

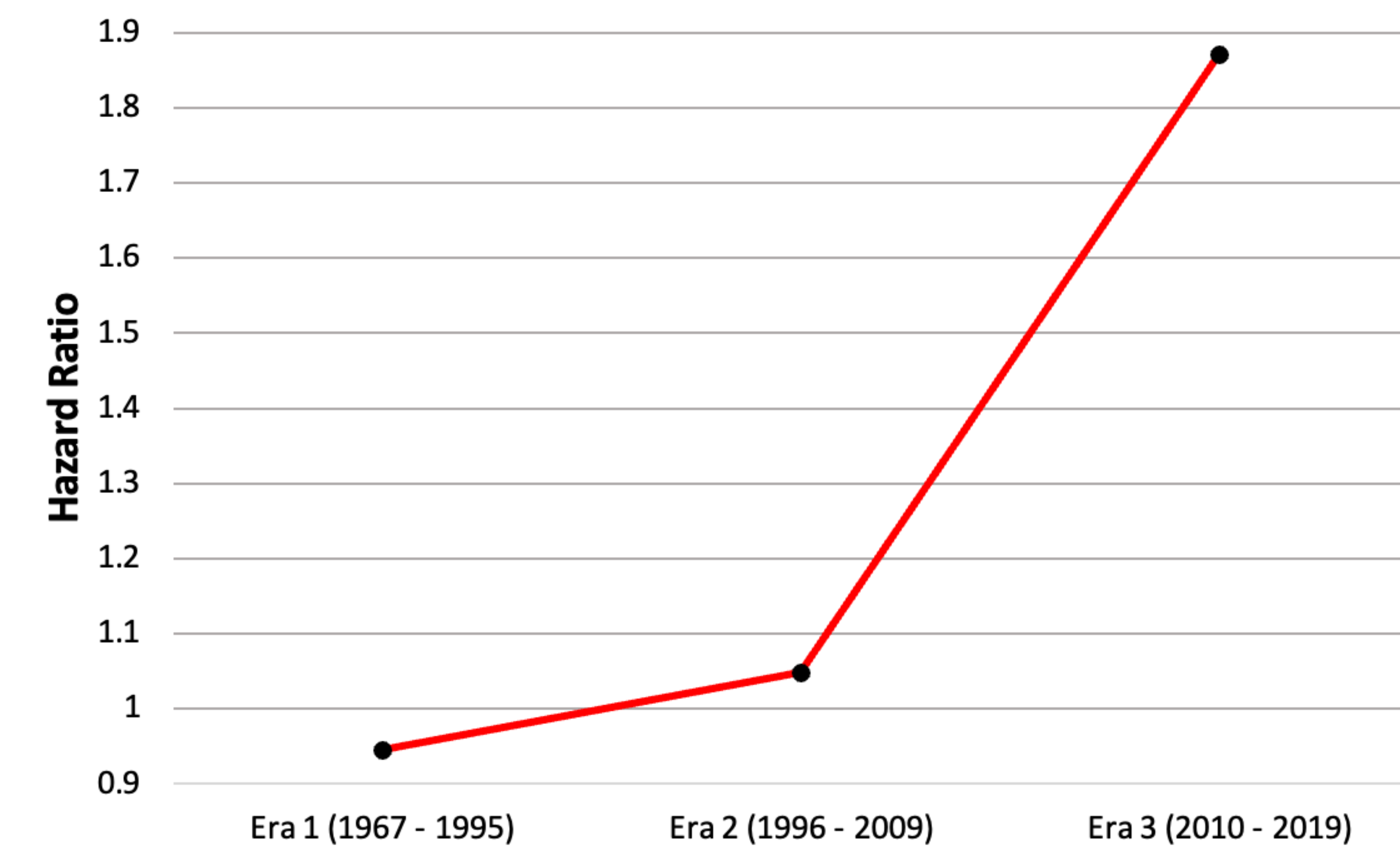
### Results

Each era displayed a different amount of variance in the probability of sponsor exit, based on the Uncertainty of Outcome Hypothesis

- The hazard function in Era 1 was 0.9450 (i.e., 5.50% historical renewal rate for sponsors during dominant seasons)
  - Out of the 1,983 observations in Era 1, 951 experienced a dominant season
- The hazard function in Era 2 was 1.0481 (i.e., 4.81% historical exit rate for sponsors during dominant seasons)
  - Out of the 3,842 observations in Era 2, 2,953 experienced a dominant season
- The hazard function in Era 3 was 1.8721 (i.e., 87.21% historical exit rate for sponsors during dominant seasons)
  - Out of the 3,260 observations in Era 3, 2,217 experienced a dominant season

*Managers of sponsoring brands and team sponsor executives can use this information during dominant seasons to adjust their sponsorship acquisition strategy or relationship management tactics to enhance the propensity for sustained marketing relationships*

### Hazard Ratio - Dominant Season Differentials



### Discussion

The statistically significant UOH results in Era 3 highlight a clear pattern as Formula 1 becomes dominated by one team for longer periods

- Between 2010 - 2019, eight out of the ten seasons were classified as 'Dominant'
- Mercedes-AMG PETRONAS F1 team controlled six of these seasons, starting in 2014 and ending in 2019
- Oracle Red Bull Racing F1 team dominated the other two seasons in both 2011 and 2013
- Beyond 2019, both teams continue to control the racing series, impacting the survival of the sponsor relationship
  - In 2020, Mercedes-AMG Petronas remained the dominant constructor; in 2022 to present, Oracle Red Bull Racing continued to win the majority of races
- This lack of competition within Formula 1 minimizes the level of interest of fans and teams' sponsors, according to the UOH
- Era 1 and 2 experienced decreased renewal and exit rates as a majority of their seasons remained competitive between the teams and their drivers

Sponsors are 87% more likely to exit their partnerships with teams during dominant seasons in Era 3

- Dominant seasons can cause the ROI of partnerships to decrease as sponsors experience less exposure during race weekends
  - Sponsors can seek new relationships with dominating teams, highlighting a business-to-business (B2B) perspective
- Dominant seasons can cause sponsors to leave Formula 1 in its entirety due to the potential decrease in interest each season from the lack of competition