IN THE FAST TRACK

Do organisations perform better when their leaders are experts rather than managers? **Amanda Goodall** *and* **Ganna Pogrebna** *investigate the F1 example* ❯

There has been a recent trend across a broad range of organisations to promote people thought to be skilled managers into top leadership positions. Often these individuals have neither a background in the sector concerned nor hands-on experience of its core business activity. Similarly, major firms have been moving away from hiring chief executives with technical expertise towards selecting leaders who are generalists.

Our research suggests that this is a mistake. In the highly competitive industry of Formula 1 (F1) racing, we show that it is the experts not managers who excel as leaders. Our findings add to the growing body of evidence – in fields as diverse as basketball, medicine and higher education – that knowledge of and experience in a field are at least as important as managerial skills for successful leadership. We have analysed six decades of data on the F1 World Constructors' Championship, in which each organisation's performance can be measured objectively. Our dataset includes information on every car of each constructor team – Ferrari, Red Bull, McLaren, and so on – in every F1 race between 1950 and 2011. We have also collected background information on all team leaders for that period.

Each F1 team competes by entering two cars in consecutive races every year. The goal is to maximise the number of points gained in races. Points are awarded based on the final position of each car at the end of the race: the first car wins the largest number of points with other race points assigned down to tenth position. Teams are relatively homogeneous and identical criteria are applied to measure their performance.

TYPES OF F1 LEADERS

F1 team leaders operate in a skilled and stressful environment that requires quick decision-making. The principal is responsible for the day-to-day running of the team. Some leaders – for example, Frank Williams of Williams and Tony Fernandes of Caterham F1 Team – own and run their own teams. In other cases, principals are hired by owners to manage their teams: such is the relationship between the beverage firm Red Bull and principal Christian Horner.

The precise role of a team leader varies but the kinds of decisions they make include choosing drivers, having the final word on technical issues (such as how the car is set up, pit strategy and which gearbox or engine is used) and financial decision-making, for example, about sponsorship or team wages. Our research focuses on two components of leadership ability: the first is what we call inherent knowledge or hands-on expertise; the second is industry experience. We first identify a leader's depth of knowledge and related expertise and then test whether these characteristics are correlated with organisational performance. We identify four types of leaders according to our two components.

Managers are leaders with low or basic inherent knowledge and minimal industry experience. Manager-leaders might

> ## "DRIVERS ARE LEADERS WITH HIGH INHERENT KNOWLEDGE AND LONG INDUSTRY EXPERIENCE

be successful business people who have moved to F1 from a different and often unrelated industry. Drivers are leaders with high inherent knowledge and long industry experience. Driver-leaders have been involved in competitive racing (F1 and other competitions) as drivers from a very early age. Mechanics are leaders with medium inherent knowledge and average industry experience. Mechanics have practical technical experience in car-making and mechanical repair, but they have not driven competitively and do not have a degree in mechanical engineering. Engineers are leaders with low inherent knowledge of the core business activity and short industry experience. Engineers are highly skilled professionals and are defined in our study as those with degrees in mechanical engineering.

Bearing in mind these different types, who makes the best F1 team leader? To explore whether an F1 team's performance depends on leadership type, it is worth looking first at the patterns in the raw data. These reveal that podium frequency – winning a first, second, or third place in a race – and average wins frequency – coming first in a race – are more prevalent among teams headed by drivers and mechanics

than teams headed by managers and engineers. Drivers and mechanics also have higher average pole frequencies – finishing first in qualifying and, as a result, starting the race at the front of the grid – and higher average fastest laps. They also win twice as often as the two other kinds of F1 leader.

Next we use econometric techniques to take account of the influence of a series of variables, including type of race circuit, team fame, race year and number of cars in each competition. In each analysis, the dependent variable is a measure of a team's performance based on the final position of each car in every race. The key explanatory variable is leadership type. Our analysis confirms that teams led by drivers and mechanics are more successful than teams led by managers and engineers. In other words, better F1 team performance is associated with leaders who have high inherent knowledge of the core business and longer industry experience.

WHO'S IN THE DRIVING SEAT?

The core business activity in F1 is driving. So our final task is to address the question of whether the amount of driving experience makes a difference. To do this, we identify those principals who have ever had competitive driving experience. The results show that time spent as a driver has a big effect on future performance as a leader. For a sense of the size of the effect, it is helpful to consider what happens when a leader has ten years of experience rather than none. This is associated with a 16 percentage points higher probability of the leader's team gaining a podium position – after controlling for circuit, race year, constructors and number of cars qualified. The extra probability of gaining a podium position when a leader has had a decade's experience of competitive racing is about one-in-seven.

So what might explain our results? Former drivers and mechanics may become better leaders because they are familiar with all aspects of F1. From an early age, driver- and mechanic-leaders develop technical knowledge about the underlying activity of F1 racing. This may mean that they acquire extensive experience in formulating driving tactics and combine it with a good understanding of mechanics.

Former drivers and mechanics may also command more respect because of their proven track record. They may also be viewed as more credible since they have 'walked-the-walk'. Having been 'one of them' may signal that a leader understands the culture and value system, incentives and motivations of their colleagues. In addition, we might expect driver-leaders to act as role models within the team, to coax higher performance and to manage the egos of the drivers. Finally, leaders with high levels of expertise and experience may communicate more effectively with any part of the racing team that supports strategy.

Inherent knowledge of the core business cannot be a proxy for management and leadership ability. But our research suggests that in contrast to recent corporate trends to hire generalists as leaders, being a manager alone is not sufficient. Managers performed the least well as F1 team leaders. Leadership is a loaded topic and it is sometimes hard for observers to suspend a natural desire to rely on anecdotes. Based on the evidence in our study, we argue for an 'expert leader' model of effective leadership incorporating a combination of inherent knowledge and industry experience. ∎

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THIS PAGE, LEFT TO RIGHT ROSS BRAWN (WITH MICHAEL SCHUMACHER) TEAM PRINCIPAL OF MERCEDES GP, WAS AN ENGINEER AND MECHANIC; LEGENDARY DRIVER JACKIE STEWART SUCCESSFULLY LED TEAM COSWORTH IN THE 1990S

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