Icons on the Edge: How Fiat saved itself and how it just might save Chrysler

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1. Brief Description

Among the most interesting dramas to come out of the Great Recession was the shot-gun marriage of Fiat and Chrysler. Brokered and financed by the United States government in an unprecedented market intervention, the merger brought together two companies whose histories were strangely similar but whose prospects had recently diverged.

Chrysler is an American icon, one Detroit's famed "big three." It is also a company with a tumultuous history. It fell on hard times and needed a government bailout in the late 1970s -- albeit a small one compared to that brokered by the Obama administration -- and, in the wake of that bailout, resurged enough under the legendary Lee Iacocca to bring the world the minivan and to become the most profitable of the US automakers by the late 1990s. But the company then declined anew in the wake of a disastrous 1998 merger with Daimler Benz, was gifted by Daimler to American private equity and, floundering, gifted again to the Italians by an American state hoping desperately that the Italians might save jobs in a depressed region.

Fiat is just as iconic -- and just as storied, for better or for worse. The Turinese company was famously a central pillar of Italy's "miracolo economico" -- with small, but smart and stylish cars like the 500 and 600 (the "topolino") emerging as key symbols of the country's rapid recovery from the devastation of WWII. Fiat, like Chrysler, also nearly collapsed in the late 1970s amid traumatic labor strife, recovered with some combination of aid from the Italian state and the development of stylish new models that -- paralleling the minivan -- were rapidly copied by envious competitors. And Fiat, like Chrylser, fell apart in the late 1990s and was on the verge of bankruptcy in the early 2000s. But there the parallel ends. Fiat -- to quote *The Economist* in 2008 -- then underwent a “remarkable industrial and financial turnaround that is likely to be pored over in business schools for years.” The business press’ coverage of Fiat's turnaround and takeover of Chrysler has to date mostly ascribed that revolution to the genius of Fiat's charismatic Italian-Canadian CEO, Sergio Marchionne, lauding him for the revolution he initiated at the Turinese automaker and, in the terms of Time magazine, recognizing him as a "Turnaround Artista."

Lost in the spotlight of praise, however, has been attention to a series of novel organizational routines and dramatically enhanced product development competencies that have been the real precondition of the Italian automaker's turnaround. These routines and competencies, though well-tended by the new management team, were in fact seeded prior to Marchionne's arrival. Without them, the company would never have been able to so quickly release a series of stylish new models given the resource constraints. Yet their importance, and thus the real

lessons of Fiat's turnaround, have not been fully grasped either in contemporary organizational scholarship or in the popular the business press.
The proposed book will hence fill this gap by analyzing the recent evolution of these two companies in a manner that is accessible to scholars and educated lay readers alike, but that also serves an important theoretical ends. Using concepts drawn from evolutionary theory, the *genotype* and the *phenotype*, the book speaks to the possibilities and prospects for these now-married icons on the edge. It argues that the relative success of the merger will depend on the results of Fiat's efforts to transmit a series of organizational routines -- the genotype -- to Chrysler, as it is these routines that will ultimately influence the patterns of product development activity -- the phenotype -- at its new American partner. In so doing, the book shows not only whether and under what conditions the merger is likely to work; it also makes a substantive theoretical contribution by showing how competencies are -- and are not -- effectively transmitted and leveraged within and between organizations.

2. Full Description

On April 30, 2009, Barack Obama announced that Chrysler would be shepherded by $6.6 billion in American Treasury capital through the bankruptcy process and into the arms of Fiat Auto. This, at least in American history, was unprecedented. The American state, which styles itself a beacon of global capitalism and all that France and Germany are not, had already stepped in to finance General Motors, and now it would broker and finance a *merger* between two giant companies -- one of them foreign. The short term goal was to save jobs in the midst of a cataclysmic financial crisis. That goal has been met. General Motors, which got more money and more attention, has had a successful IPO, lives, profits and seems sure to survive.

Chrysler also lives, and continues to employ thousands at its own plants and thousands more at its dealers and suppliers. But more questions remain. Will the longer term goal – generating a genuine and sustainable turnaround in Auburn Hills – be met? There are reasons to think it just might be: Fiat – as Mr. Obama was quick to note – “has demonstrated that it can build the clean, fuel-efficient cars that are the future of the industry”; and Chrysler, as Fiat’s CEO, Sergio Marchionne was also quick to note, gives Fiat a coveted foothold in the North American market that it has not had since 1982. There are also obvious reasons to think it might not: mergers and alliances in the automotive industry are famously fraught; and this one is all the more so for the fact that it is a shotgun marriage between an ailing company only just off a bitter 2007 divorce from Germany’s Daimler and a crisis-prone – though recently resurgent – Italian suitor whose own short-lived joint-venture with General Motors ended badly in 2005.

In the proposed book, we identify the conditions under which one should expect the merger between Fiat and Chrysler to go well over the long term – and, in so doing we also say something of significance about mergers and alliances more generally. To do that, we have access to a great deal of data. We have been studying Fiat and its supplier network in “real time” for the last 12 years, and have conducted scores of interviews at that automaker and its suppliers. Since the merger, we have also been rapidly reconstructing the undoing of Chrysler and its supplier network through a combination of retrospective interviewing and an extensive analysis of documents and of the secondary literature. The underlying theoretical framework that we bring to bear on the question is, moreover, one that has borne the test of many an analysis: we understand organizations as bastions of competencies built from organizational routines; and we thus expect the merger to succeed if and only if the automakers in question find a way to generate new competencies by transferring, coordinating and leveraging unfamiliar routines across uncertain, uneven, and unfixed organizational and cultural boundaries.

Competencies are central to our analysis as they are held in the managerial literature to explain persistent performance differential between firms. Descriptions of Fiat’s product development competencies can thus be employed to explain, for instance, how, how well, and how quickly Fiat has been able to develop and market new models. Now that Fiat and Chrysler have merged, however, we need also to understand how those competencies translate across organizational boundaries. In our narrative, we therefore invoke the more basic concept of the *routine.*

Routines, in our framework, are the building blocks of organizational competencies. Toyota's competency in high-quality manufacturing, for example, is a consequence of Toyota employees' reliable use of root cause analysis, and quality control techniques at the point of production. To behave like a proper "Toyota employee," in short, means to behave in a way that differs from the way employees at, say, GM or BMW do. In this sense, a firm’s routines are also like its DNA, or its *genotype*. Like genes, routines provide the *instructions* that *influence* behaviour, but they do not *dictate* behaviour because they also intersect with other routines, and with the routines of others, especially in ambiguous situations; it is thus only in combination that they generate what we think of as competencies. Those competencies, built from organizational routines, define the repertoire of actions the firm can be expected to carry out reliably. For instance, manufacturing teams carry out quality control in specific patterns of team activity that recur precisely every time a quality check is completed -- which then map in the evolutionary metaphor onto the *phenotype*.

The concepts of organizational competencies and routines have been standbys of organizational scholarship for some years. But, in recent years, it has become clear that the conventional interpretation and use of those concepts must be rethought in light of the fact that the design and making of many products -- including especially cars -- does not take place in single organizations. It is now standard practice to involve suppliers heavily in design and engineering. To a significant extent, developing new products therefore requires not just *intra*-organizational competencies and routines, but also *inter*-organizational competencies and routines. The inter-organizational competencies that matter in this context are, for instance, ways of incorporating supplier ideas into product designs in order to harness those ideas for quality and cost improvements; but again, to understand these inter-organizational competencies and their likely effectiveness when they recombine across organizations, they need to be broken into routines. For instance, to reduce stocks of components, the auto manufacturer and its suppliers need not just to have the competence of just in time delivery -- but competencies that dovetail. That competence is built from inter-organizational routines such as information-exchange routines as regards stock levels, scheduling routines, trouble-shooting routines and so on that can go awry if the systems they use do not communicate properly.

Our goal, then, is to identify in very concrete terms the intra- and inter-organizational competencies and routines that constitute the ways in which Fiat and Chrysler perform and have performed their tasks and, in so doing, to show how particular routines can be recombined in light of the merger as Fiat endeavours to reconstruct the Auburn Hills automaker not *on* its ruins, but rather *with* its ruins. The tale that we tell is thus one rooted in the companies' histories -- first as separate narratives, then as a joint narrative -- as we aim to identify their ‘DNA.’ The goal is to show what guides the behaviour of the respective organizations, making them reliable and systematic (for better or for worse -- they may be reliably low rather than high quality), and thus to identify the sorts of phenotypical offspring that are possible and likely.

We begin in the early 1990s, at a time when the trajectories of the two companies had begun in a curious way to parallel each other especially deeply. Both companies, like other car manufacturers in those years, had drawn lessons from their more successful Japanese competitors by mimicking the practice of relying more on suppliers for help not just with production but also innovation. This led them to radically outsource product development tasks such as design and engineering to suppliers. Both companies, as the 1990s wore on, then tacked – though for different reasons.

Fiat turned first. Leadership at the Italian company quickly grew enamoured of the flexibility and lower costs they had gotten from outsourcing – so they did more of it, and they did it even more radically. By 2000, the Turinese automaker was relying on outside players for as much as 70% of production and, on some models, up to 85% of design. Under the assumption that those suppliers would pick up the slack, the Italian company then reduced spending on research and development and allowed its internal design competencies to erode considerably. Chrysler’s own trajectory saw Auburn Hills hollowed out in similarly dramatic fashion, where an initial truncation of the repertoire of product development routines led to an erosion of internal product development competences. The smallest of the American automakers had briefly been a darling of the business press, praised, for example, by Jeffrey Dyer for having successfully developed precisely the sorts of inter-organizational routines that had underpinned the prior success of Toyota and Honda. Unlike Fiat, Chrysler’s leadership had seen in its suppliers an opportunity to augment rather than to supplant its own R&D, and had by most accounts successfully established relatively collaborative relations with those suppliers. But this did not last. The turn came when Chrysler was taken over by Daimler in 1998. The Germans consolidated investments in design and R&D in Stuttgart, and, when audits showed that Chrysler was in some cases paying more for parts than were competitors, essentially dismantled Dyer’s supplier networks. However, in so doing Daimler also destroyed many of the inter-organizational routines that were the basis of Chrysler’s product development competencies.

The presumption that design would be adequately handled by others proved disastrous for both companies. Though Daimler's *intra*-organizational product development competencies were famously strong, the Germany company did not have -- and did not develop -- the *inter*-organizational competencies required to effectively integrate technologies developed for Mercedes in Jeeps, Dodges and Chryslers; and a hollowed out Fiat did not have the internal or inter-organizational competencies to adequately integrate the technologies they bought from outside. Neither company, in short, managed to produce on the cheap vehicles that consumers wanted for reasons rooted in their inability to coordinate a multitude of players across organizational boundaries. The companies responded, however, in very different ways. Stuttgart pushed Auburn Hills to cut costs still further – to little avail – and ultimately paid Cerberus Capital to take Chrysler (and its health and pension obligations) out of German hands; and Cerberus, as is now well known, continued to focus relentlessly on cost reduction and made little effort to develop the research and design competencies necessary to improve Chrysler’s product portfolio. Fiat’s leadership, by contrast, decided that Turin’s only hope to was to somehow get a series of stylish new models to market fast – despite what were very real resource constraints (the company was on the brink of bankruptcy by 2005). To do that, Fiat didn’t invest just in technologies; the Turinese automaker also reinvested in its technical division and, more importantly, reconceptualised relations not just internally but also with the suppliers that had become responsible for so much production and design.

This reconceptualization of relations proved both winning, novel, and, we argue, is the reason that Fiat just might succeed where Daimler and Cerberus failed. Fiat's turnaround has rested to no small degree on the company's efforts -- since 2005 -- to groom a particular series of inter-organizational routines that allow for a new division of labor between Fiat and suppliers in the design and development of new models. The idea, put simply, has been for Fiat to focus its in-house engineering resources on developing models that will serve as "templates" for particular market segments, and then to outsource the development of models derived from those templates to suppliers. This division of labor contrasts strongly with the predominant logic in the industry, by which carmarkers and suppliers each concentrate on the design of some systems or components of the car where they have a "core competency" (such as safety systems for Bosch, or engines for Fiat). In the book, we show how this practice -- and especially the inter-organizational routines by which it occurs -- enabled the company, with a minimum of capital, to leverage good ideas into more models than they could have done alone. And, we argue, it this practice and the models it bore which were the essential precondition for a recovery in sales and profits, and which allowed a company maligned just a few years previous for its quality problems to produce the European car of the year in 2008.

Now, with Chrysler in Italian hands and famously in dire need of a revamped product portfolio, Fiat’s novel – and at least once winning – inter-organizational routines will again be put to the test. The guiding question in the book, in short, is to understand whether and to what extent Fiat will be able to regenerate competencies at Chrysler -- that is, what sort of phenotype will most likely emerge when Fiat's routines are brought across the Atlantic. Whether Fiat will in fact be able to effectively revamp its American partner is something that can only truly be known with time. But by identifying particular routines that Fiat is endeavoring to transfer, extend, and leverage at Chrysler (such as how design changes are negotiated and implemented or suppliers’ ideas are integrated in product design), and by identifying the cognate routines at Chrysler with which Fiat's routines must dovetail, there is much that we can already say – and we thus propose to say it in a book we believe can interest scholars of organizations and educated lay readers alike. Our answer will necessarily make space for contingencies -- indeed, our theory presupposes contingencies. But we can and will in the book identify the range of likely outcomes -- the offspring, in a sense -- of Fiat's marriage of the "template model" with its highly effective inter-organizational routines for product development with Chrysler's existing routines.

The merger is substantively and politically important but, at least in English, there is a stunning dearth of recent in-depth academic studies of either Fiat or Chrysler. Analysis has been left to the journalists, and has consequently been thin, often promulgating in more or less explicit ways little more than a personality-driven "great man" theory of organizational change. We will remedy this. Neither maligning nor lionizing the men and women involved, we shift the focus towards a more analytic and generalizable identification of the conditions the merger is likely to work, and, in so doing, we make a substantive theoretical contribution to a broad range of subfields in the study of organizations and management. The combination of the companies’ crises and checkered histories, the intervention of the American state, Chrysler’s glaring need for multiple new models in short order, and Fiat’s recent success in developing new models in partnership with third parties mean that the merger provides a unique opportunity for scholars interested in everything from mergers to organizational change to outsourcing and beyond to learn how competencies and routines are – and are not – effectively transmitted and leveraged within and between organizations.

3. Chapter Outline

Chapter 1: Introduction

In the introduction we lay out the question, the stakes, the theoretical framework, and the book’s contribution. We describe the 2009 crisis in the American auto industry, explain how the American government shepherded Chrysler through the bankruptcy process and into the arms of Fiat Auto and ask whether Fiat will in fact be able to effectively revamp its new partner. We briefly survey both popular and academic arguments as to whether and how the merger might go well, and show that there is a broad consensus that revamping Chrysler will be all but impossible without quickly bringing new and appealing models to market. We show, in short, that the key to the merger’s success lies in Fiat’s ability to revamp Chrysler’s beleaguered product line. We then argue that an adequate understanding how this might occur requires a theoretical framework attentive not just to boardroom machinations but also to organizational processes, and in particular to the interplay of organizational routines, of development efforts by employees and suppliers, and of the ways in which organizational competencies are used in the short-term and developed in the long-term. Most importantly, we explain why answering our question with this theoretical framework helps to understand not just goings on in the Fiat-Chrysler merger, but sheds also light on processes of organizational change more generally.

Chapter 2: A shotgun marriage?

The second chapter turns to the merger itself, and explains the reasoning behind the White House auto task force’s decision to push Chrysler into Fiat’s arms. It draws on a combination of interviews and documents released by the White House auto task force to establish that Fiat was chosen in part simply because the Italian company was willing to take on a risk that other potential suitors were not. However, the decision to finance and broker the alliance -- a decision uncertain enough that a tie in the Automotive Task Force vote had to be broken by Larry Summers -- was eventually taken with the argument that it could really work due to 1) Fiat's green power train technology and 2) a perception that these technologies could transferred relatively rapidly to Chrysler. Our own analysis concurs, and we therefore argue that the organization of product development is key to Fiat-Chrysler’s future viability. The chapter thereby prepares the reader for the in-depth descriptions of Fiat’s and Chrysler’s product development organization that will come in subsequent chapters.

Chapter 3: Icons in the shadows

In this chapter, we provide the reader with a description of the two firms’ deep DNA -- the recessive traits that emerge every now and again, to push the metaphor -- and set the scene. To do this, we show that both firms have across their histories bounced up and down, surprising with successes on the one hand but giving their workers and investors unwanted thrills on the other by landing on occasion quite close to failure. We show that each has long been, and still is, marked by an identity as the "plucky little guy." They are icons -- but just barely so -- and have had to be creative to compete with the giants.

Fiat dominated the Italian market but in its forays abroad was always in the shadow especially of Daimler for luxury models, and of Volkwagen and the French in the making of cars for the masses; and Chrysler has unquestionably been Detroit's third automaker -- never its first or second -- since its 1925 founding by Walter Chrysler (who, notably, cut his teeth managing Buick for GM). Each company has long reacted to this structural position by developing innovative models that could dominate a niche -- leaving themselves, however, vulnerable if those models did not take off. Chrysler, for example, pioneered unibody construction, created the Hemi engine and in the 1960s developed a legendary series of affordable high-performance vehicles marketed to men, went into deep crisis in the 1970s amid quality problems but especially the 1973 oil shock and ensuing collapse in demand for its gas guzzling models, turned around -- with government help -- under the legendary Lee Iacocca, made the minivan into a mass product in the 1980s, and came into the 1990s as a very profitable company. Fiat, for its part, brought small affordable cars to the post-war masses, seemingly coming up with a creative and enormously popular model every ten years or so: the 500 and 600 in the 1950s; the 850 in the 1960s; the 127 in the 1970s; the Uno and the Panda in the 1980s; and the Punto in the 1990s. But Fiat, like Chrysler, had its crises, including most notably a crisis of profitability in the late 1970s that led to mass layoffs, to a strike, and to the "March of the 40,000" -- all of which mark the company and its often-tense labor relations still today.

Chapter 4: Icons to the edge

This chapter turns to the two companies more recent histories with the intention of identifying, to push the book's central metaphor, those traits that are more dominant and thus most relevant today. In particular, the book traces parallels in the paths taken by Fiat and Chrysler in the 1990s. It shows that each company was again innovative in its own way, and that each managed to compete even despite immense pressures at the time to chase scale. The chapter also shows that each company, in order to manage those pressures went further than did their competitors in their reliance on suppliers and that each sought to learn lessons of supply management and "network" modes of organization from their then-successful Japanese competitors. Each, however, with guides in the management strategy literature and in the business press, took different lessons from those competitors; and each, for those differences, thus became a media darling by hewing quite closely to a strategy that some in that business press held was the sort of strategies required for success in an industry obviously in transition.

Fiat in those years focused especially on the devolution of risk and therefore massively stepped up the extent to which it outsourced product development to suppliers. It took the strategic decision to involve of suppliers in the product development process much more than previously, in the expectation of leveraging the solution that had served it well so far. Fiat took the outsourcing of product development further than did any other auto manufacturer, outsourcing up to 85% in terms of value of the car in the late 1990s. And, while not especially profitable, the company was enticing enough that it was able to woo GM in 2000 into a joint venture that merged purchasing for Europe and Latin America and that shared powertrain technologies. At Chrysler the emphasis lay more on the possibilities that might inhere in collaborative relations with suppliers, the company therefore outsourced very heavily but, at the same time built its own Japanese style "keiretsu" in which suppliers were all but guaranteed business in exchange for efforts to help Chrysler to regularly come up withe sorts of small-scale innovations that Toyota and Honda had shown to simultaneously improve quality and to control costs. The company, as a result, was in those years highly profitable and attracted as a result an important German suitor -- Daimler -- for what was at the time touted as a merger of equals.

Chapter 5: Icons over the edge

This chapter discusses a deep hollowing out of product development that occurred at both companies in the late 1990s – at Fiat due to a strategic calculus, at Chrysler following Daimler's acquisition of the American automaker.

At Fiat, we show that the decision to outsource so heavily led to the elimination of particular internal routines, which was expected and intended, but because the loss of those routines eliminated opportunities for engineers to learn by doing, it ultimately had outsize effects on the company's product development competencies, which was decidedly not expected nor intended. The joint venture with GM, meantime, led both to the loss of still more routines, the addition of others, and had the net effect of pushing Fiat to emphasize cost-cutting at the expense of innovation. Combined with an errant internal reorganization, it ultimately contributed to a crisis in sales that left the company -- which was debt-ridden -- on the brink of bankruptcy by 2002. Daimler-Chrysler, for its part, quickly ceased to be a merger of equals. The German company, with its strong internal product design competencies and very established routines, paid little heed to Chrysler's way of doing things, aiming instead to command from Stuttgart. The ensuing hollowing out of Chrysler's product development competencies was hence intentional -- a cost savings move, on the grounds that they were redundant. However, we argue, in practice Daimler's routines did not mix well with those of their American partner, there was hence an inability to transmit those powerful internal capabilities to the American partner, and Auburn Hills quickly lost so many sales, so much reputation, and so much money that the company offloaded at a tremendous loss to Cerberus Capital Management in 2007 was but a shell.

Chapter 6: The fates diverge

This chapter explores the divergent fates taken by these two companies that had once had such parallel trajectories. Daimler, as we will have noted in the previous chapter, sold Chrysler as it began to bleed cash to a buyer (Cerberus) that then essentially accelerated the hollowing out of the company's product development capacity. In this chapter, we thus concentrate on Fiat – Chrysler's eventual white knight – and show that Fiat's turnaround was rooted in a dramatic change of direction.

The chapter shows that the turnaround began prior to the arrival of Fiat's dynamic CEO, Sergio Marchionne, with a turn towards insourcing as early as 2003 -- though it did accelerate under Marchionne. The turnaround could not have happened without some effective management of contingencies (GM put option, suppliers cost cuts, etc.) and some clever financial decisions; but these, we argue, matter only because they created space for the organizational innovations that have today made of Fiat a potential white knight. In particular, we show that Fiat, beset by many problems and needing to recover lost competences in a situation where it had “no money and no time,” introduced an innovative technique for dividing development tasks. This technique was essentially a routine for sharing routines that, we argue, improved the automaker's ability to learn from suppliers, and to transfer the inter-organizational routines that embody such knowledge to engineering suppliers. This was done with a distinction between *template* and *derivative* projects. These are distinguished by different division of labor between Fiat and its suppliers (Fiat is responsible for integration of systems in template projects, while it delegates that responsibility to an engineering supplier for derivative projects), different internal organization (such as team staffing, use of contracts), and different consequences (learning in template projects, leveraging solutions for economies of scale in derivative projects).

Chapter 7: The fates converge -- but where will they go?

The final chapter asks, in light of our analysis of the company’s organization whether and under what conditions the merger is likely to work. The companies have committed to making better cars – which seems a good start. Whether they succeed in doing so, however, depends on the ability of the two resource-constrained organizations to manage innovation across what will remain, at least for some time, a real-if-porous boundary. We hence detail what it means to translate the “template model” to this new context, and draw some first impressions as to the relative success of that transfer. In closing, we discuss the prospects for a successful merger between Fiat and Chrysler and, more importantly, extract the lessons that we can learn from the case for the organization of innovation in the automotive industry and beyond. Those lessons, we argue, not only show the utility of an approach that distinguishes between -- but relates -- routines and competencies, but that extends them across the blurred organizational boundaries characteristic of so many industries today. The book, we hence argue, has much to say both about the challenges that innovating firms -- *in general* -- face today, and about the ways in which firms might best tackle these challenges.

4. Market and Competition

The book will draw on the histories of the two companies, but it is not a history. Rather, we intend a relatively short and pointed monograph that strategically mines past and present in order (1) to give readers some insight into the prerequisites and chances for a successful merger between Fiat and Chrysler; and (2) to use the case to draw more general lessons both about organizational processes and about the contemporary automotive industry. In its perspective and content, the proposed book will therefore be similar to a number of books on Toyota that have been of interest to scholars of organizations, strategic management, and strategy, and to an educated lay readership alike (e.g. Jeffrey Liker’s *The Toyota Way* (McGraw-Hill, 2003), Jeffrey Liker, Michael Hoseus’s *Toyota Culture: The Heart and Soul of the Toyota Way* (McGraw-Hill, 2008)). However, because the book is on Fiat and Chrysler – and because it will be written in light of the American automotive bailout – it will fill two very specific gaps in the academic management and organizations literature.

The first gap is in the literature specifically on the automotive industry. There are no business or social scientific books in English on Fiat’s recent history. There are some important books on Chrysler, but they are either purely historical or dated. These include, for example: Charles Hyde's *Riding the Roller Coaster: A History of the Chrysler Corporation* (Wayne State University Press 2003); Doron Levin’s *Behind the Wheel at Chrysler: The Iacocca*

Legacy (Harcourt Brace, 1995); David Abodaher's *Iacocca* (W.H. Allen, 1986) on Chrysler's turnaround in the 1980s; work by Jeffrey Dyer on the company's successes in the 1990s (e.g. *Collaborative Advantage: Winning Through Extended Enterprise Supplier Networks*, Oxford University Press 2000); and Bill Vlasic and Bradley A. Stertz's *Taken for a Ride: How Daimler-Benz Drove Off With Chrysler* (William Morrow, 2000) on Chrysler's time with Daimler-Benz. Since these books were written, Chrysler was sold first to Cerberus and then went through bankruptcy.

There are also, of course, books on the crisis in the US automotive industry. Stephen Rattner's *Overhaul: An Insider's Account of the Obama Administration's Emergency Rescue of the Auto Industry* (Houghton Mifflin, 2010) gives insight into the work of the White House Task Force on the Automotive Industry, and Paul Ingrassia's *Crash Course: The American Automobile Industry's Road from Glory to Disaster* (Random House, 2010), covers the US auto industry up to the crisis, with a focus on explaining the problems and their origins. There are also surely more in press. But again, those books that have been published do not provide a look inside Chrysler and Fiat before, during, and after the merger in 2009; and, based on our knowledge of the academic and management literature, we think it is highly unlikely that there will be any competitor books with nearly the quantity of material on the case that we, in our years studying Fiat, have been able to accumulate. In other words, while existing books cast light on the root causes of problems in the US auto industry and the process behind the decisions taken by the White House, readers do not get from them a way of thinking about how to assess whether Chrysler might manage to turn around or not; and future books are very unlikely to have access to a similarly in-depth analysis of the acquiring company, which is the company that is at present less known to, and therefore more important to, an English-speaking audience.

The second gap that our book will fill lies at the intersection of the academic fields of technology and innovation management, strategic management, and organization theory. That intersection includes work that aims to understand how firms develop and maintain the competences required for successful innovation, such as, for example, Giovanni Dosi, Richard R. Nelson, and Sidney G. Winter's *The Nature and Dynamics of Organizational Capabilities* (Oxford University Press, 2000), and more recently, David Teece's *Dynamic Capabilities and Strategic Management: Organizing for Innovation and Growth* (Oxford University Press, 2009). It includes also work that aims to understand the relationship between organizational design and product development, including, for example, Dorothy Leonard-Barton's *Wellsprings of knowledge: Building and sustaining the sources of innovation* (Harvard Business School Press, 1995), and Kim B. Clark's and Takahiro Fujimoto's *Product development performance: Strategy, organization, and management in the world auto industry* (Harvard Business School Press, 1991). Finally, that intersection includes work that has sought to understand how firms leverage the competencies of external parties, such as suppliers, in the innovation process. Examples here would be: Marco Iansiti and Roy Levien's *The keystone advantage : what the new dynamics of business ecosystems mean for strategy, innovation, and sustainability* (Harvard Business School Press, 2004); Henry Chesbrough's *Open Innovation: The New Imperative for Creating and Profiting from Technology* (Harvard Business School Press, 2003); Andrea Prencipe, Andrew Davies, and Michael Hobday's *The Business of System Integration* (Oxford University Press, 2003); and Henry Chesbrough, Wim Vanhaverbeke and Joel West's *Open Innovation: Researching a New Paradigm* (Oxford University Press, 2006).

Our book is distinct from these books in part simply because we have access to unique empirical material with which to analyze multiple interlinked organizations. However, we also take an analytical perspective that combines strategic management and organization, and apply it to the task of innovation to show how new product innovation processes are managed across organizational boundaries. We offer, in short, a book that provides a Liker-style focus and depth of detail to Chrysler and Fiat, with a particular focus on considering their recent past just before they met in the 2009 merger. The goal is to show how innovation happens in a world in which organizational boundaries have been blurred, and, at the same time, to allow readers to assess the prerequisites and chances for the merger's success. What are the conditions for such a merger to work successfully? What are the organizational features that matter? How does the organization need to be adapted in order to fit the strategy adopted in a merger such as this one? No book on the market currently answers these questions.

5. Additional Information

Estimated word count: 90,000 words. About 75,000 will be text, and 15,000 will be frontmatter, notes, references and index. There will be just a few text-based tables and figures.

6. Author Information

Markus C. Becker is Professor of Strategic Organization Design at the Strategic Organization Design Unit, University of Southern Denmark. In 2006, he received a Young Researcher Grant from the French National Research Agency (ANR) to investigate innovation routines. Becker is editor of *Handbook of Organizational Routines* (Elgar, 2008), *Organizational Routines: Advances in empirical research* (with Nathalie Lazaric, Elgar, 2009), and *The Entrepreneur: Classic Texts by Joseph Schumpeter* (with Thorbjørn Knudsen and Richard Swedberg, Stanford University Press, 2011). He has edited two journal special issues, "Towards an operationalization of the routines concept", *Industrial and Corporate Change*, 2005 (with Nathalie Lazaric), and "Knowledge- and task-partitioning in the automotive industry: coordination, governance and learning in new product development in the automotive industry", *International Journal of Automotive Technology Management*, 2005 (with Francesco Zirpoli). He has written numerous journal articles and book chapters. The most relevant articles for purposes of this project are: "What Happens When You Outsource Too Much", *Sloan Management Review*, *2011* (with Francesco Zirpoli); "The limits of design and engineering outsourcing: Performance integration and the unfulfilled promises of modularity", *R&D Management*, 2011 (with Francesco Zirpoli); "Towards an Organizational Approach to Firm Boundaries", *Economia Politica*, 2009 (with Francesco Zirpoli); "Applying organizational routines in analyzing the behavior of organizations", *Journal of Economic Behavior and Organization*, 2008 (with Francesco Zirpoli); "Marketing/R&D-integration in the pharmaceutical industry", *Research Policy*, *2006* (with Morten Lillemark); "Applying Organizational Routines in Understanding Organizational Change", *Industrial and Corporate Change*, 2006 (with Nathalie Lazaric, Richard R. Nelson and Sidney G. Winter); "The impact of virtual simulation tools on problem-solving and new product development organization", *Research Policy*, 2005 (with Pasquale Salvatore and Francesco Zirpoli); "Knowledge- and task-partitioning in the automotive industry: coordination, governance and learning in new product development in the automotive industry", *International Journal of Automotive Technology Management*, 2005 (with

Francesco Zirpoli); "Organising new product development: Knowledge hollowing-out and knowledge integration. The Fiat Auto case", *International Journal of Operations and Production Management*, 2003 (with Francesco Zirpoli); "Organizing knowledge integration and co-ordination in New Product Development: The FIAT case", *International Journal of Automotive Technology Management,* 2003 (with Francesco Zirpoli). Further papers on Fiat are under review: "Division of labor and competence accumulation in complex product development" (with Francesco Zirpoli), resubmitted to *Organization Science* after "revise and resubmit".

Josh Whitford is Associate Professor of Sociology at Columbia University. In 2007, Whitford was also named an Industry Studies Fellow by the Alfred Sloan foundation for his study of manufacturing industries in the United States and Italy, and he has continued to carry out extensive field research in both of those countries. In 2010, along with Andrew Schrank, he received a grant from the National Science Foundation to study government responses to network failures, with a particular focus on the American Manufacturing Extension Partnership. Whitford is the author of *The New Old Economy: Networks, Institutions and the Organizational Transformation of American Manufacturing* (Oxford Univ. Press 2005). He has written numerous journal articles and book chapters. For purposes of this project, the most relevant articles are: "Industrial Policy in the United States: A Neo-Polanyian Interpretation" in *Politics & Society* (2009; with Andrew Schrank); and "Surviving the Fall of a King: The Regional Institutional Implications of Crisis at Fiat Auto" in *International Journal of Urban and Regional Research* (2005; with Aldo Enrietti). He is also the author of two additional papers on Fiat that are currently under review. These are: Whitford, Josh and Francesco Zirpoli. "The (vertical) network firm as a political coalition: The reorganization of Fiat Auto" (Revise and Resubmit at *Administrative Science Quarterly*); and Zirpoli, Francesco and Josh Whitford. "How inter-firm collaboration happens; and doesn't."

Francesco Zirpoli is Associate Professor of Management and Strategic Organization at the Department of Management at Università Ca' Foscari Venezia. Zirpoli is Research Associate at the Centre for Competitiveness and Innovation of the University of Cambridge and at the MIT-International Motor Vehicle Program. His research focuses on the strategic organization of innovation, make or buy strategies and supply chain management with a specific focus on the new product development process. For purposes of this project, Francesco is the author of a book published by Il Mulino, Bologna (in Italian), titled "*Organizing innovation: outsourcing strategies and learning processes at Fiat Auto*". He has edited the journal special issue "Knowledge- and task-partitioning in the automotive industry: coordination, governance and learning in new product development in the automotive industry", *International Journal of Automotive Technology Management*, 2005 (with Markus Becker). The most relevant journal articles for purposes of this project are: "What Happens When You Outsource Too Much", *Sloan Management Review, 2011* (with Markus Becker); "The limits of design and engineering outsourcing: Performance integration and the unfulfilled promises of modularity", *R&D Management,* 2011 (with Markus Becker); "Towards an Organizational Approach to Firm Boundaries", *Economia Politica*, 2009 (with Markus Becker); "Applying organizational routines in analyzing the behavior of organizations", *Journal of Economic Behavior and Organization,* 2008 (with Markus Becker); "The impact of virtual simulation tools on problem-solving and new product development organization", *Research Policy,* 2005 (with Pasquale Salvatore and Markus Becker)*;* "Knowledge- and task-partitioning in the automotive industry: coordination, governance and learning in new product development in the automotive industry", *International Journal of Automotive Technology Management*, 2005 (with Markus Becker); "Organising new product development: Knowledge hollowing-out and knowledge integration. The Fiat Auto case", *International Journal of Operations and Production Management*, 2003 (with Markus Becker); "Organizing knowledge integration and co-ordination in New Product Development: The FIAT case", *International Journal of Automotive Technology Management*, 2003 (with Markus Becker). He is also the author of two additional papers on Fiat that are currently under review. These are: "Division of labor and competence accumulation in complex product development" (with Markus Becker), resubmitted to *Organization Science* after "revise and resubmit"; "The (vertical) network firm as a political coalition: The reorganization of Fiat Auto" (Revise and Resubmit and Administrative Science Quarterly, with Josh Whitford); "How inter-firm collaboration happens; and doesn't." (with Josh Whitford).