

# TEACHING NOTE

## Case 14: The Formula 1 Constructors<sup>1</sup>

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### 1. INTRODUCTION

This case enables students to explore sources of competitive advantage using the context of Formula One (F1) motorsport. The case highlights the ways in which three particular F1 teams created four situations of competitive dominance for a sustained period. It allows the students to consider individual teams and the generic issues needed to succeed in this specialised context. The case is organised into five parts. The first is a brief overview designed to give those unfamiliar with F1 some understanding of its history and structure. This is followed by four detailed descriptions of particular periods of dominance by an F1 team.

The introduction to the case describes the overall nature of Formula One motorsport and its origins in Europe after World War II. It identifies some of the central aspects of being an F1 constructor, such as the need to generate sponsor revenues through increasingly sophisticated marketing strategies, and also the need to design, develop, manufacture and race open-wheel single-seat racecars. Note: the term ‘constructor’ differentiates F1 from other racing series in which race teams compete with bought-in racecars. F1 constructors are effectively in the business of designing and constructing prototypes – each car being unique to each constructor but within a set of pre-defined rules that cover weight, dimensions and other basic parameters. The introduction also makes reference to the nature of the motorsport cluster in the UK, a phenomenon similar to that of Silicon Valley in California. In 2004, seven of the ten F1 teams were located within this specialised cluster, located roughly within a 50 mile radius of Oxford. This provides an opportunity to connect to issues of location and national/regional competitive advantage.

This is followed by four accounts of sustained competitive advantage (here we define sustained as three or four years of dominance) featuring Ferrari in the mid-1970s, McLaren in the late 1980s, Williams in the mid-1990s and Ferrari from 1999-2003. Each account explores the background to the constructor, from the formation of these entrepreneurial businesses through to their development into a world-class organization.

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The focus is on the build-up to their period of competitive advantage, but each case also then relates to the loss of the advantage for the constructor in this period, with the exception of the final case where the discussion may usefully be directed as to what may cause the loss of competitive advantage.

## 2. POSITION OF THE CASE

This case can be used to explore the issues raised by the resource-based view of strategy. It provides a basis for students to develop causal linkages between particular resources and their effect on achieving competitive advantage. The context particularly emphasises the relative nature of competitive advantage, i.e. that the resource-based view requires a constant reference to the resources and competence of competitors in order to define competitive advantage.

The case was designed to be used on an MBA programme where students consider the application of the resource-based view in order to 'unpack' sources of advantage. The case has also been successfully used on final-year undergraduate programmes and also for executive development in helping managers explore the nature and location of sources of advantage.

## 3. LEARNING OBJECTIVES

The overall learning objectives can be summarised as follows:

- To understand that although strategy can be seen as generic at a high level, it will always be idiosyncratic at the organisational level, even where organisations are in the same industry and all have the same goal. Therefore strategic *management* has to focus on the idiosyncratic characteristics of every organisation in order to develop a strategy that will work in this context.
- Strategies that are based on highly mobile resources (e.g. individual drivers, designers or engine suppliers) need to focus either on finding ways of locking in these resources, or on building competence to allow them to continually find and acquire new ones.
- While highly complex and idiosyncratic resources are particularly difficult to imitate (e.g. Ferrari) they are also difficult to manage and vulnerable to changes in the environment or a loss in any of the elements.
- Sustained advantage is often achieved through the linkages between resources rather than the resources themselves (e.g. the way the drivers link in to the design engineers).
- A shift in the environment can suddenly change the value of particular resources; an external view is therefore fundamental to sustaining advantage.

- It can also raise the point that advantage can be created by luck: a fortuitous combination of resources or a lucky event in the environment. This can be used to develop the debate about whether managers influence strategy or just post-rationalise their luck in strategic terms.
- It can also be used to address the question as to whether there is a such a thing as sustainable competitive advantage. This is particularly relevant to the two Ferrari cases as they suggest that a different kind of organisation is required to create advantage in these two different periods. For this debate the cases can also be used in conjunction with Case 15 'Transforming the Prancing Horse' which looks in more detail at the transformation of Ferrari during this time.

#### **4. TEACHING PROCESS**

There are a number of different ways in which the case can be used. It works particularly well in situations where the participants spend some time in group work before discussing the cases, such as on a MBA programme. The usual way to apply the case would be to allocate separate syndicate groups to consider one of the four accounts of competitive advantage. A series of questions are used to guide the way in which the students approach the case.

The recommended approach is to start with each syndicate presenting their responses to the case questions (see below). At the end of each syndicate the instructor would summarise the key points on the board, under four columns, one for each account of sustained competitive advantage. As each group presents, the instructor will finish up with a quite distinctive set of key words under each. This enables the session to move on to the learning points. The way this is handled will depend on learning maturity, but it is best to simply ask the plenary session what similarities and differences they see between the four accounts. Put these up on the board/OHP and then go on to ask what conclusions they would draw from these. This will take the discussion into the notion that while at a high level strategy might be generic, at a management level it is highly idiosyncratic and organisation specific.

#### **5. QUESTIONS FOR DISCUSSION**

1. What do you need in order to succeed in Formula One?
2. Why you think your team were successful during this period?
3. Why were they unable to sustain this success? What could they have done to sustain their success further?

## 6. CASE ANALYSIS

This section offers a number of suggestions for discussing the above questions and exploring related issues.

### 6.1 *What do you need in order to succeed in Formula One?*

This question is intended to get the students to identify the generic model needed to succeed in this industry. At a very simplistic level this can be described as having unique resources such as the best driver, the best car (achieved by bringing together the chassis design and engine technology) and the best supporting team, which provides race tactics, pit stops etc. All of this is supported by finance, which comes from the ability to attract and retain sponsors (this is less important for Ferrari, who are owned by Fiat). This discussion can be developed by discussion as to what 'best' means and how this is created. It raises issues about separating the causes for success from the effects of success: is Ron Dennis the cause of success for McLaren? Or is this a perception created by the fact that he happens to manage a successful team?

### 6.2 *Why you think your team were successful during this period?*

We now move from the generic level of success to consider the specifics of each team. The issues raised will be attributed to personalities, but will also be about the ways in which different teams approach the task of winning the championship.

#### **Ferrari and its renaissance in the mid seventies**

Ferrari were successful because everything worked together. While they have always had a huge wealth of technical expertise and resources, the problem has been getting this to work together. In the past this had been exacerbated by the 'divide and rule' style of Enzo Ferrari. This working together was exemplified in the relationship between three key individuals: driver Niki Lauda, designer Mauro Forghieri and team manager Luca Montezemolo.

The other reason for Ferrari's success was that because they had their own unique approach (e.g. they built their own engines and gearboxes) it was very difficult for other competitors to imitate them, as they did not have access to the same technology as Ferrari.

#### **McLaren and Honda domination in the late 1980s**

McLaren were successful because they were able to put together the best of everything. They secured exclusive use of the Honda engine at a time when it was the most powerful and reliable; they were also able to secure the services of the best drivers

around (Senna and Prost). This was due to the high level of funds made available by sponsor Philip Morris. Another issue that often comes up is the commercial and leadership skills of Ron Dennis.

An interesting area for discussion here is their decision to recruit the two best drivers. Was this a good idea or did it create more problems than benefits? It raises the question of locking in resources not just to maximize your performance, but also to deny your competitors access to them.

### **Williams and the technological revolution: the mid nineties**

Williams' success was due to their engineering focus, which enabled them to take many of the innovations developed by other teams and turn these into a car that was both fast and very reliable. This engineering focus can be attributed to the long-standing partnership of Frank Williams and Patrick Head. Williams were notable in their disregard for drivers and their attention to building a wide-ranging relationship with their engine supplier Renault.

This discussion raises issue around the different choices which firms have in terms of the kinds of resources on which they focus. From one aspect Williams strategy makes a great deal of sense in that they are more able to appropriate the benefit of engineering resources, whereas driver resources are highly mobile and the drivers tend to capture most of the value (through retainers and personal sponsorship).

### **Ferrari: the return to glory: 1999-2003**

This account is in marked contrast to the Williams approach in that Ferrari based their resource strategy primarily around driver Michael Schumacher. The usual conclusion here is that it is all down to Schumacher, but closer examination reveals this not to be the case. Whilst Schumacher was undoubtedly a key element in the success, he probably would not have achieved it without the rebuilding of the technical team and their close partnership with Bridgestone tyres.

An interesting area for discussion is to compare how Ferrari's success in this period is different from the previous period. This draws out the importance of being able to implement change as being a key part of competitive success. This issue is developed in more detail in Case 15: Transforming the Prancing Horse which can be used in conjunction with this case.

### **6.3 Why were they unable to sustain this success? What could they have done to sustain their success further?**

Here the students will focus on the reason why the advantage was removed. This also allows them to consider whether or not anything could have been done to prevent this loss of advantage.

#### **Ferrari and its renaissance in the mid seventies**

The reason for Ferrari's loss of advantage can be isolated into two factors: first, the discontinuity created by the promotion of Montezemolo to head up the whole of Fiat's motorsport operation, and Lauda's accident, which took him out of racing for around six months. Second, Ferrari's unique approach constrained them in terms of responding to new innovations, most notably the introduction of ground-effect, which required a slim 'V' configuration engine rather than Ferrari's traditional flat 12. This raises the point about whether an organisation that does all its activity in house can keep pace with the combined efforts of the many 'generic' suppliers used by the other teams. It also underlines the point of 'core rigidities' where the sources of advantage in one situation become a source of disadvantage in another.

#### **McLaren and Honda domination in the late 1980s**

The reason for McLaren's demise was very simple: Honda pulled out of Formula One. This in turn broke the virtuous circle that attracted the best drivers, and Ayrton Senna moved to Williams. This raised the question of what value McLaren themselves generated, as the key to success seemed clearly to reside in Honda engines and the skills of Ayrton Senna, both of which were relatively mobile resources.

In terms of what they could have done, there is certainly evidence to suggest that McLaren chief Ron Dennis should have considered the possibility of a Honda withdrawal more seriously. It illustrates how phenomenal success can blind management to the possibility of change.

#### **Williams and the technological revolution: the mid nineties**

In the case of Williams, their advantage was eroded through a series of events: first the loss of exclusive access to the Renault engine when Renault decided to provide engines to the Benetton team; second, the leakage of some of their know-how through their junior designers moving to other teams – mainly because they would be unable to gain a senior position in Williams as long as Patrick Head was there; and third the recruitment of superior drivers (specifically Michael Schumacher to Benetton) leading to the Williams car's advantage being eroded.

However, it could also be argued that Williams were still in a position to dominate. When Michael Schumacher left Benetton to join Ferrari the Benetton team failed to

sustain their advantage, and Williams once again became dominant. A discussion could be developed around some of these issues.

### **Ferrari: the return to glory: 1999-2003**

Whilst the time period for the case is up to 2003, they enjoyed an even greater level of supremacy in 2004, but are currently doing less well in 2005. The question therefore needs to be amended to consider the factors which might create a loss of dominance and also how they would deal with this in a strategic sense. The most obvious factor is the retirement of Michael Schumacher, it is possible that when he leaves many of the key people around him may also take the opportunity to move on whilst their employment value is very high – or alternatively take early retirement to enjoy the fruits of their labours.

There are some potential parallels with Ferrari's loss of success at the end of the 1970s with some of the key people being promoted to other roles. In 2004 Luca di Montezemolo became chairman of Fiat and Jean Todt became CEO for the entire Ferrari operation – including the 3500 people who work on road cars. It is an interesting discussion to explore the problem of succession in high performing organisations and whether it is in fact possible to sustain performance at all in the long run and that firms benefit from a period of regeneration and regrouping.

**For further background on Formula 1 and the management issues in these and other teams the following publication is available:**

Jenkins, M., Pasternak, K. & West, R. (2005). *Performance at the Limit: Business Lessons from Formula One Motor Racing*. Cambridge, UK. Cambridge University Press.

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<http://www.cambridge.org/uk/catalogue/catalogue.asp?isbn=0521844002>

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