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Turnaround and Failure:
Resource Weaknesses and the Rise and Fall of Jarvis

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Abstract

Research employing the resource-based view (RBV) has overwhelmingly focused on the upside of resources, namely those that provide benefits to the firm. However, an emerging research stream suggests that the downside of resources, namely resource weaknesses, may be crucial in gaining a greater understanding of the key factors that contribute to firm performance and the ability to turn around failing companies. We examine the infamous case of Jarvis, a firm that achieved a turnaround, but then experienced catastrophic failure. In so doing we explore the emergence of resource weaknesses, their nature and ability to combine to create a fatal organisational outcome.

Turnaround and Failure:

Resource Weaknesses and the Rise and Fall of Jarvis

Introduction

The quest to find the actions needed to turnaround a failing firm has progressed slowly and with little success. After more than twenty years since Pearce and Robbin's review of the turnaround literature, what we know about decline and turnaround is far outweighed by what is unknown and understudied.¹ In particular, little theoretical headway has been made, although a resource-based focus has been highlighted as having potential in this regard.² Turnaround research in the business history literature has tended to focus on the decline and rise of particular industries, with business evolution, rather than business revolution being prominent.³ Whilst evolutionary incrementalism is an important aspect of the corporate landscape, so too are events of a more rapid, discontinuous nature, with turnarounds providing valuable microcosms to examine such cases of dramatic change.⁴ We find the current scenario unfortunate as the skills that business historians can bring to the study of business turnarounds, encompassing a depth of analysis, contextual understanding, and an appreciation of change in the long-run, are exactly the type of attributes lacking in turnaround research.

Despite the use of historical case studies being noticeably absent in many areas of management research, in recent years a number of studies in the business history literature have sought to develop strategy (and management) theory through the use of cases.⁵ Included within this group are a number of articles employing the resource-based view of the firm (henceforth RBV).⁶ To date the overwhelming focus of RBV research has been on the set of factors that provide benefit to the firm, particularly those that may result in a

sustainable competitive advantage. In relation to turnarounds, contributions made by scholars of the small number of resource-based studies have centred on the acquisition of new capabilities or the redeployment of existing resources in-order to create resource strengths that can elevate firm performance.⁷ Turnarounds frequently involve the installation of new management, who are not entangled in the current practices of the firm, and therefore, may sometimes perceive alternative ways in which to utilise existing resources.⁸

Scholars have recently employed the RBV to explore the positive contribution of resources to firm performance with respect to turnarounds.⁹ The singular focus on the upside of resources, however, underplays the potential contribution the RBV can make to the study of turnarounds. Firm performance is dependant not just on positions of strength, but also weaknesses, and it is the interaction between these opposing factors that influence organizational outcomes.¹⁰ The small number of papers relating to the influence of resource weaknesses on firm performance have primarily been conceptual in nature, which we find surprising given the potential relevance of the concept of resources weaknesses to assist our understanding of turnarounds.¹¹ Relatedly, Trahms et al. argue that investigation into resources that detract from a firm's ability to generate rent may be crucial in understanding limitations to the ability of a firm to turnaround. Furthermore, Trahms et al. argue that in order to understand more about corporate turnaround, fine-grained analysis is required that not only examines instances of sustained turnaround, but also cases where the final outcome is one of failure, with the firm being forced to cease trading.¹²

To address this research gap we explore the characteristics of resource weaknesses that may hinder and prevent a sustained turnaround, ultimately leading to business demise, through a longitudinal case study of Jarvis. In so doing, we build on the work of West and

DeCastro, who highlight the nature of resource weaknesses and inadequacies, but call for future developmental work, believing that the idiosyncratic nature of weaknesses and their evolution over time requires rich case studies and longitudinal research in order to help explore the origins and categories of resource weaknesses. In their conceptual work, West and DeCastro propose that weaknesses must be rare with respect to both industry and the firm within its strategic context. A firm may exhibit a certain kind of weakness, but if unrelated to strategic context and behaviour, it would not be a critical point of weakness. In developing this further, West and DeCastro point out that weaknesses may become more pronounced if either firm strategy or industry changes take place, thus making their presence salient.¹³ We explore the type of strategic change that may result in resource weaknesses becoming more salient, and therefore more dangerous, to the performance of the organization.

Closely linked to the work of West and DeCastro, Arend's conceptualization of weaknesses as strategic liabilities draws on Barney's RBV tenets (valuable, rare, inimitable and non-substitutable) to define strategic liabilities as those resources that damage and destroy a firm's ability to generate rents. They are "firm factors that are costly, supply-restricted (scarce and economically inconvertible) and appropriated (economically non-transferable)",¹⁴ with reasons for economic inconvertibility being similar to those for economic inimitability and non-substitutability, arising due to characteristics such as immobility, inseparability, and path dependency.¹⁵ Resource stocks cannot be changed instantaneously, an argument that may pertain as much to resource weaknesses as it does to resource strengths. The dismantlement of a firm's resource weaknesses may, therefore, only be effectively accomplished over a period of time.¹⁶ It follows that for a struggling

company trying to improve performance, the nature and severity of the firm's resource weaknesses may be critical to the chances of turnaround or failure.

Arend suggests definitions of performance-related characteristics of strategic liabilities that mirror those that have evolved for strategic assets: Firms with more strategic liabilities perform worse; a strategic liability that fulfils the relevant characteristics more fully affects its owner's performance more unfavourably; and firms with strategic liabilities that are complementary and firms without offsetting strategic assets, performance worse. Arend continues briefly to suggest that where complementary strategic liabilities exist, costs to the firm are higher than if the two liabilities existed separately. Whilst the notion of complementary resource weaknesses is clearly intriguing, further discussion, examination and development of these factors fall outside the scope of Arend's research.¹⁷ To this end we heed Sirmon et al.'s call to explore the concept of complementarities between resource weaknesses, exploring how they may arise, the nature of interactions between resource weaknesses including how they may combine and reinforce one another over time, and their potential impact on firm performance.¹⁸

In summary, our research has three clear objectives. First, we seek to make a theoretical contribution to the study of turnarounds, an area where theory has been noticeably lacking to date, employing the RBV and in particular the concept of resource weaknesses.¹⁹ Through a detailed analysis of the case of Jarvis we explore the factors that may hinder or prevent turnarounds, ultimately leading to business failure.²⁰ In so doing, we seek to develop insights into the type of categories and characteristics of resource weaknesses, addressing calls for future research by scholars of resource weakness, and turnarounds.²¹ Second, it has been argued that strategic change may result in particular resource weaknesses becoming more salient and hence more damaging to the firm.²² We examine the potential for

resource weaknesses to become more damaging over time, through which we explore the type of strategic actions that can increase the relevance and liability of resource weaknesses to management. Third, the concept of complementarities between resource weaknesses has been highlighted as an area warranting further investigation.²³ We explore the potential complementarities between resource weaknesses, and examine how they may have highly destructive consequences for organizational performance.

Method and data

Our research design consists of four main stages of activity. First, we engaged in purposeful case selection. Jarvis has previously been identified as a turnaround firm, moving from three years of poor performance to three years of high performance, measured by changes in ROCE relative to both industry participants and firms across the economy during the period 1989-2003.²⁴ Given the high level of publicity in the company, we were also aware that Jarvis had been forced into administration a number of years after the turnaround. In charting the ongoing performance of the firm since 2003 it became clear that Jarvis had accumulated critical weaknesses that had led to a catastrophic fall. Jarvis, therefore, provided a valuable case in which to examine the reasons why a business that had achieved the rare label of turnaround, was unable to sustain the improved performance. By the time of its demise, Jarvis had become a toxic company in the eyes of media commentators, with destructive weaknesses.

Second, we constructed a historical case for Jarvis gathering data for a twenty-two year period (1989 to 2010 inclusive), drawing from a plethora of sources. Whilst annual reports provided useful information, there was a need to search much more widely in order to gain a richer detail about the company, triangulate evidence and obtain intelligence that those

leading the organisation may not have been inclined to share. The case of Jarvis was one of particular public sensitivity in light of the company's links to the Potters Bar train crash tragedy and therefore it is probably not surprising that interviewees from within the company at the time, nor those associated with its subsequent insolvency, were not forthcoming. Likewise, despite an exhaustive search across UK archives, no record of internal documents was available for consultation and contact with the firm's insolvency practitioners also provided no awareness of internal documents being kept for the company. Despite this absence, a myriad of other valuable sources were available, far more plentiful than our early hopes. Financial press, other broadsheets, trade journals, academic journals, business magazines, investment analyst reports, government investigations and reports, client reports, insolvency report to creditors, books and web-based publications were all consulted. Source criticism constitutes a key element of historical methodology and as per the guidance of Kipping, Wadhvani and Bucheli, we sought to establish source validity, credibility, and expectations of source transparency. This process is "designed to allow researchers to understand not just what a source tells us about a development or topic of interest, but also the *limits* on relying on that particular source".²⁵ Sources produced by different authors with different motives and perspectives constitute an important part of historical research procedures for overcoming the limitations identified for a particular source. In evaluating the various data sources, we maintained an awareness of the conditions and intentions that may have underpinned their creation, seeking to provide a critical engagement with the records of the past. In assessing the observer we drew on the recommendations of Howell and Prevenier, questioning to what extent was the author's report selective? What particular kinds of things would have interested this author? What events or nuances would the author have been likely to ignore? What prejudices would have informed the account?²⁶

The financial press provided a particularly prominent source in the study, especially in light of its influence on the resource weaknesses that developed in the firm. Company annual reports also contained a wealth of valuable data. Both sources, however, required a degree of caution in their analysis. We were fortunate to be able to draw from government commissioned reports that interviewed all Jarvis clients, as well as investigations undertaken by the clients themselves. Sometimes this data provided supportive triangulation of evidence, but occasionally revealed instances that jarred with those presented in the press or other sources, which we openly then subjected to further critical evaluation in the text, enabling a more nuanced appreciation of the resource weaknesses and the effects of their interactions to emerge.²⁷ Given the acquisitive nature of Jarvis, it was often necessary to perform similar searches for purchased organizations, therefore providing further detail, including an appreciation of capabilities brought to the group. In Gephart's terms, we were able to collate "a substantial archival residue" from the different published sources.²⁸

Third, we analysed the data consistent with Langley's approach to longitudinal research.²⁹ First, a timeline and narrative concerning the development of Jarvis was constructed, as presented in figure 1. Second, temporal bracketing was undertaken, identifying two distinct periods for the organization. The periods were separated by a major break, hence permitting "the constitution of comparative units of analysis for the exploration and replication of theoretical ideas".³⁰ We present the historical narrative in the next two sections. Period 1 captures the turnaround of Jarvis; and period 2 examines the decline and failure of Jarvis.

FIGURE 1
Jarvis Timeline 1850-2010

Year	Key Events
1850	Jarvis founded as a building and decorating business
1959	Becomes a public company
1986	Last family member retires Operations across the UK undertaking medium-to-large-sized construction projects
1990	Acquires Shephard Hill civil engineering business
1992	Significant project delays Losses of £3.7m and cash call via rights issue
1993	Realisation of major pricing errors
1994	New CEO appointed News strategic plan put to shareholders – shift to construction services and niche focus
1995	Workforce cut by one-fifth
1996	Purchase of Northern Infrastructure Maintenance Company (NIMCO)
1998	Acquisitions: Relayfast and Fastline in rail, Streamline in roads.
2000	Market leader for school PFI work Contracts signed for capital value £242m with estimated £1bn whole life cost over 25-30 years.
2002	Potters Bar rail crash Legal action started against Railtrack and Jarvis by victims
2003	Kings Cross express train derailment Network Rail announced Jarvis management team to be subject to ‘special audit’ Jarvis announced it will quit track maintenance work Delays to schools’ work hits national news CEO announced he will step down Scaling back of refurbishment work with aim to focus on new builds
2004	Teachers’ union campaign against contract being awarded to Jarvis Turnaround consultants brought in Retrenchment plan initiated £256m loss announced Major FT article on Jarvis troubles BBC Money Programme on Jarvis Flagship Lancaster University project delayed and accusations of poor workmanship CEO resigns Plans to exit PFI work Roads unit sold Sale of Tubelines stake Debt for equity swop
2006	Focus on track renewal and plant hire Failure to find buyer for 31 facilities management contracts
2009	Fifteen percent of workforce cut in reaction to failure to capture new work
2010	Failure to secure agreement with lenders Company forced into administration

Finally, we used the two time periods as comparative units of analysis for the exploration of theoretical ideas. In exploring the turnaround and subsequent failure of Jarvis we

engaged in a process of theorization, meshing together both inductive and deductive reasoning. In doing so, we moved back and forwards between the theory and the data, linking our inductive ideas with existing concepts and frameworks.³¹

Turnaround and failure: The case of Jarvis

We present the case of Jarvis in the next two sections, and then progress to our theorization of the case in the discussion section.

Period 1: The turnaround of Jarvis

Jarvis was founded as a building and decorating business in Shoreditch, London, by John Jarvis in 1850. The company gradually expanded its building activities in the 1920s and 30s, undertaking a range of projects, from underground stations and municipal garages, to factories and offices, seeking to build a reputation for high quality workmanship sufficient to increase its client base.³² Jarvis became a public company in 1959, with the Jarvis family still actively involved and eager to further grow the business. Profits of £43,000 in 1961 had increased to £118,000 by 1968, and a decade later had risen to £519,000.³³ As per the experience of many in the construction industry, there were also challenging years. Sir Adrian Jarvis noted the difficulties of maintaining returns in periods of full employment in the 1960s.³⁴ Similarly challenging were periods of recession in the 1970s, where margins fell to less than 2%.³⁵ With low gearing and often substantial cash resources, the firm weathered these adversities and continued to increase its work-flow, recording a profit of over £700,000 by the early 1980s.³⁶ By the time the last family member retired in 1986, Jarvis had grown substantially from its London origins, primarily undertaking medium to large-sized construction projects for a wide spectrum of clients across a much larger

geography, but now also encompassing a property development and investment business. Seeing opportunities for further expansion, Mr H. Bard, a London property investor, together with his venture partner, Mr M. Rueben, acquired a controlling interest in Jarvis in 1987, bringing new board members and an aggressive expansion plan for the company, aimed at rapidly creating a national construction capability, both by organic and acquisitive growth. They were joined by Patrick Rogers in 1988 to further this strategy, moving from his corporate finance and investment research position in the City.³⁷ Within eighteen months Jarvis had already doubled in size and the new approach had not gone unnoticed by industry observers: “Throughout the recession, Jarvis has gained a reputation as a vulture company poised to pick up the pieces of broken companies. From the outside it may seem as if Jarvis is hell bent on building an empire while the going is good”.³⁸ Acquisitions such as Auldyn Building and H. Webb construction expanded geographical coverage, whilst the company also expressed a desire to add complementary construction skills to the business, taking advantage of the recession to buy failed companies from the receivers.³⁹ In 1990 Jarvis acquired both a shop-fitters and a civil engineering firm. Whilst the new Chairman had stated his intention to grow by both organic and acquisitive growth, in reality it was the latter that was the primary driver of the expansion. The acquisition of the Shephard Hill civil engineering business, with a turnover of £53m, substantially extended the productive opportunity set of Jarvis, with expertise added to the group in roads and bridges, water supply and treatment, dams and reservoirs, and coastal defence works.⁴⁰ Shephard Hill’s failure had been triggered by the collapse of one of its bankers, to which it owed £4.5m, but despite the harsh recessionary climate, the performance of the civil engineering business was soon helping to offset some of the poor returns from Jarvis’s construction operations, with the group achieving a pre-tax profit of just £238,000 in 1991.⁴¹

The following year saw group performance fall significantly further, with losses of £3.7m resulting in a cash call via a rights issue. Demand was failing to match the new scale of the construction operations and with a shortage of work, turnover fell from £119.7m to £92.1m and excess capacity resulted in the announcement of redundancies. Problems with existing contracts were in evidence, with delays to three projects exacerbating the financial woes. A year later, little improvement had been made, with losses of £3.15m and delays to major contracts in both the building division and civil engineering works being cited as contributory factors. From a relatively conservative company, with net borrowings of just 11% of shareholders' funds, rapid expansion had led to a scenario that in 1993 a rights issue was needed to improve liquidity.⁴² Jarvis was also feeling the impact of errors it was now making in its aggressive pricing of contracts:

“...contracts are only won if optimistic assumptions are made about progress, productivity, ground conditions and the weather. Inevitably, some of these assumptions prove to be incorrect, but the attainable margins are insufficient to cover the risk of this occurring and the anticipated positive contribution turns into a significant loss which has to be financed, even if there is an expectation of an eventual improvement. The company had to contend with a number of such contracts during the year.”⁴³

With financial pressure quickly mounting, Jarvis needed a turnaround. Changes in leadership were initiated with a new CEO and investor recruited, Paris Moayed, coupled with three new directors.⁴⁴ As the company announced losses of £4.9m in 1994, a new strategic plan was put to shareholders, comprising the following key elements: (i) rationalisation of construction businesses and a shift to becoming managers of construction services; (ii) development of niche markets, through Jarvis Projects, including education and healthcare, by offering construction-related professional services; and (iii) overhead reductions. Integral to the measures was the conversion of the £3m overdraft facility with

National Westminster Bank into a five-year loan and an additional £1.2m being made available to the company via a new overdraft facility.⁴⁵

With immediate effect, a re-organization ensued, with numerous construction offices closed, new senior management appointed, a reduction in the total workforce of almost one-fifth, and a concerted effort to win new work, resulting in an increased order book. Efforts were soon rewarded with a modest profit of £510,000 in 1995, but more dramatic changes were on the horizon. Five years prior, Jarvis's purchase of the civil engineering business Shephard Hill from the receivers had opened up new opportunities for the group. Shephard Hill's skill base in road schemes, bridges and water supply, had been cited as important capabilities associated with the acquisition. One of these areas, the construction of bridges, had led to a number of projects being undertaken for Railtrack, including bridge, station and platform building work. By 1995, "rail schemes" had been added to the list of niche markets that were the focus of the civil engineering division.⁴⁶

While just a small part of the overall group at this time, the link with the railways soon took on a whole new magnitude. Shares in Jarvis rose by 40% in May 1996 with an announcement that the company had purchased a railway maintenance company, backed by a rights issue. The Northern Infrastructure Maintenance Company (NIMCo) was the last of the seven regional infrastructure companies to be privatised by the UK government and undertook most of its work for Railtrack. The £9m purchase price appeared highly attractive, with contracts in place lasting for three to five years and generating operating profits of £14.8m on a turnover of £126.4m.⁴⁷

Within just two years of assuming leadership of Jarvis, Paris Moayedhi had facilitated a repositioning of the company and now stated his intention to focus on expanding the facilities management business and finding efficiencies in the railway track maintenance

division.⁴⁸ Amidst the euphoria of the deal, Jarvis's management acknowledged "we do have a lot of our eggs in one basket with Railtrack".⁴⁹ Further acquisitions in the proceeding two years bolstered the rail business. To supplement the railway infrastructure operations, a track renewal capability was acquired via the purchase of Relayfast and Fastline, giving the group the ability to maintain and renew track anywhere in Britain.⁵⁰ Relayfast also brought with it heavy plant resources and the combined companies gave Jarvis such a commanding position in the track renewals business that the takeover was only approved by the Monopolies and Mergers Commission on condition of Jarvis hiring out equipment to other operators.⁵¹ By 1998, turnover was up to £355m, with profits amounting to £37m.⁵²

Expansion wasn't just restricted to the rail business. A dispute between Railtrack and Jarvis over pricing had provided a warning signal that helped fuel a desire to try and avoid an over-reliance on rail. Railtrack had argued Jarvis's prices were up to six times higher than those of other contractors for similar work and had threatened to suspend Jarvis from bidding on other projects unless it cut its prices.⁵³ Within hours of the disagreement going public, both sides said they had resolved their differences and looked forward to "continuing their constructive relationship",⁵⁴ but the event had provided a stark example of the potential consequences of any fallout with their dominant client.

In 1998, Jarvis acquired Streamline Holdings for approximately £185m. Streamline's specialist road service businesses in the UK and Europe were viewed as complementary to Jarvis's operations in the rail sector and provided an opportunity to help create a broader transport infrastructure company.⁵⁵ While the track renewal businesses had been considered as a good deal for Jarvis, reuniting the maintenance and renewal operations of railway infrastructure that had been split from each other as part of the government's privatisation programme, Streamline was regarded by analysts as a "full-price" purchase,

with Moayeddi left justifying “you cannot get a bargain buying a public company in a niche market which is producing margins of 10 per cent”.⁵⁶ Within a period of around four years, the market capitalisation of Jarvis had gone from about £10m to close to £1bn.⁵⁷

In addition to the railway and road businesses, Jarvis was also making progress towards becoming a more “niche-focused” construction operator, both in the education sector and healthcare.⁵⁸ In particular, Jarvis was having considerable success in winning bids to build and maintain schools, as well as contracts for the construction of university student accommodation. The company was becoming highly adept at seizing Private Finance Initiative (PFI) work, even creating a specific PFI unit to deal with the increasing number of opportunities in the area.⁵⁹ By 2000, Jarvis had become the market leader for school PFI work, securing eight of the nineteen contracts that had become available, and bringing Jarvis’s total school facilities projects to 47. Contracts signed in the year 1999 to 2000 had a combined capital value of £242 million and estimated at nearly £1bn in terms of whole life costs over 25-30 years.⁶⁰ Although the scale of activity was now stretching the company’s operational capacity beyond its limits, requiring a much greater reliance on sub-contractors, the success rate of the division was much lauded, moving from initial submission to preferred bidder status in 43% of cases.⁶¹

The Chairman commented in 2001: “The success of Jarvis’s strategy is demonstrated by the number of significant contract signings and our appointment as preferred bidder on other major projects during the year”.⁶² The growth of Jarvis Projects, coupled with the Streamline acquisition had helped to reduce the dominance of rail within the company, with the Chairman now referring to the group as a “well-balanced portfolio of high-added value services”.⁶³ The CEO, Moayeddi, emphasised the change process from “high risk, low margin” general contracting to “high tech, lower risk operations where price is not the only criterion

for selection”.⁶⁴ The evidence suggested that Moayedhi had achieved a substantial turnaround in performance, elevating Jarvis’s return on capital from amongst the poorest to one of the highest relative to both its industry compatriots and firms across the economy.⁶⁵ As further PFI and railway work poured in during 2001, some commentators viewed the “specialist” Jarvis shares as having significant potential.⁶⁶

Period 2: The decline and failure of Jarvis

In May 2002, a train travelling at high speed derailed at Potters Bar station, killing seven with over 70 injured. The track in question was part of Jarvis’s maintenance contract and the company quickly raising the possibility of sabotage on the line as a potential cause, an argument later rejected by the Health and Safety Executive.⁶⁷ Despite Jarvis’s efforts to diversify the business, rail still counted for £303m of the £677m turnover and shares in the company reacted with a fall of 22% in just two days due to concerns over potential liabilities and the impact on future maintenance work.⁶⁸ One analyst commented “we don’t necessarily know with these contracts or any other contract where the buck stops for a major disaster”.⁶⁹

As turnover increased to £949m and profits to £46m in the year to March 2002, with Jarvis’s Chief Executive and Chief Operating Officer benefiting from cash pay rises, news of the company in the press was turning increasingly hostile.⁷⁰ By the end of 2002, victims of the crash had already started legal action against Railtrack and Jarvis, and then in May 2003, an official report by the Health and Safety Executive stated the cause of the crash to be the result of a failure of points that were in poor condition and had been poorly maintained.⁷¹ Network Rail, which had by then taken over Railtrack’s role, announced it was “fundamentally altering the way rail maintenance is done in the UK”.⁷² Jarvis’s reputation

suffered again when a derailment of an express train at London's King Cross station occurred in September 2003. Jarvis explained that the accident occurred because its staff failed to disconnect equipment that allowed trains to be routed over a piece of track removed during maintenance. The event bore similarity to an incident with a freight train near Rotherham the previous November, again a track maintained by Jarvis. Whilst there were no injuries, the accident caused further reputational damage to Jarvis and Network Rail announced they would be subjecting Jarvis's management to a special audit concerning the firm's working practices.⁷³

On October 10 2003, Jarvis announced it would quit track maintenance work, the CEO commenting that "the reputational risks that are associated with this business for Jarvis overshadow the very successful other parts of the business".⁷⁴ A timely announcement that Jarvis had won the UK's largest student accommodation contract (£339m), to build and manage rooms for Lancaster University, came as a welcome relief to the market. Accommodation services had quickly risen to account for around one-third of group turnover in the previous year, with Jarvis being the market leader for outsourced accommodation, a portfolio that included contracts to provide rooms for about 20,000 students, accommodation for schools, the NHS, local authorities and many more. Citing a forward order book of £4.2bn, albeit including projects at the preferred bidder stage, there were high hopes that the division would drive considerable future growth for the company.⁷⁵

Whilst Jarvis's executives had hoped the exit from rail maintenance would see Jarvis escape from being a regular feature of the news headlines, they were mistaken. In November 2003, Jarvis was in the news again concerning delays to a PFI project that had resulted in five schools opening a week late for the start of term, with further work

outstanding.⁷⁶ Although an inconvenience, in normal circumstances the event may not have been worthy of national print, but as one journalist commented “since the rail accidents, any problem with a Jarvis contract, from schools to the underground, had been headline news”.⁷⁷ A shareholder noted “it has become difficult to work in a spotlight”.⁷⁸ Pressure started to mount from some investors for Paris Moayedı to stand down, whilst others were less convinced that this would be enough to repair reputational damage. One analyst stated “the name Jarvis is the biggest liability rather than Paris”,⁷⁹ while another analyst emphasised “the press pressure on Jarvis has got to the point where it is affecting the business”.⁸⁰

Jarvis was starting to find it harder to win contracts and following a board meeting, an announcement was made that Moayedı would step down and Stephen Norris, a former Conservative Transport Minister, would become Non-executive Chairman.⁸¹ In the same month, Jarvis announced it was scaling down school refurbishment work to concentrate on new-build school contracts after running into a number of problems on existing sites. The Chief Executive of Jarvis’s Accommodation Services explained that refurbishment projects were “by their very nature risk-heavy and you can say that the extent of the risk has been learned from experience”, referring to the delays to the Wirral schools and a similar experience at schools in Kirklees.⁸² The extent of hostility towards the company was highlighted further by a Derby teachers’ union campaign against a PFI contract being awarded to Jarvis, with the union saying “We are opposed to privatisation in principle. But within the process that exists in Derby ... we are absolutely opposed [to Jarvis being awarded the contract]. We are more opposed to Jarvis than others”.⁸³ The representative went on to say they were opposed to Jarvis mainly due to the company being at the centre of an investigation into the Potters Bar rail crash, but also because of delays on other school

PFI contracts.⁸⁴ The PFI project manager at the Council stated “it would be foolish in the extreme to pretend that the council is not aware of some of the publicity that Jarvis as an organisation attract”.⁸⁵ At a University of Lancaster Council Meeting, reference was made to the implications for Jarvis of the recent rail crash at Potters Bar. Noting that the company would be fully aware of the force of public perceptions and that “this should be taken into account by the negotiating team in deciding what had to be accepted on behalf of the university.”⁸⁶

Jarvis was beginning to look as though it was in a financially precarious position.⁸⁷ The company had become highly dependent on front-end cash flow from new contracts and as new business dried up, so did this cash flow.⁸⁸ The settlement of a major claim with Network Rail, coupled with provisions made against problems in the accommodation services division meant that banking covenants would be breached. A new CEO, Kevin Hyde, argued for a dramatic shift away from the company’s aggressive growth strategy, putting forward a plan for retrenchment around core operations and cost reductions. A fundamental review of all activities resulted in a recovery strategy, which was to: (i) implement strategic disposals to reduce debt; (ii) exit non-core activities; (iii) focus on core infrastructure services; (iv) recover outstanding debts; (v) reduce the cost base; and (vi) scale back and exit higher risk activities.⁸⁹ The core and non-core businesses of Jarvis are presented in table 1.

TABLE 1
The core and non-core businesses of Jarvis in 2004

	Core	Establish	Non-core
Rail	Track renewals Signals & projects Train operations	Rolling stock maintenance Freight haulage International sales	Rail maintenance On track plant Tube lines Estonia Ultramast Rail training
Roads	Highway maintenance Prismo Optima Fleet management Small plant hire	USA sales	Prosign Veluvine Traffiroad TWS Laybond
JAS	PFI project integration Facilities management		Construction David Wylde Project Finance Asquith Jarvis PatientFirst Property Chapel Wharf JMPC JTM
Central	Property management		Braddons Agilisys

Source: Annual Report, 2004, p5.

To assist with the change effort, the board appointed a Chief Restructuring Officer (CRO) from the turnaround and restructuring specialists, AlixPartners. The CRO spent four weeks identifying the causes of distress, which were diagnosed as: (i) an unnecessarily complex business portfolio; (ii) inadequate control systems; (iii) inadequate liquidity; (iv) a “revenue-oriented” contract portfolio; (v) dangerous levels of management turnover; and (vi) excessive debt and contingent liabilities.⁹⁰ Additional AlixPartners consultants were brought in to assist in the turnaround, including a crisis manager to oversee daily operations, a consultant tasked with responsibility for treasury operations, and a consultant with expertise in construction management to assess the true financial state of active building projects and estimate how much money would be required to bring them to completion.⁹¹

Negotiations with lenders and other stakeholders gave the company a life-line, while the sale process of dozens of non-core assets ensued. 2004 saw Jarvis deliver a loss of £256m.⁹²

A key problem for Jarvis concerned the PFI contracts it had entered into. The company's success rate at moving from submission to the award of contract resulted in a winner's curse, with aggressive pricing meaning that assumptions tended to be overly optimistic and sufficient due diligence frequently lacking. Risks were consistently underestimated and the resultant under-pricing left Jarvis locked into unattractive contracts that would cost the company for years to come.⁹³ The case of Kirklees schools provided an all too familiar story for the company. In bidding for work, Jarvis had failed to conduct any surveys beyond those provided to them by the council's Estates and Property Services, which were "neither intensive nor intrusive".⁹⁴ The bid by Jarvis Projects was recommended to the panel as the most affordable and the only one that represented value for money.⁹⁵ Jarvis had bid £96.2m compared to the other bids of £115m and £119m. It was noted in a later report, commissioned by the council, that given the unlikely scenario that Jarvis had taken the contract as a loss leader, they had underestimated the true costs and had massively under-priced the work. At the time, the panel had been informed that although Jarvis were PFI market leaders, their expertise was in new-build and not refurbishment. There were other contractors at the time that specialised in construction refurbishment projects of this nature, but they had not applied to be put on the tender list.⁹⁶ The construction phase had started slipping relatively early: "alarm bells about the contractor's performance had begun to ring as early as 3 or 4 months into the project".⁹⁷ Schools also commented on the poor quality of the workmanship, materials and finishes, which was put down to the contractor's under-pricing and financial difficulties.⁹⁸

Further bad publicity came from a substantial Financial Times article, detailing the trail of delays and dissatisfaction concerning Jarvis's accommodation services projects. The problems that had been present the pre-turnaround Jarvis, including poor risk assessment, delays, quality issues and consistent under-pricing, were manifest again. In addition to a plethora of school blunders, the article also raised awareness of Jarvis's problems with university student accommodation contracts, including its flagship contract with Lancaster University, again delivered late amidst calls of shoddy workmanship. Whilst the head of Accommodation Services resigned, accusations of late payments to subcontractors damaged credibility further, and in the Financial Times report, as in virtually every other news story, the name Jarvis was followed by a line reminding readers that this was the company at the centre of investigations concerning the fatal Potters Bar rail crash. Recognising the liability in its name, Jarvis attempted to rebrand some of its subsidiaries bidding for PFI work, using "Engenda" for new schools and healthcare projects, but a BBC Money Programme report suggesting Jarvis faced construction losses of over £5m on the refurbishment of just five schools, provided further bad publicity. The press reports of errors made by Jarvis in their PFI construction activities could not be denied with respect to their accuracy, with client and government reports echoing many of the failings.⁹⁹

In hindsight, however, the press intensity and ferocity directed towards the construction operations of the company may have been particularly severe when examining the performance of Jarvis in relation to other PFI construction companies. A study commissioned by the Department for Education and Skills into PFI projects post-contract signing, interviewed all schools where Jarvis had been lead contractor. Surprisingly, despite the high level of negative publicity, satisfaction scores for projects where Jarvis had a lead role were slightly higher than the average, both for the buildings and services. Lower

satisfaction levels were recorded for pricing variations, whereby Jarvis was suspected of elevating pricing of contract variations, a likely attempt to claw-back monies lost from their under-pricing of the main contract. Criticisms were also levelled at the poor integration of bidding, construction and facilities management businesses.¹⁰⁰ The findings of the investigation were barely reported at the time, but are worthy of considerable note. At a time when media reports of the failings of Jarvis and its construction activities were at their height, presenting an image of a dysfunctional firm and the laggard of its industry, actual satisfaction ratings with both its PFI buildings and services were above average. Regardless of the performance of the company relative to its peers, the public image of Jarvis meant that new projects were becoming almost impossible to acquire. The Jarvis brand was now a major resource weakness and the “unusually low success rate in winning PFI projects” was now creating further unrecoverable bid costs.¹⁰¹

Turnover in the top management team increased with the resignation of the Finance Director and then the new Accommodation Services Chief Executive, the latter having only been in the post for five months.¹⁰² After three profit warnings in as many months, a further write-off of £156m was announced, with questions now being raised as to the likely survival of the group.¹⁰³ Politicians were quick to iterate that there would be no public sector assistance for the company.¹⁰⁴ Shares had been commensurately falling as worries grew, losing 80% of their value within six months.¹⁰⁵ Despite Jarvis’s struggle, shares in other large PFI construction companies remained surprisingly firm, with analysts believing that poor management, rather than poor opportunities, to be culpable for the failure. This viewpoint was supported by national concerns that many of the construction companies undertaking PFI work were doing so at excessively high margins, making the losses of Jarvis even more embarrassing for the company.¹⁰⁶ One analyst commented “PFI gave them [Jarvis] an

opportunity to grow very, very quickly, and they grabbed that opportunity too aggressively.”

One competitor noted “Anybody who has been bidding for school contracts often found themselves second to Jarvis [because they were offering lower prices]”.¹⁰⁷

The scenario was now very different for Jarvis, with potential clients looking at a much wider picture. Fife council in Scotland chose to revoke the company’s status as preferred bidder on a £177m contract to build and maintain ten schools, a particularly worrying sign given that the recent recovery plan was built on the assumption of retaining existing clients and continuing to win new contracts. The project solicitor at the council stated that Jarvis’s financial position and the fact that its restructuring plan could not be resolved within the time-table envisaged for the project, had prevented Fife from reaching final agreement on the contract. Meanwhile, further delays in the handover of university accommodation accompanied an announcement that Jarvis would not be bidding for future work in the area, with the team responsible for bidding for PFI projects being sold.¹⁰⁸

Introduced by the Conservative government in 1992 then expanded by the Labour government after 1997, PFI had been intended as a way to harness the private sector’s efficiency, management and commercial expertise to bring greater discipline to the procurement of public infrastructure. PFI essentially enabled a shift of funding and management of public sector projects to the private sector to enable rapid improvement of public infrastructure without politically unacceptable tax rises. The initiative aimed to transfer appropriate risks to the private sector and focus on the whole life costs of projects.¹⁰⁹ By 2001 over 350 PFI projects were under consideration.¹¹⁰ Despite the clamour for work, many in the construction industry had concerns from the outset, with a survey of builders and civil engineers viewing the excessive shouldering of risk by the private sector as their number one concern.¹¹¹ For many large contractors, the size of the PFI market was too

large to ignore, but not large enough to be a single source of business. In addition, the sporadic nature of PFI projects, their variability in size, scope, and balance of construction and operations, coupled with long gestation periods and risk of government regulatory changes, created a degree of unpredictability for contractors.¹¹² Bid costs were also a consideration, being much higher than for traditionally tendered work due to the complexity and longevity of contracts.¹¹³ Despite the risks, many construction firms bid for PFI work in the hope of obtaining higher levels of profitability and long-term income streams.¹¹⁴ Whilst the profitability of PFI for the private sector has been subject to considerable debate, research has suggested that for many firms, PFI projects have provided attractive returns, placing pressure on government to be more aggressive in negotiating contracts.¹¹⁵ Whilst many profited, however, Jarvis was not the only construction firm to get into difficulties through its PFI projects, with Sir Robert McAlpine, Ballast UK and Metronet being other exemplars of firms beset by cost overruns and delays.

For Jarvis, the disconnect between the PFI bidding team and the rest of the business was mentioned by numerous Jarvis clients in the DfES investigation, making proper risk assessment of projects a rarity.¹¹⁶ A Jarvis staff member acknowledged that even if the company had failed to find a buyer for the PFI team it would be “going come what may”.¹¹⁷ An ill-considered incentive scheme had also meant that the PFI team were rewarded for deals done, without due consideration of adequate margins. The result was a team adept at winning work, but at prices and risk levels that damaged the future health of the organisation. The future cash flows from many of the company’s investments in school PFI and university projects were sold for a loss of £6m.¹¹⁸ Recognising the errors in governance, the company announced it would combine the bidding, construction and facilities management functions into a single entity, operating out of a single location, but it was a

move already too late in the decline. The new board initiated a review of internal control processes and procedures, with the resulting observations that the company had significant shortcomings in the information provided to the board concerning the key features of significant transactions and insufficient independent review and challenge of complex commercial, legal and contractual issues. In particular, poor appreciation and handling of risk was raised, with new systems designed to embed risk identification and evaluation within the operational process of the organisation. Heads of each operating division would be required to report monthly on key risk matters and the agenda of the executive committee would be revised to separately address risk considerations on a regular basis.¹¹⁹

By the end of 2004, the CEO in charge of the turnaround effort had also resigned. Of the nine directors listed in the 2003 Annual Report, only two now remained. The news that five executives who had left the firm received bonuses of £800,000 for the year in which the Potters Bar crash occurred, further dented an image that was now looking far beyond repair.¹²⁰ To make matters worse, the incoming CEO, who had undertaken an urgent review, announced that the financial situation was worse than expected, with total group cash outflow likely to be £80m higher than previously forecast. The Chairman warned that a substantial proportion of the proceeds from ongoing asset sales would now be needed for working capital rather than for debt repayment. Shares tumbled a further 60% on the news to 13p, a sharp contrast to the 575p price obtained just over two and a half years prior. The company was now in a vicious circle. With sub-contractors not getting paid, work was grinding to a halt, therefore, incurring financial penalties for failing to meet deadlines.¹²¹

With debts standing at an estimated £240m, strategy was changing by the week. In December 2004, plans were detailed to exit all PFI work and concentrate on plant hire and building roads and railways for Network Rail and local authorities. Less than two weeks

later, the roads unit had been sold for £24.5m.¹²² Further efforts to improve corporate governance were made, “focusing directly on the shortcomings of processes and procedures that led the Company to its current position”, with risk analysis being a key factor in the committee’s work.¹²³ Pre-tax losses widened to £354m in 2005, but the sale of a one-third stake in Tubelines, a private consortium to manage, maintain and upgrade a third of the London Underground network, and then a debt-for-equity swop, provided a further life-line for the company, with shareholders giving up 95% of their ownership in exchange for the £350m of debt. A more manageable balance sheet emerged with a net debt of £22.2m. The company bonus scheme was suspended for 2005. Ironically the bonus scheme had been based on objectives that included profitable forward order book growth and effective risk management, both features that had been markedly lacking in prior executive performance, despite bonus payments being made.¹²⁴ As part of the corporate governance review, further changes were made to the processes aimed at evaluating business risks, with risk management reviews being incorporated into the whole commercial “tender to delivery” process.¹²⁵

By early 2006, the business focus had shrunk primarily to track renewal and plant hire, the winding down of the construction business helping to stem the cash outflow, although Jarvis had yet to find a buyer for 31 of its facilities management contracts, five of them loss-making.¹²⁶ Ironically, following the rash of disposals, the rail sector now accounted for the majority of turnover once again at approximately 65%.¹²⁷ As some saw Jarvis “emerging from the intensive care ward,” the fragile state of the company was still of concern.¹²⁸ The exit of the CEO that had been at the helm of the latest restructuring did little to calm fears and the future was now pinned on the rail business being chosen as one of four major contractors appointed by Network Rail for significant track renewal work.¹²⁹

To the surprise of some, Jarvis was selected as one of the four, but the promise of an immediate uplift in activity was short-lived. Network Rail announced its intention to increase overall renewal volumes in the medium term, but reduce volumes in the short-term, unfortunately a critical time for Jarvis. Management reacted to the news by cutting 450 staff, 15% of the workforce, but lenders were becoming concerned for the viability of the company without new orders coming through.¹³⁰ For continued lender support, guarantees of future payments from Network Rail were required, but meetings between Jarvis, its lenders, and Network Rail officials, failed to secure any such agreement and a formal statement to the stock exchange was issued: “following negotiations with the company’s secured lenders, it has become clear that sufficient support will not be extended to the company to enable it to continue trading as a going concern”.¹³¹ One commentator summarised the position: “Jarvis, one of the most infamous names in the world of British engineering over the last ten years, has finally been forced into administration”.¹³²

Discussion

Despite the RBV now being a mainstream theory in strategy and management research, its application to the study of turnarounds has so far been limited.¹³³ Where utilised, there has been an overwhelming focus on the upside of resources, namely where they may result in a sustained competitive advantage, yet this may overlook the other side of the ledger, the resources that damage profitability for the firm. Calls have been made for detailed longitudinal case studies to build on the conceptual work on resource weaknesses undertaken by West and DeCastro, and Arend.¹³⁴ The business history field appears particularly well placed to help achieve such an aim, and in so doing, promote greater connectivity between mainstream management and business history research.¹³⁵

Furthermore, studies of turnarounds can provide further evidence within the business history literature of more radical and discontinuous change, to complement the considerable wealth of business history studies that deal with incremental evolution.¹³⁶ An examination of resource weaknesses in the case of Jarvis, a firm that made desperate efforts to turnaround, yet eventually succumbed to failure, provides valuable insight into factors that may hinder or prevent turnaround.

With over a century of trading, Jarvis had gradually grown to become a well respected construction firm, undertaking a range of medium to large sized projects for wide client base, under the guidance of the Jarvis family. Like many other construction firms, the company had suffered in numerous cyclical downturns, yet had showed substantial resilience, in part due to a conservatism that ensured relatively low debt levels were maintained. New ownership in the 1980s brought ambitious expansion plans, with debt-financed acquisitions quickly taking the company to a new scale and scope. As turnover increased, profitability fell, and as the company struggled to find sufficient work in the recessionary climate, financial concerns escalated to the extent that a change in leadership, coupled with a further injection of funds, was required to ensure the continuation of the firm. The early stages in the turnaround of Jarvis followed a familiar formula of leadership change, refocusing and repositioning.¹³⁷ Unaddressed, however, was an underlying resource weakness in the evaluation and management of construction risks, which had emerged during the period of rapid expansion. In a highly competitive environment where new business was hard to obtain, Jarvis was finding it had persistent problems in its existing activities, with recurring errors in the assessment and management of contracts damaging profitability. Inadequate due diligence as to the likely risks and potential costs of projects resulted in consistent under-pricing, and work managed by Jarvis was often subject to

subsequent delays in completion.¹³⁸ Whilst the weaknesses were recognised by the management team, new leadership believed the best course of action to be the re-orientation of the company from a traditional construction firm to a manager of construction services, with niches in areas such as education and healthcare.¹³⁹ At the time the sale of a number of rail maintenance and renewal companies, as part of the UK government's rail privatisation programme, presented an opportunity to fast track the strategic re-orientation of the company.

The purchase of one such organization, NIMCo, realised Moayedī's ambitions to become a service-oriented company in a niche market for what many regarded to be a low price given the limited competition and long-term assured contract.¹⁴⁰ Whilst a bold move, path-breaking acquisitions of this nature have been highlighted in the turnaround literature as a potential way of rapidly bringing new capabilities to an organisation where a fundamental shift in strategic focus is desired.¹⁴¹ For a firm that had found itself with capabilities no longer able to provide competitive advantage, such an approach offers a potential escape route, yet one that also contains an element of risk that may be not be fully recognised by the incumbent leadership. Whilst the CEO, Moayedī, believed that in turning Jarvis around the company had moved from "...high risk, low margin" general contracting to "...high tech, lower risk operations..,"¹⁴² in reality, through further debt-finance acquisitions, the company had moved into an area with considerable risk and a degree of unfamiliarity for the management team.

Much as been written concerning the identification, development and exploitation of resource strengths over time, with complexity and causal ambiguity being cited as factors that may benefit a firm by hindering imitation by competitors.¹⁴³ In contrast, West and DeCastro point to complexity and causal ambiguity as being potential dangers with respect

to resource weaknesses, with liabilities remaining hidden before emerging suddenly to damage profitability.¹⁴⁴ In the case of Jarvis, however, management showed an awareness of their deficiencies, yet also believed that the performance problems of the company could be overcome by strategic reorientation to more lucrative business areas.¹⁴⁵ The existing literature on turnarounds highlights the important role of the environment in turnarounds, in particular its role in relation to decline.¹⁴⁶ Research examining external causes of organizational decline has focused on a range of factors (not exhaustively) including: environmental jolts, technological changes, industry decline, and competitive dynamics.¹⁴⁷ For Jarvis and many other construction companies, however, changes in the environment by way of government shifts to PFI work, were cautiously viewed as a new opportunity, and one that was too large to be ignored. On the surface, the turnaround strategy appeared to be effective. Jarvis was one of the first movers to take advantage of the government's PFI scheme in the education sector. Contracts usually encompassed both a build and maintenance agreement, resulting in long-term revenue streams. With a conversion rate from bid submission to signed contract ahead of its peers, Jarvis rapidly became recognised as the market leader. As Jarvis benefitted from the generous margins in its rail business, coupled with upfront payments on its PFI projects, both turnover and profits grew apace, while market capitalisation escalated from £10m to almost £1bn.¹⁴⁸

Within the turnaround strategy, however, the seeds of future problems had already been sown. Failure to address the resource weaknesses present in the assessment and management of construction risk ensured their continuation as Jarvis moved into new activities. Much of the PFI work involved refurbishment of existing buildings. Whilst Jarvis had a good track record in the construction of new premises, they were less skilled in undertaking refurbishment contracts. As highlighted in the DfES report, interviews with

Jarvis's clients commonly resulted in the comment "Jarvis were fine in the new build but for the refurbishment was not of a standard we would expect".¹⁴⁹ By their very nature, refurbishment projects carry a greater degree of risk, with under pricing a higher likelihood due to the emergence of unforeseen problems and costs. In-depth due diligence, including a thorough appraisal of potential risks, may go some way in circumventing such occurrences. In both these areas, however, the approach taken by Jarvis was regarded as lackadaisical, with later corporate governance committees highlighting the absence of appropriate risk evaluation throughout the organisation. To make matters worse, the PFI bidding team, incentivised to get deals done, were disconnected from the construction operations of the company, resulting in a scenario where contracts were frequently won at prices that could not be profitably delivered.

From a resource-based perspective, the rapid expansion of a firm can bring critical challenges. Penrose emphasises the risks that "there are times when the difficulty of making the necessary administrative adaptations may result in a very critical period in a firm's growth during which its continued existence hangs in the balance".¹⁵⁰ In particular, Penrose notes that the risks that may evolve from expansion of a complex nature, not only due to the "greater variety of managerial tasks to perform", but also by way of the integration with the rest of the firm.¹⁵¹ For Jarvis, as expansion increased, the corporate governance and risk management processes of the firm became inadequate for the new demands placed upon it, a factor frequently overlooked in the resource-base of a firm.¹⁵² As management failed to evaluate and control the new risks, the lack of integration between activities only exacerbated problems further.

The process of success and failure is central to Penrose's view of the resource-based view. Penrose discusses the fact that the future can never be known with accuracy, and that

manager's decisions "are based on expectations about the future that which are held with varying degrees of confidence".¹⁵³ As managers are forced to take decisions on the basis of imperfect information in an uncertain environment, some decisions will inevitably turn out *ex post* to have been unfortunate despite having been made with the *ex ante* intention of maximizing profits. Where managers do not deploy the resources in an efficient manner, their actions may reveal information that will enable them to learn and make more informed decisions over time, and if not the firm may fail and the resources be re-circulated in to the economy to be used by others. The process of success and failure, therefore, are central to Penrose's view of the resource-based view, and is one that aligns closely with Austrian economics.¹⁵⁴

In addition to the problem of imperfect information, Penrose highlighted the influence of path-dependence on managerial decision-making. She argued that: "the services that resources will yield depend on the capacities of the men using them, but the development of the capacities of men is partly shaped by the resources men deal with. The two together create the special productive opportunity of a particular firm."¹⁵⁵ Hence, the managers of every firm confront a different set of resources leading them to make different strategic decisions that, in turn, further modify the resource bundle. In addition to the problems of imperfect information, therefore, firm failure may arise through the path dependent nature of managerial choices that lock firms in to corridors of activity and/or may hinder the managers of the firm from learning over time. In the case of Jarvis, the market changed around how government contracted for the long-run maintenance of public sector infrastructure through the PFI initiative. The problem for the management of Jarvis was that they systematically misdiagnosed the risk and under-priced the contracts they won, which then locked them into long-run losses. The nature of the contracts significantly reduced

management's ability to address their decisions, even if they were able to fully learn from their mistakes.

Relatedly, West and DeCastro suggest that weaknesses are not static, and may become more pronounced if either firm strategy or industry changes take place.¹⁵⁶ For Jarvis, the shift to focus on niche PFI contracts unwittingly had the effect of significantly increasing the long-term value destruction emanating from the resource weakness.¹⁵⁷ As Jarvis won more and more long-term PFI contracts, the salience of the resource weaknesses vis-à-vis its competitors became more pronounced. As upfront payments accumulated, in the short-term, management were unaware of the underlying dangers in their construction activities and focus was drawn to the rail side of the company.

Scholars of the RBV suggest that the resource-base of a firm cannot be changed instantaneously, and it has been proposed that like strengths and competencies, weaknesses and inadequacies will take time to develop and manifest themselves.¹⁵⁸ The Jarvis case, however, raises the possibility that for resource weaknesses, there may sometimes be a greater immediacy of change, highlighting a potential asymmetry with the characteristics of resource strengths. Asymmetry allows for the causes leading to an outcome to be different from those leading to the absence of the outcome.¹⁵⁹ For instance, if one were to model the inverse of high performance, the results of a correlational analysis would be unchanged, except for the sign of the coefficients. In contrast, a causal understanding of necessary and sufficient conditions suggests that the set of causal conditions leading to the presence of the outcome may be different from the set of conditions leading to the absence of the outcome. Even though the presence of a particular combination of causes may lead to high performance, it may not be merely the absence of

this combination, but the presence of an entirely different set of causes, that leads to low performance.

The possibility of asymmetries between resource strengths and weaknesses has been raised in the resource weakness literature, yet the dimension of time has not been explored.¹⁶⁰ The Potters Bar rail crash in 2002 occurred on a stretch of track maintained by Jarvis, and by the end of the year, victims had already begun legal action against both Jarvis and Railtrack.¹⁶¹ For Jarvis, the creation of a critical resource weakness, by way of a toxic company brand, was immediate, with deep reputational damage and hostility towards the firm. The Jarvis case suggests that resource weakness stocks may be accumulated very quickly, and as such, may have a more rapid impact on firm performance outcomes than resource strengths. The handling of resource weaknesses following their manifestation may be particularly important given their destructive nature, with the Jarvis case demonstrating how poor management of resource weaknesses may elevate their potency, further reducing the likelihood of turnaround. In addition, the case highlights the risks to firm performance that just a small number of resource weaknesses can bring. Whilst the resource-based literature suggests that value is created from the combinative effects of a range of resource strengths, Jarvis demonstrates the potentially terminal impact of just a very small number of resource weaknesses. Rather than mirroring the properties of resource strengths, resource weaknesses may have different properties that are more immediate and have far greater performance implications than their resource strength counterparts. Consequently, resource weaknesses may be of central importance for our understanding of the historical performance of companies and the decision-making of current management teams.

Whilst the resource weakness of Jarvis's toxic brand was highly destructive on its own, it soon became clear that the weakness had the potential to interact with, and elevate the

destructive nature of other weaknesses within the company. Arend proposes that complementary strategic liabilities may exist where weaknesses combine and reinforce one another. In such cases, the costs to the firm will be greater than if the two liabilities existed separately.¹⁶² Further exploration of this matter was beyond the scope of Arend's research, but the case of Jarvis provides a valuable opportunity to do so. Despite the new focus within the construction business, the resource weaknesses in construction risk assessment and management persisted. Failure to undertake thorough due diligence and take account of the likelihood of unforeseen problems occurring during each project resulted in continuous under-pricing and delays. In normal circumstances, running late on one project would be unlikely to prevent work with other clients, however, given the ferocity of press attention on Jarvis that had emerged due to their involvement with the Potters Bar rail crash, each construction blunder was heavily publicised. Consequently, potential clients across the country were aware of the company's failings, impacting on the accumulation of new contracts and further increasing the reputation damage to the firm. Virtually every mention of Jarvis in the press was followed by a note to remind readers that this was the company connected to the Potters Bar train crash. Despite the known shortcomings of Jarvis's refurbishment work, interviews with clients suggested the overall quality of the firm's construction activities was little different to other companies undertaking PFI work and in some instances, Jarvis was even above average for satisfaction levels.

From a resource-based perspective, it has been suggested that resource weaknesses can be assessed in a similar manner to resource strengths, utilising approaches derived from the work of Barney.¹⁶³ For Jarvis, its weaknesses in construction operations certainly contributed to the destruction in firm value, but were not rare vis-à-vis other competitors. The potency of the weaknesses, however, were elevated to a height much beyond its rivals

when combined with the brand weakness suffered in connection with the Potters Bar rail crash. The case provides a clear example of how resource weaknesses may combine with devastating effect on company outcomes. Gaining new work became increasingly difficult for Jarvis, and in one instance, even a campaign was launched aimed at preventing the firm from winning a PFI contract due to its history.¹⁶⁴ The resource weakness of the Jarvis brand that had emanated in the rail division, combined with the resource weaknesses in construction operations, created a near perfect storm. In building on Arend's work, the case not only demonstrates how resource weaknesses may interact with one another to destructive effect, but also suggests that some resource weaknesses may have a greater propensity to combine with others. A resource weakness in the form of a toxic brand may have a high level of transferability within an organisation, therefore, creating a heightened risk that it may combine with other resource weaknesses inside the firm. For Jarvis, whilst transferable within the company, the brand weakness was economically non-transferable away from the firm, with efforts to rebrand failing to distance the company from the liability.

In answering calls for further examination of the categories and characteristics of resource weaknesses, we suggest that the case of Jarvis provides insight into the nature of resource weaknesses and combinations thereof that can prevent turnaround and ultimately lead to firm failure.¹⁶⁵ Jarvis had a persistent weakness in assessing and managing risk, with a lack of due diligence and a failure to account for the potentiality of unforeseen construction problems resulting in poor pricing, cost and time overruns. Failure to adequately address this weakness ensured its persistence over time and the weakness became more salient due to changes in firm strategy. The weaknesses made current contracts unprofitable for the business, destroying value. We categorise these as "Type 1

Resource Weaknesses”: Resource weaknesses that cause value destruction in existing operations.

In the case of Jarvis we see an underlying Type 1 resource weakness take on a much greater salience as the firm changed its strategy to move into new areas of business characterized by long contracts. In itself, although the Type 1 resource weakness increased in salience due to the strategic re-orientation of Jarvis, its presence may not have been terminal. We note that the actions of the leadership of the firm, in failing to grasp the firm’s weakness in relation to contracting, led the firm to take on greater risk associated with longer contracts. Being locked into longer contracts merely increased the salience of the Type 1 resource weakness, which was to increase through the duration of the contracts.

In addition, the brand weakness resulting from the train crash and aftermath meant that trust in the company was so low that the acquisition of new contracts was extremely difficult. We categorise this as a “Type 2 Resource Weakness”: Resource weaknesses that prevent new value creation opportunities, as presented in table 2. Each of these resource weaknesses in isolation can cause serious problems for the firm, but may not be fatal. Type 1 means current contracts may be unprofitable, but still allows for the firm to invest in reducing the weaknesses so that future contracts may be assessed and managed differently. Type 2 means new contracts are hard to attract, but if existing contracts are still earning returns there is still time to invest in reducing this weakness in the hope it can be overcome in the long-run.

TABLE 2

Resource Weakness Categories

Resource Weakness Category	Resource Weakness Case Example: Jarvis	Impact of Resource Weakness in Jarvis case
Type 1 Resource Weakness: <i>Destroys value in the existing activities of the firm.</i>	Weakness in the assessment and management of risk, persistently inadequate due diligence.	Current contracts unprofitable – poor pricing, frequent unforeseen construction problems, cost and time overruns.
Type 2 Resource Weakness: <i>Prevents future value creation opportunities for the firm.</i>	Emergence of a toxic brand, primarily from the involvement of Jarvis in the Potters Bar rail crash and handling of the aftermath.	Rapid decline in trust. Company under intense scrutiny ‘working under a spotlight’ in all of its business areas – eg., errors made in the construction business amplified through national media, preventing Jarvis from winning new contracts.

We suggest that the combination of Type 1 (destroying existing value) and Type 2 (destroying future value creation opportunities) may be fatal to any organisation. Investing to overcome Type 1 (Jarvis risk assessment and management) is only worthwhile if new value creation opportunities can be quickly gained, which Type 2 (Jarvis toxic brand) makes extremely unlikely. Overcoming Type 2 weaknesses require investment over the long-term, and can only be successful if the firm is still generating value from existing operations for long enough to provide time to reduce the weakness; and Type 1 prevents this option by destroying value in existing operations, therefore, resulting in the firm running out of time to trade itself back into a position of sustainability. In summary, we propose that firms possessing resource weaknesses that are both Type 1 and Type 2 concurrently, may be at greater risk of catastrophic failure. In essence, Jarvis was caught in a resource weakness “catch 22”, whereby the Type 1 and Type 2 resource weaknesses re-enforced one another and led to the demise of the firm.

The case of Jarvis provides a cautionary study in the consideration of both turnaround research methods and turnaround strategies. There have been criticisms of the short time frames used to assess the success of corporate turnaround efforts, with calls to undertake more longitudinal analysis of corporate turnarounds, studying performance over much larger time frames.¹⁶⁶ The case of Jarvis lends further weight and urgency to this call, with the turnaround strategy and ultimate failure of the company being inextricably linked. Further research is needed that seeks to examine the performance of turnarounds for a substantial period after the event, to enable us to develop a greater understanding of the benefits and risks that may emanate from particular turnaround strategies. Second, for turnaround practitioners, the case of Jarvis highlights important issues. Whilst path-breaking acquisitions have been suggested as a potential route out of persistent failure, rapid expansion into new areas of activity brings inherent risks, in particular the concern that management fail to fully comprehend the new organisation, creating a heightened risk that a resource weakness, or combination of weaknesses, may emerge. Where managers fail to remedy these weaknesses, or choose strategies that greatly rely on these deficient resources, performance consequences can be catastrophic.

Conclusion

Through the case of Jarvis we have sought to gain a greater understanding of the factors that may hinder or prevent sustained turnaround, ultimately leading to firm failure. The RBV, and in particular the concept of resource weaknesses, provide us with valuable insights into the importance and nature of resources that detract from firm performance, destroying value. The case of Jarvis demonstrates the dangers that may result from failure to address resource weaknesses and the risk that strategic shifts to more “attractive” niches may not

always enable a firm to escape prior weaknesses. Indeed we suggest that an analysis of resource weaknesses as part of strategic change efforts during turnaround attempts may be crucial to ensure that any actions taken do not make existing resource weaknesses more salient and destructive for the firm. In addition, contrasting with the belief that resource stocks cannot be changed instantaneously, the immediacy and level of the decline in resource stocks experienced by Jarvis, resulting from its involvement with the Potters Bar rail crash, raises the possibility of important asymmetries between resource strengths and resource weaknesses. In addition, whilst value may be created from the combination of numerous resource strengths, the Jarvis case shows how only a small number of resource weaknesses can have a devastating impact on firm performance, with the management of such weaknesses therefore being critical. Finally, the notion that resource weaknesses may combine to create costs to the firm greater than if existing in isolation has been mooted in previous research.¹⁶⁷ The case of Jarvis shows such factors at work, creating a fatal outcome and in so doing enables us to propose categories of resource weaknesses that when concurrently held, may reduce the likelihood of turnaround.

Notes

1. Pearce and Robbins, "Toward Improved Theory"; Pandit, "Recommendations for Improved Research"; Trahms et al. "Organizational Decline and Turnaround."
2. Pandit, "Recommendations for Improved Research"; Morrow et al. "Creating Value"; Trahms et al. "Organizational Decline and Turnaround."
3. Chapman, "Decline and Rise of Textile"; Jones and Zeitlin, *Handbook of Business History*; Killick, "Transformation of Cotton Marketing"; Sogner, "Fall and Rise of the Norwegian IT Industry".
4. Jones & Zeitlin, *Handbook of Business History*.
5. Whittington, "Alfred Chandler."
6. Connell, "Entrepreneurial Enterprise"; Jones and Miskell, "Acquisitions and Firm Growth"; Lee and Xuehua, "The Origins of Business Groups"; Lockett and Wild, "A Penrosean Theory"; Wild, "Underestimating Strategic Change".
7. Lockett and Wild, "A Penrosean Theory."
8. Bibealt, *Corporate Turnaround*; Hofer, "Turnaround Strategies"; Kanter, "Psychology of Turnarounds"; Penrose, *The Theory*, 84.
9. Lockett and Wild, "A Penrosean Theory; Wild, "Underestimating Strategic Change."
10. West and DeCastro, "The Achilles Heel of Firm Strategy."
11. Arend, "Strategic Liabilities"; West and DeCastro, "The Achilles Heel."
12. Trahms et al. "Organizational Decline and Turnaround."
13. West and DeCastro, "The Achilles Heel of Firm Strategy."
14. Arend, "Strategic Liabilities," 1022.
15. Ibid., 1007.
16. Diereckx and Cool, "Asset Stock Accumulation"; West and DeCastro, "The Achilles Heel of Firm Strategy."
17. Arend, "Strategic Liabilities."
18. Sirmon et al. "The Dynamic Interplay."
19. Pandit, "Recommendations for Improved Research"; Trahms et al. "Organizational Decline and Turnaround"; West and DeCastro, "The Achilles Heel of Firm Strategy."
20. Trahms et al. "Organizational Decline and Turnaround."
21. Arend, "Strategic Liabilities"; Trahms et al. "Organizational Decline and Turnaround"; West and DeCastro, "The Achilles Heel of Firm Strategy."
22. West and DeCastro, "The Achilles Heel of Firm Strategy."
23. Arend, "Strategic Liabilities."
24. Wild, "Underestimating Strategic Change."
25. Kipping, Wadhvani and Bucheli, "Analyzing and Interpreting," 316.
26. Howell and Prevenier, *From Reliable Sources*, 66; Kipping et al., "Analyzing and Interpreting," 318.
27. Bucheli and Wadhvani, *Organizations in Time*.
28. Gephart, "The Textual Approach," 1469.
29. Langley, "Strategies for Theorizing."
30. Ibid, 703.
31. Walsh and Bartunek, "Cheating the Fates."
32. Annual Report 1989, 2.
33. Jarvis Filed accounts.
34. Jarvis Filed accounts, 1962.

35. Jarvis Filed accounts, 1976.
36. Jarvis Filed accounts, 1980, 1981.
37. Annual Report, 1989, 2.
38. Construction News Plus, "Turnover New Leaf in Jarvis"
39. Annual Report 1990, 2; Taylor, "Gloomy Jarvis."
40. Annual Report 1990, 5; Taylor, "Jarvis Takes Over."
41. Annual Report 1991; Taylor, "Jarvis Takes Over."
42. Annual Report 1992, 5; Annual Report 1993, 5-7.
43. Annual Report 1993, 10.
44. Annual Report 1994; Whittington, "Jarvis Announces Plan."
45. Annual Report 1994.
46. Annual Report 1995, 4-5.
47. Taylor, "Jarvis Shares Jump."
48. Gordon, "Jarvis is Bolstered."
49. Taylor, "Jarvis Shares Jump," 29.
50. Annual Report 1998.
51. Sharewatch, "Jarvis"; Guthrie, "Jarvis Considers Sell-offs"; Guthrie, "The Dealmaker."
52. Annual Report 1998, 4.
53. Batchelor & Adams, "Railtrack Deal"; Simonian, "Railtrack and Jarvis Settle."
54. Simonian, "Railtrack and Jarvis Settle," 17.
55. Annual Report 1998, 5; Ford, "Jarvis to Take Over."
56. Guthrie, "The Dealmaker," 21.
57. Pretzilk, "Jarvis Tempers."
58. Annual Report 1997, 12.
59. Annual Report 1998, 10-12.
60. Annual Report 2000, 14.
61. PwC, "The Value of PFI", 13.
62. Annual Report 2001, 4.
63. Ibid, 5.
64. Annual Report 2000, 4.
65. Wild, "Underestimating Strategic Change."
66. Batchelor, "Jarvis Sees Slow Progress"; Batchelor, "Jarvis and Kier Win."
67. Blitz, "Rail Crash"; Jowitt, "Potters Bar."
68. Felsted, "Rail Maintenance Shares."
69. Ibid, 2.
70. Wendlandt, "Rail Group Jarvis."
71. Blitz, "Rail Crash"; Odell and Tait, "Railtrack and Contractor Sued."
72. Blitz, "Rail Crash," 4.
73. Wright, "Jarvis in the Dock"; Wright, "Jarvis to Quit Track Work."
74. Wright, "Jarvis to Quit Track Work," 3.
75. Annual Report 2003, 2; Smy, "Jarvis Lands £339m."
76. Felsted, "Jarvis Faces Criticisms."
77. Smy, "Pressure of Being in the Spotlight," 2.
78. Ibid.
79. Ibid.
80. Ibid.

81. Smy, "Moayed Set to Step Down."
82. Felsted, "Jarvis to Scale Down," 2.
83. Felsted, "Teachers in Bid to Stop Jarvis," 22.
84. Ibid.
85. Ibid.
86. Lancaster University, "Council Minutes", 9.
87. Deloitte, "Report to Creditors", 3.
88. Simonsen and Cassady, "From Off-the-rails."
89. Annual Report 2004, 2-5.
90. Simonsen and Cassady, "From Off-the-rails," 115-116.
91. Simonsen and Cassady, "From Off-the-rails."
92. Annual Report 2004, 2.
93. Leftly, "The Fall of Paris"; Simonsen & Cassady, "From Off-the-rails."
94. Kirklees Investigation Report 1, 2.
95. Ibid, 19.
96. Kirklees Investigation Report 1, 19; Kirklees Investigation Report 2, 7.
97. Kirklees Investigation Report 2, 8.
98. Ibid, 14.
99. Felstead, "Jarvis to Change Name"; Annual Report 1993, 7, 10; Felsted, "Schools Out"; Harris et al., "Jarvis Shares Fall."
100. DfES, "Schools PFI", 14, 15.
101. Annual Report 2004, 19.
102. Annual Report 2004, 22; Felsted, "Chief of Troubled Unit."
103. Harris et al., "Jarvis Shares Fall."
104. Pesola, "Jarvis may Face Talks."
105. Cave and Pesola, "Jarvis rivals in PFI."
106. Carrillo et al. "Participation, Barriers and Opportunities."
107. Cave and Pesola, "Jarvis rivals in PFI."
108. Felsted, "Jarvis Denied"; Felsted, "Jarvis Moves."
109. HM Treasury, "A New Approach", 15.
110. Morton, "Construction", 26.
111. New Civil Engineer (1994). NCE/NB PFI Supplement, July 1994.
112. HM Treasury, "PFI Signed Projects"; Leiringer and Schweber, "Managing Multiple Markets".
113. Carrillo et al. "Participation, Barriers and Opportunities."
114. Ibid.
115. Toms et al. "Profitability of UK PFI".
116. DfES, "Schools PFI", 15.
117. Rogers, "Jarvis offloads PFI".
118. Ibid.
119. Annual Report 2004, 15, 76, 77.
120. Tricks & Tucker, "Departure Finally Draws a Line"; Annual Report 2003; Annual Report 2004.
121. Tassell, "Jarvis Shares Fall."
122. Davoudi, "Jarvis Plans an Exit"; Davoudi, "Jarvis Sells Road Unit."
123. Annual Report 2005, 5.

124. Annual Report 2005, 61; Annual Report 2006, 5; Blitz, "Jarvis Sees Continuity."
125. Annual Report 2007, 16.
126. Davoudi, "Jarvis Comes Back"; Griggs and Boxell, "Jarvis Signals."
127. Davoudi, "Jarvis Plans an Exit."
128. Dewson "Jarvis," 26.
129. Parkinson, "Jarvis Strategic Review"; Dewson, "Jarvis"; Shand, "Rail Shake-up."
130. Foster, "Jarvis Derailed"; Jameson et al., "With a £50m Deal"; Osborne, "Jarvis Cuts"; Shand, "Rail Shake-up."
131. Macalister and Kollwe, "2,000 Jobs at Risk", 35.
132. Ibid.
133. Lockett and Wild, "A Penrosean Theory."
134. West and DeCastro, "The Achilles Heel of Firm Strategy"; Arend, "Strategic Liabilities."
135. Brady, "Finding a History"; Clark & Rowlinson, "The Treatment of History"; Godfrey et al., forthcoming "History and Organization Studies"; Kieser, "Why Organization Theory"; Rowlinson, Hassard and Decker, "Strategies for Organizational History"; Zald, "Organization Studies."
136. Jones and Zeitlin, *Handbook of Business History*.
137. Bibeault, *Corporate Turnaround*; Hambrick and Schector, "Turnaround Strategies"; Hofer, "Turnaround Strategies."
138. Annual Report 1993.
139. Annual Report 1994, 1995; Hall, "Paris Moayed."
140. Lumsden, "Cool Heads"; Sharewatch, "Jarvis."
141. Wild, "Underestimating Strategic Change."
142. Annual Report 2000, 4.
143. Barney, "Firm Resources"; Barney, "Resource-based Theories"; Dierickx and Cool, "Asset Stock Accumulation"; Wernerfelt, "A Resource-based View."
144. West and DeCastro, "The Achilles Heel of Firm Strategy."
145. Annual Report 1993, 1994.
146. See: Trahms et al. for a review.
147. Billings et al., "A model of crisis"; Christensen, "The Innovator's Dilemma"; Dowell and Swarminathan, "Entry Timing"; Grinyer and McKiernan, "Generating Major Change"; Van Witteloostuijn, "Bridging Behavioural."
148. Pretzilk, "Jarvis Tempers."
149. DfES, "Schools PFI", 28.
150. Penrose, *The Theory*, 208.
151. Ibid, 207-208.
152. Barney, Wright and Ketchen, "The Resource-Based View."
153. Penrose, *The Theory*, 56.
154. Lockett and Thompson, "The Resource-Based View and Economics."
155. Penrose, *The Theory*, 78–9.
156. West and DeCastro, "The Achilles Heel of Firm Strategy."
157. Felsted, "Schools Out"; Leftly, "The Fall of Paris"; Simonsen & Cassady, "From Off-the-rails."
158. Dierckx and Cool, "Asset Stock Accumulation"; West and DeCastro, "The Achilles Heel of Firm Strategy."

159. Black and Boal, "Strategic Resources"; Miller, "Organizational Configurators"; Ragin, "Redesigning Social Inquiry."
160. West and DeCastro, "The Achilles Heel of Firm Strategy."
161. Odell and Tait, "Railtrack and Contractor Sued."
162. Arend, "Strategic Liabilities."
163. West and DeCastro, "The Achilles Heel of Firm Strategy"; Barney, "Firm Resources."
164. Felsted, "Jarvis to Scale Down."
165. Trahms et al. "Organizational Decline and Turnaround"; West and DeCastro, "The Achilles Heel of Firm Strategy."
166. Wild, "Learning the Wrong Lessons."
167. Arend, "Strategic Liabilities."

References

- Arend, R. J. (2004). The definition of strategic liabilities, and their impact on firm performance. *Journal of Management Studies*, 41(6), 1003-1027.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643-650.
- Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625-641.
- Batchelor, C. (2001a). Jarvis sees slow progress on tube contract talks. *Financial Times*, June 13.
- Batchelor, C. (2001b). Jarvis and Kier win £358m PFI schools project. *Financial Times*, Oct. 16.
- Batchelor, C. and Adams, C. (1998). Railtrack deal lifts shares in Jarvis. *Financial Times*, Jan 21.
- Bibeault, D. B. (1998). *Corporate turnaround: How managers turn losers into winners*. Beard Books.
- Billings, R. S., Milburn, T. W., & Schaalman, M. I. (1980). A model of crisis perception: A theoretical and empirical analysis. *Administrative Science Quarterly*, 25, 300-316.
- Black, J. A., & Boal, K. B. (1994). Strategic resources: Traits, configurations and paths to sustainable competitive advantage. *Strategic Management Journal*, 15(S2), 131-148.
- Blitz, R. (2003). Rail crash blamed on poor maintenance. *Financial Times*, May 30.
- Blitz, R. (2006). Jarvis sees continuity with Network Rail. *Financial Times*, June 29.
- Brady, F. H. (1997). Finding a history of management. *Journal of Management Inquiry*, 6, 160-167.
- Brice, M. (1997). Jarvis moves into track renewals. *Financial Times*, May 30.
- Bucheli, M., & Wadhvani, R. D. (Eds.). (2013). *Organizations in time: History, theory, methods*. UK: Oxford University Press.

- Byerly, R. T., Lamont, B. T., & Keasler, T. (2003). Business portfolio restructuring, prior diversification posture and investor reactions. *Managerial and Decision Economics*, 24(8), 535-548.
- Carrillo, P., Robinson, H., Foale, P., Anumba, C., & Bouchlaghem, D. (2008). Participation, barriers, and opportunities in PFI: the United Kingdom experience. *Journal of Management in Engineering*, 24(3), 138-145.
- Cave, F., and Pesola, M. (2004). Jarvis rivals in PFI 'unaffected'. *Financial Times*, July 9.
- Chapman, S. (1990). The decline and rise of textile merchanting, 1880–1990. *Business History*,
- Christensen, C. M. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Boston, MA: Harvard Business School Press.
- Clark, P., & Rowlinson, M. (2004). The treatment of history in organization studies: Toward an 'historic turn'. *Business History*, 46, 331-352.
- Connell, C. (2006). Entrepreneurial enterprise and 'image' in the nineteenth-century trading firm: shaping the legal environment for business. *Business History*, 48, 193– 219.
- Construction News. (1991). Turnover new leaf in Jarvis books. *CN Plus*, April 26.
- Davoudi, S. (2004a). Jarvis plans an exit from all PFI work. *Financial Times*, Dec. 13.
- Davoudi, S. (2004b). Jarvis sells road unit and holds talks on train outfit. *Financial Times*, Dec. 23.
- Davoudi, S. (2006a). Jarvis adds new finance director to executive shake-up. *Financial Times*, April 12.
- Davoudi, S. (2006b). Jarvis come back from brink to unveil sharp narrowing of losses. *Financial Times*, July 29.
- Deloitte. (2010). Jarvis Construction (UK) Limited. Report to Creditors, July, 7.
- Dewson, A. (2007). Jarvis, *The Independent*, June 13.
- DfES. (2005). Schools PFI – Post Signature Review. Phase 2 Report, May.
- Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35(12), 1504-1511.
- Dowell, G., & Swaminathan, A. 2006. Entry timing, exploration, and firm survival in the early U.S. bicycle industry. *Strategic Management Journal*, 27: 1159-1182.
- Felsted, A. (2002). Rail maintenance shares fall as effect of Potter's Bar begins to hit investors. *Financial Times*, May 15.
- Felsted, A. (2003a). Jarvis faces criticisms over Wirral delays. *Financial Times*, Nov. 12.
- Felsted, A. (2003b). Jarvis to scale down schools work. *Financial Times*, Nov 29.
- Felsted, A. (2004a). Brighton PFI increases pressure on Jarvis. *Financial Times*, Jan 2.
- Felsted, A. (2004b). Teachers in bid to stop Jarvis winning PFI deal. *Financial Times*, Jan 12.
- Felsted, A. (2004c). Schools out in cold as Jarvis leaves a trail of delays and dissatisfaction. *Financial Times*, Jan 27.
- Felsted, A. (2004d). Jarvis to change name for most PFI ventures. *Financial Times*, Feb 19.
- Felsted, A. (2004e). Jarvis faces £5m loss on schools. *Financial Times*, March 4.
- Felsted, A. (2004f). Potters Bar crash liability accepted. *Financial Times*, April 28.

- Felsted, A. (2004g). Surprise as chief of troubled unit at Jarvis quits after five months. *Financial Times*, June 16.
- Felsted, A. (2004h). Jarvis denied big Scottish contract. *Financial Times*, Aug. 14.
- Felsted, A. (2004i). Jarvis moves to initiate sale of accommodation service division. *Financial Times*, Sept. 18.
- Ford, J. (1998). Jarvis to take over Streamline. *Financial Times*, May 2.
- Foster, G. (2009). Jarvis Derailed by track cutback. *Daily Mail*, Jan 23, p.84.
- Gephart, R. P. (1993). The textual approach: Risk and blame in disaster sensemaking. *Academy of Management Journal*, 36(6), 1465-1514.
- Godfrey, P., Hassard, J., O'Connor, E., Rowlinson, M., & Ruef, M. (Forthcoming). History and organization studies: Toward a creative synthesis. *Academy of Management Review*. Retrieved from http://aom.org/STF2014/#History_and_Organization_Studies:_Toward_a_Creative_Synthesis_
- Gordon, T. (1996). Jarvis is bolstered by NIMCo purchase, *Financial Times*, Dec. 10.
- Griggs, T., & Boxell, J. (2006). Jarvis signals tentative recovery despite rail slowdown. *Financial Times*, Dec. 7.
- Grinyer, P. H., & McKiernan, P. (1990). Generating major change in stagnating companies. *Strategic Management Journal*, 11, 131-146.
- Guthrie, J. (1998a). Jarvis considers sell-offs to focus on transports. *Financial Times*, July 13.
- Guthrie, J. (1998b). The dealmaker sets off in search of fresh adventures. *Financial Times*, Aug 4.
- Hall, A. (2001). City profile: Paris Moayed. *Sunday Telegraph*, December 2.
- Hambrick, D. C., & Schecter, S. M. (1983). Turnaround strategies for mature industrial-product business units. *Academy of Management Journal*, 26(2), 231-248.
- Harris, C., Timmins, N., & Cave, F. (2004). Jarvis shares fall a further 31%. *Financial Times*, July 6.
- HM Treasury. (2008). PFI signed projects list, available online at www.hm-treasury.gov.uk/documents/public_private_partnerships/ppp_pfi_stats.cfm.
- HM Treasury. (2012). A new approach to public private partnerships. HM Treasury, December.
- Hofer, C. W. (1980). Turnaround strategies. *Journal of Business Strategy*, 1(1), 19-31.
- Howell, M. C., & Prevenier, W. (2001). *From reliable sources: An introduction to historical methods*. US: Cornell University Press.
- Jameson, A., Power, H., & Steele, F. (2010). With a £50m deal round the corner, Jarvis goes under. *The Times*, March 26, p56-57.
- Jones, G., and P. Miskell. (2007). Acquisitions and firm growth: Creating Unilever's ice cream and tea business. *Business History*, 49, 8-28.
- Jones, G., and Zeitlin, J. (Eds.). (2007). *The Oxford handbook of business history*. Oxford: Oxford University Press.

- Jowitt, J. (2002). Potters Bar track problem had also occurred 10 days before fatal crash. *Financial Times*, May 14.
- Kanter, R. M. (2003). Leadership and the psychology of turnarounds. *Harvard Business Review*, 81(6), 58-69.
- Karim, S., and Mitchell, W. (2000). Path-dependent and path-breaking change: reconfiguring business resources following acquisitions in the US medical sector, 1978–1995. *Strategic Management Journal*, 21(10-11), 1061-1081.
- Kieser, A. (1994). Why organizational theory needs historical analyses and how this should be performed. *Organization Science*, 5, 608-620.
- Killick, J.R. (1981). The transformation of cotton marketing in the late nineteenth century: Alexander Sprunt and Son of Wilmington, N.C., 1884–1956. *Business History Review*, 55(2), 143–169.
- Kipping, M., Wadhvani, D., & Bucheli, M. (2014). Analyzing and interpreting historical sources: A basic methodology. In M. Bucheli & R. D. Wadhvani (Eds.), *Organizations in time: History, theory, methods*: 305 –329. Oxford: Oxford University Press.
- Kirklees Management Committee. (2006a). Ad hoc scrutiny review into the financial monitoring issues arising from the First Grouped Schools PFI contract. Part 1, January.
- Kirklees Management Committee. (2006b). Ad hoc scrutiny review into the financial monitoring issues arising from the First Grouped Schools PFI contract. Part 2, June.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24, 691–710.
- Lee, K., & Jin, X. (2009). The origins of business groups in China: An empirical testing of the three paths and the three theories. *Business History*, 51(1), 77-99.
- Leftly, M. (2005). The Fall of Paris. *Building*, 46.
- Leiringer, R., & Schweber, L. (2010). Managing multiple markets: big firms and PFI. *Building Research & Information*, 38(2), 131-143.
- Lockett, A., & Thompson, S. (2001). The resource-based view and economics. *Journal of Management*, 27(6), 723-754.
- Lockett, A., & Wild, A. (2013). A Penrosean theory of acquisitive growth. *Business History*, 55(5), 790-817.
- Lumsden, Q. (1996). Cool heads build up hot properties. *The Independent*. May 26.
- Macalister, T. & Kollwe, J. (2010). 2,000 jobs at risk after government cuts prove final blow to Jarvis. *The Guardian*, March 26, p. 35.
- Miller, D. (1990). Organizational configurations: Cohesion, change, and prediction. *Human Relations*, 43(8), 771-789.
- Morrow, J. L., Sirmon, D. G., Hitt, M. A., & Holcomb, T. R. (2007). Creating value in the face of declining performance: firm strategies and organizational recovery. *Strategic Management Journal*, 28(3), 271-283.
- Morton, R., & Ross, A. (2008). *Construction UK: introduction to the industry*. UK: Wiley-Blackwell.

- New Civil Engineer (1994). NCE/NB PFI Supplement. *NCE*, July.
- Odell, M. & Tait, N. (2002). Railtrack and contractor sued. *Financial Times*, Oct. 1.
- Osbourne, A. (2009). Jarvis cuts 450 jobs as work falters. *The Daily Telegraph*, April 1, p2.
- Pandit, N. R. (2000). Some recommendations for improved research on corporate turnaround. *Management*, 3(2), 31-56.
- Park, N. K., & Mezas, J. M. 2005. Before and after the technology sector crash: The effect of environmental munificence on stock market response to alliances to e-commerce firms. *Strategic Management Journal*, 26: 987-1007.
- Parkinson, G. (2006). Jarvis strategic review may spark break-up of engineering group. *The Independent*, Sept 29, p.56.
- Pearce II, J. A., & Robbins, K. (1993). Toward improved theory and research on business turnaround. *Journal of Management*, 19(3), 613-636.
- Penrose E.T. (1959). *The theory of growth of the firm*. Blackwell: Oxford.
- Penrose E.T. (1960). The growth of the firm: a case study: The Hercules Powder Company. *Business History Review*, 34, 1–20.
- Penrose, E. (1995). *The theory of the growth of the firm*. New York: Oxford University Press.
- Pesola, M. (2004). Jarvis may face talks on review. *Financial Times*, July 10.
- Pretzlik, C. (1998). Jarvis tempers international ambitions, *Financial Times*, Dec. 8.
- PricewaterhouseCoopers. (2008). The Value of PFI, *Public Sector Research Centre*. London: PwC.
- Ragin, C. C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond*. Chicago: University of Chicago Press.
- Robbins, D. K., & Pearce, J. A. (1992). Turnaround: Retrenchment and recovery. *Strategic Management Journal*, 13(4), 287-309.
- Rogers, D. (2004). Jarvis offloads PFI arm in rationalisation move. *Construction News*, 21 October.
- Rowlinson, M., Hassard, J., & Decker, S. (2013). Strategies for organizational history: A dialogue between historical theory and organization theory. *Academy of Management Review*, 39(3), 250-274.
- Shand, D. (2007). Rails Shake-up. *The Express*. Sept. 12. p. 64.
- Sharewatch. (1998, 1 January). Jarvis. *Financial Times*.
- Simonian, H. (1997). Railtrack and Jarvis settle pricing dispute. *Financial Times*, July 26.
- Simonsen, A., & Cassidy, B. (2007). From 'Off-the-rails to 'back-on-track': The collapse and rescue of Jarvis PLC. *The Journal of Private Equity*, 10(2), 113-121.
- Sirmon, D. G., Hitt, M. A., Arregle, J. L., & Campbell, J. T. (2010). The dynamic interplay of capability strengths and weaknesses: investigating the bases of temporary competitive advantage. *Strategic Management Journal*, 31(13), 1386-1409.
- Smy, L. (2003a). Jarvis lands £339m student contract. *Financial Times*, Oct. 18.
- Smy, L. (2003b). Pressure of being in the spotlight. *Financial Times*, Nov. 22.
- Smy, L. (2003c). Moayed set to step down at Jarvis. *Financial Times*, Nov. 24.

- Sogner, K. (2007). The fall and rise of the Norwegian IT industry in the global age, 1970–2005. *Business History Review*, 81(4), 709–734
- Tassell, (2004a). Jarvis shares fall 60% on loss warning. *Financial Times*, Nov. 9.
- Tassell (2004b). Breathing space for Jarvis on debt ceiling. *Financial Times*, Nov 16.
- Taylor, A. (1990). Jarvis takes over failed civil engineering group. *Financial Times*, Dec. 28.
- Taylor, A. (1991). Gloomy Jarvis halved to £1m. *Financial Times*, May 8.
- Taylor, A. (1996). Jarvis shares jump on news of railway maintenance buy. *Financial Times*, May 23.
- Toms, S., Asenova, D., & Beck, M. (2009). Refinancing and the Profitability of UK PFI Projects. *Policy, Finance & Management for Public-Private Partnerships*, 64-81.
- Trahms, C. A., Ndofor, H. A., & Sirmon, D. G. (2013). Organizational decline and turnaround: A review and agenda for future research. *Journal of Management*, 39(5), 1277-1307.
- Tricks, H., & Tucker, S. (2004). Departure finally draws a line under ill-fated Jarvis makeover. *Financial Times*, Sept. 29.
- University of Lancaster. (2002). Minutes of a meeting of the council. University of Lancaster, 19 July.
- Walsh, I.J. & Bartunek, J.M. 2001. Cheating the fates: Organizational foundings in the wake of demise. *Academy of Management Journal*, 54(5): 1017-1044.
- Wendlandt, A. (2002). Rail group Jarvis gives chief 66% rise. *Financial Times*, July 8.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, 5(2), 171-180.
- West III, P., & DeCastro, J. (2001). The Achilles heel of firm strategy: resource weaknesses and distinctive inadequacies. *Journal of Management Studies*, 38(3), 417-442.
- Whittington, J. (1994). Jarvis announces plan to 'restore fortunes', *Financial Times*, Nov. 2.
- Whittington, R. (2008). Alfred Chandler, founder of strategy: Lost tradition and renewed inspiration. *Business History Review*, 82(2), 267–277.
- Wild, A. M. (2010). Learning the wrong lessons from history: Underestimating strategic change in business turnarounds. *Business History*, 52(4), 617-650.
- Wright, R. (2003a). Jarvis in the dock over train derailment, *Financial Times*, Sept. 18.
- Wright, R. (2003b). Jarvis to quit track work but Network Rail says rivals eager to move in. *Financial Times*, Oct. 11.