



Facility closure management: the case of Vauxhall Motors Luton

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Abstract

Purpose – The purpose of the paper is to present the findings of a study of factory closure management. It details the sequence and the results of the key strategic manufacturing management decisions made from the time of the announcement of the plant closure to the cessation of operations. The paper also includes an analysis of the human resource management (HRM) actions taken during this same time period and their consequences upon all those involved in the closure management process.

Design/methodology/approach – The case study methodology consisted of two initial site visits to monitor closure management effectiveness (adherence to plan and the types and frequency of closure management communications). During these visits, documentary evidence of the impact of the closure decision upon production performance was also collected (manufacturing output and quality performance data). Following plant closure, interviews were held with senior business, production and HRM managers and production personnel. A total of 12 interviews were carried out.

Findings – The case study findings have informed the development of a conceptual model of facility closure management. Information obtained from the interviews suggests that the facility closure management process consists of five key management activities. The unexpected announcement of a factory closure can cause behavioural changes similar to those of bereavement, particularly by those employees who are its survivors. In addition, similar reactions to the closure announcement may be displayed by those who choose to remain employed by the factory owner throughout the phased closure of the plant.

Originality/value – Facility closure management is an insufficiently researched strategic operations management activity. This paper details a recommended procedure for its management. A conceptual model has also been developed to illustrate the links between the key facility closure management tasks and the range of employee changes of behaviour that can be induced by their execution.

Keywords Operations management, Automotive industry, Productive capacity, Downsizing, United Kingdom

Paper type Case study

Introduction

Few management decisions have a greater impact upon the management and employees of a business than one to close a factory. At this time of global economic

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turmoil, the reported incidences of factory closure have significantly increased in number. All plant closures require considered and effective management in order to minimise their negative impact upon both local levels of employment and the brand name of the factory owner, particularly if the facility to be closed is one of the largest employers in the local community. A decision to close a plant may be taken for a number of sound economic reasons; for example, because of the increased intensity of global competition (Buxey, 2005). The strategic imperative to do so is usually a need for an improvement in operating costs competitiveness. This can be accomplished without a reduction of operating capacity if a strategy of facilities consolidation is implemented. For example, if one plant is closed and its operations are transferred and accommodated in a sister plant. Factories are also closed to achieve a step-reduction in capacity. Such a move is a more reactive response to uncompetitive operating costs or reduced demand. For these reasons, factory closure management is a capability that all multi-site organisations should possess in anticipation of the need to use it. Given the significance and the impact of a decision to close a factory, it was surprising to discover that there is a limited literature on factory closure management. Most previous research seems to have been focused on reducing labour capacity and its impact upon the survivors (Sahdev *et al.*, 2001).

This paper presents the findings of a study made of the closure of an automotive manufacturing factory. The automotive industry has a long history of consolidation at both organisational and operational levels. It therefore possesses both considerable knowledge of, and experience in, implementing such capacity management actions. The case study is of the closure, by Vauxhall, of one of its long established manufacturing sites. The Vauxhall factory in Luton was a volume car manufacturing plant within which in excess of 3,000 people were employed at the time of the closure announcement. Approximately, one thousand of these employees were transferred to a sister general motors (GM) van manufacturing factory during the time of the production run-down to closure of the Vauxhall volume car manufacturing plant. The Luton site, at that time, consisted of the Vauxhall volume car manufacturing facility and, alongside it, the IBC factory which is a GM/renault joint venture manufacturing facility. The proximity of the IBC sister plant enabled studies of survivors' syndrome (Cascio, 1993) of both those managers and employees who chose to transfer to the IBC factory and those who elected to remain with the company during the production run-down period leading to plant closure.

The purpose of the study was to examine facility closure management. The study of this management practice was carried out using two complementary perspectives; an operations management (OM) perspective of the process implemented to accomplish this task and a human resource management (HRM) perspective of the behavioural changes observed in many of those who were participants in the achievement of the task. Those who chose to remain with the company during the final run-down of operations have been termed "temporary survivors" for the purpose of this paper. Those who transferred to a sister plant during this time are the survivors of the downsizing operation. Koulikoff-Souviron and Harrison (2007) emphasise that few OM studies are performed by adopting a combination of perspectives of the issue under investigation. It was thought that taking such an approach for this study might yield insights not discussed in the OM literature.

In the first part of the paper, the current literatures on the HRM and OM issues linked with downsizing and facility closure management are reviewed, which is followed by details of both the research question and the study methodology. The next section of the paper consists of an explanation of the conceptual model of facility closure management, developed from the findings of the case study. These findings were also used to develop an integrated conceptual model that links each major stage of the facility closure process with the behavioural changes reported to have been observed by those who either remained in employment until plant closure or who transferred to the IBC plant. This conceptual model is detailed in the third section of the paper. The final section of the paper consists of a discussion of the study findings, the conclusions drawn from the case study and a reflection on the research limitations with suggestions for future research.

Literature review

The closure of the Luton factory caused three different types of HRM activity; the management of the severance of approximately 1,200 production employees, the management of approximately 700 production personnel who continued working for the company during the last 18 months of production operations and the transfer of approximately 1,000 employees to a sister plant nearby. The downsizing survivors therefore consisted of two types; those who were temporary survivors and those who transferred to the IBC plant. The purpose of the study was to examine the process followed for facility closure management and the methods used to manage the production workforce during the final run-down of production operations in the plant. For this reason, two sets of literature have been reviewed; these are previous research of survivors' syndrome and of factory closure management.

Cascio (1993, p. 96) defines downsizing as: "the planned elimination of positions or jobs [...] Downsizing may occur by reducing work (not just employees) as well as by eliminating functions, hierarchical levels, or units". However, organisations can eliminate work and functions without downsizing. For example, a factory that decides to outsource an operation and to redeploy the employees who were displaced on other added value activities could be considered to have restructured its operations and not to have downsized. In this example, downsizing would have occurred in the department where the work was outsourced but the business unit would not be considered to have been downsized. It is a reduction in the total capacity of the unit of analysis that should be considered to constitute a downsizing.

Cameron (1994b, p. 189) considers the efficacy of downsizing to be pervasive at this time. This conclusion is drawn for two reasons; the first is that organisational effectiveness can be enhanced by either growth or downsizing. The second is that downsizing is consistent with "A dramatic shift [that] has occurred in the assumptions underlying organisational performance and effectiveness." The shift referred to is the move from Fordism to post-Fordism. Cameron (1994b) identifies four propositions summarising the contradictions contained within post-Fordism:

- (1) smaller, as well as bigger, also means better;
- (2) downsizing and decline, as well as growth, are also natural and even desirable phases of an organisation's development;

- (3) tight coupling and non-redundancy, as well as slack resources and loose coupling, are also associated with adaptability and flexibility; and
- (4) conflict and inconsistency, as well as congruence and consistency, are also indicative of organisational effectiveness.

Although Cameron suggests that this shift in the assumptions underlying organisational performance and effectiveness has occurred, it seems that insufficient research has been carried out on the management of some of the methods of downsizing. Cameron (1994a, p. 183) assesses the extent of published research on this management issue as follows:

Downsizing is probably the most pervasive yet understudied phenomenon in the business world [...] The literature reporting systematic, empirical investigations of the multiple causes, consequences and dynamics of downsizing is paltry.

To analyse the causes, consequences and dynamics of downsizing, for a capacity reduction of the scale of a plant closure required the research to be holistic in scope. Oliver *et al.* (2007) emphasise that to analyse rigorously the execution of a strategic change of such a magnitude requires an examination of both the contribution of individual functions to facility closure accomplishment and the means of their coordination. Many researchers of downsizing have chosen a HRM focus to analyse the consequences of job losses on employees (Laabs, 1999; Kivimäki *et al.*, 2000). A broader perspective of the downsizing management process has been applied for this study (Taylor and Taylor, 2008).

Previous studies of the consequences of downsizing (Cascio, 1993; Murphy and Murphy, 1996) have found that operational performance deteriorated following a downsizing implementation.

Of interest, therefore, was whether a deterioration of manufacturing performance also occurred during the last 18 months of operations at Luton. Cascio (1993) expresses five concerns about the potential consequences of downsizing which may explain manufacturing performance deterioration:

- (1) “there is a lack of policies or programmes, for example, employee retraining or job redeployment;
- (2) once specialists are gone, operating managers may be expected to fill the void, needing to develop new skills;
- (3) survivors are stretched thin, they manage more people and jobs and work longer hours;
- (4) short-term decision-making is prioritised over long-term decision-making; and
- (5) following a downsizing, surviving employees become narrow-minded, self absorbed and risk averse and, as a consequence, morale sinks, productivity drops and survivors distrust management (Henkoff, 1990)” – this is termed the survivors’ syndrome (Rice and Dreilinger, 1991; Sahdev, 2004).

Fisher and White (2000) also found that performance deteriorated because there was a lack of information for top managers to make decisions or a loss of institutional expertise and memory.

An activity of downsizing management that could contribute to its successful execution is the type and frequency of information transfer between plant management and their employees. Rigdon (1992), for example, found that only 44 per cent of companies that downsized between 1987 and 1992 shared details of their plans with employees and only 34 per cent told survivors how they would fit into the company's new strategy. This finding was also influential in the design of the case study. One of the issues planned to be discussed with the survivors of the plant closure was the extent of the communication to employees about the future of the IBC plant and their future employment within it.

A guide to good downsizing management practice has been developed by Mishra *et al.* (1998). They recommend a four-stage strategy for "Preserving employee morale during downsizing." It is recognised that this conceptual model has been designed to minimise the effects of survivors' syndrome and not specifically for managing a plant closure. It is however relevant to the management of the "temporary survivors" of this plant closure because of the need to engender their committed support throughout the phased run-down of production operations at the Luton site. The four-stage strategy is also pertinent to the management of the motivation of the survivors who transferred to the IBC plant as they were susceptible to survivors' syndrome both before and following their move to another production site.

The first two stages of their model consist of senior management planning activities, these being to make the decision to downsize and to develop a credible vision for the downsizing process. Following these initial strategic management activities, a team must be formed to initiate the planning of preparations to downsize, for example the communications brief on the need for plant closure. Mishra *et al.* (1998) then recommend the careful planning of the factory closure announcement. Finally, Stage 4 of the strategy developed to "Preserve employee morale during downsizing" is the management of the downsizing implementation process. Eight recommendations are made for this activity. These are as follows:

- (1) tell the truth and over-communicate;
- (2) help departing employees find other jobs;
- (3) announce subsequent separations as planned;
- (4) be fair in implementing separation and generous to laid-off workers;
- (5) allow for voluntary separations;
- (6) involve employees in downsizing implementation;
- (7) provide career counselling; and
- (8) train survivors.

Mishra *et al.* (1998) have therefore proposed a comprehensive range of actions for the HRM of downsizing decisions. These recommendations have been based on the findings of a number of studies of downsizing, one of which was the closure of a GM factory in the USA. This was the Pontiac-Central plant and its closure was led by Craig Parr, the Plant Manager. The authors of the paper report that during the time that Parr was responsible for managing the closure of this plant, and others during the 1980s and 1990s, "he learned some important lessons about motivating people during a downsizing". They reported that Parr found that:

- “People will achieve seemingly impossible goals even during the worst organizational upheaval”: “Once the star employees had departed, the remaining salaried and hourly paid workers achieved record levels of quality and productivity and, in the process, became stars themselves.”
- Parr recognised that effective closure management required investment in people. “He obtained funds for training by working with local union leaders and the international UAW.”
- Another lesson learnt by Parr was the critical issue of trust. “Parr rebuilt trust by communicating frequently and visibly”, including being “much more open to employees than top management wanted me to be.”

Richbell and Watts (2000) have carried out a study of how multi-site manufacturing organizations select the factories that are to be closed. Their paper includes details of four case studies of plant closures when the one chosen for closure is located in a country that differs from where the company head office is located. They draw five implications for the management of factory closure. The first concerns the care that needs to be taken if national government or European Union subsidies have been invested in either the closed or the surviving plant, to avoid the charge that the firm has misused public funds. They warn that such investments are often scrutinized to ensure an appropriate return for the economy that was the source of the subsidy. Two other implications for factory closure management are drawn which relate to organizational politics; the first is the potential use of bargaining power, by the head office, when a plant closure is being considered. Such a proposal can be exploited to negotiate change within the remaining survivor factories. The second is concerned with the choice of location of the plant to be closed and the risk that head office will be considered as biased in their choice of nation. The final two implications drawn from their study are linked to the political impact of plant closure. One addresses the issue of the timing of the plant closure announcement and its potential use for political ends. The second is that management must prepare a considered response to enquiries about the criteria used to select the plant to be closed. Traditionally, public announcements tend only to stress the strategy underlying the closure (excess capacity) rather than explain the plant closure selection criteria. These conclusions informed the nature of the enquiries planned for this case research with particular reference to the plant closure selection criteria.

A more recent study of the closure of an automotive plant (Verity and Jolley, 2008), researched the consequences of its closure upon the social networks or “communities” established by those who worked in it. The researchers found that those made redundant were either liberated by this, because it created an opportunity to build a new career, or it caused a sense of grief because of the loss of their jobs and valued social connections. The long established social networks of those employees who transferred to the IBC site will have been fractured by this move. An issue of interest for this study was, therefore, did the management of the factory to be closed consider or neglect the integration needs of the survivors transferred to the IBC plant and the re-establishment of their substitute social networks.

The literature review has shown that downsizing management, when viewed from a HRM perspective, has been extensively researched. It has also made clear that downsizing consequences, such as survivors’ syndrome, have received extensive

research interest. There is a limited literature on downsizing by factory closure, in particular the types and sequence of OM activities carried out during the phased closure of a plant. In addition, very little OM research seems to have been carried out on the consequences of factory closure decisions and policies upon the manufacturing performance of the plant during a phased plant closure process. The study made of the closure of the Vauxhall factory in Luton provided an opportunity for such analysis.

Research purpose and question

The purpose of the research was to carry out an examination of facility closure management. A more holistic approach to the study was attempted by adopting two perspectives for the research; an OM perspective of the nature and sequence of the plant closure process followed and a HRM perspective of the impact of the process management decisions taken upon all those involved in the plant closure process. The research questions posed to accomplish the research purpose were as follows:

- RQ1.* What are the critical OM activities of a process for facility closure and what are the potential employee behavioural consequences of the execution of these activities?

Research methodology

The use of the case study method

The purpose of the research was exploratory for which a focused case study is recommended (Voss *et al.*, 2002). This methodology is considered appropriate in developing well-grounded theory and is particularly helpful in explaining how and why questions (Yin, 1994; Meredith and Samson, 2001). For theory building, Miles and Huberman (1994) suggest that a conceptual framework should underpin the research. The conceptual framework designed for this case research consisted of four enquiries into the key interdependent activities of a factory closure management process:

- (1) What was the strategic imperative for the plant closure (the external context) and how was its announcement organised?
- (2) How was the phased facility closure planned (the internal context)?
- (3) What were the key stages of the plant closure process, how were these managed and how were progress and production performance measured?
- (4) How successfully was the plant closure managed in terms of achievement to plan for car production run-down, staff redeployment and the severance of redundant employees?

Questions were posed, during semi-structured interviews with corporate and plant managers, a trade union representative and production employees, on their recollections of how the plant closure was managed and their reactions to each stage of its execution. A total of 12 interviews were carried out. The selection of these questions was made having taken cognisance of the relevant findings of previous research detailed in the literature review. For example, whether the manufacturing performance of the plant, during the final run-down of production operations, improved or declined. In order to test both the validity and the reliability of the information gathered, multiple sources of evidence were tapped which included the

collection of plant performance data and direct observations made during a factory visit to the plant during the run-down of operations prior to closure.

Case selection

It is difficult to obtain access to a facility during and after its closure because of the sensitivity of information related to it. To perform a case study in a rigorous manner requires both access to confidential company documents and to a range of employees at all levels within the organisation. The invitation by the senior management of the Vauxhall plant, to carry out an in-depth case study of its closure management, guaranteed access to both of these sources of research data. An in-depth case study of this plant closure was considered to be of research interest because it was considered to be an example of the many factory closures sanctioned by multinational enterprises in the UK. This was because many of these previous plant closures were of similar size and complexity of operations, the plants closed were significant employers in the local community and their owners were manufacturers with high-profile brand names. This case study does however constitute, in the main, a retrospective evaluation of facility closure management. This is because most of the case study data were gathered through interviews held two years after the plant closure. There are obvious drawbacks with questioning individuals about events that took place some considerable time previously but there are potential advantages too. The passing of time permits reflection on actions taken and their subsequent consequences.

Research protocol and data collection

The main sources of qualitative data were the 12 semi-structured interviews held with the management and employees of the Vauxhall Luton plant. These included Mr Nick Reilly, the Chairman and Managing Director of Vauxhall and GM Corporate Vice-President, the Site Production Director, Senior Managers of Sales, Business Affairs and Production, a Trade Union Representative and employees who originally worked on the assembly line in the closed factory and subsequently transferred to the IBC plant. The research protocol also included the collection of plant performance data, direct observations made during a visit to the plant during the phased run-down of operations and a review of relevant archived company documentation. The archived company data that were analysed consisted of the historic records of sales of two of the products manufactured by GM Europe, these being the Vectra and the Zafira. The sales of the latter of these two products were examined because it was claimed that one of the reasons for the decline in the sales of the Vectra was the growth in sales of the Zafira, which was considered to be potentially a substitute product for those Vectra variants at the top end of this product's price range.

During each semi-structured interview, the interviewee was asked the same set of questions by following an interview *pro forma*. All interviews were recorded, transcribed and analysed for both case research purposes and for the drafting of a report, for the senior management of the Vauxhall plant, on the findings of the study. The pro-forma design incorporated the key findings of the literature review on the reasons for downsizing, its method of management, the reported manufacturing performance achievements during the run-down of production operations and the behavioural changes observed in those employees who were the survivors of the downsizing operation. Drawing on the Mishra *et al.* (1998) paper on downsizing

management meant that it would be possible to compare the employee behaviour observations, reported in their paper and attributed to Parr, when he was responsible for closing another GM plant, with those observed by the managers responsible for the closure of the Luton plant. The analyses of the transcribed interviews consisted of the recognition of the key facility closure management tasks and the nature of the reactions of those interviewed to the execution of these tasks. Those tasks considered, by the interviewees, to be the most critical were then incorporated in the following model of facility closure management. To test the validity and reliability of the information gathered, data were collected from a number of different sources, as stated previously. In addition, the findings of this case study have been reported, evaluated and accepted by the senior management of the Vauxhall Luton plant.

Case study findings

An analysis of the information obtained through interviews with both management and production personnel resulted in the development of a process model that incorporates five distinguishable facility closure management activities. These five activities can be considered to constitute the five stages of a plant closure management process, as shown in Figure 1. The model includes some of the recommendations made by Mishra *et al.* (1998) for their four-stage strategy for preserving employee morale

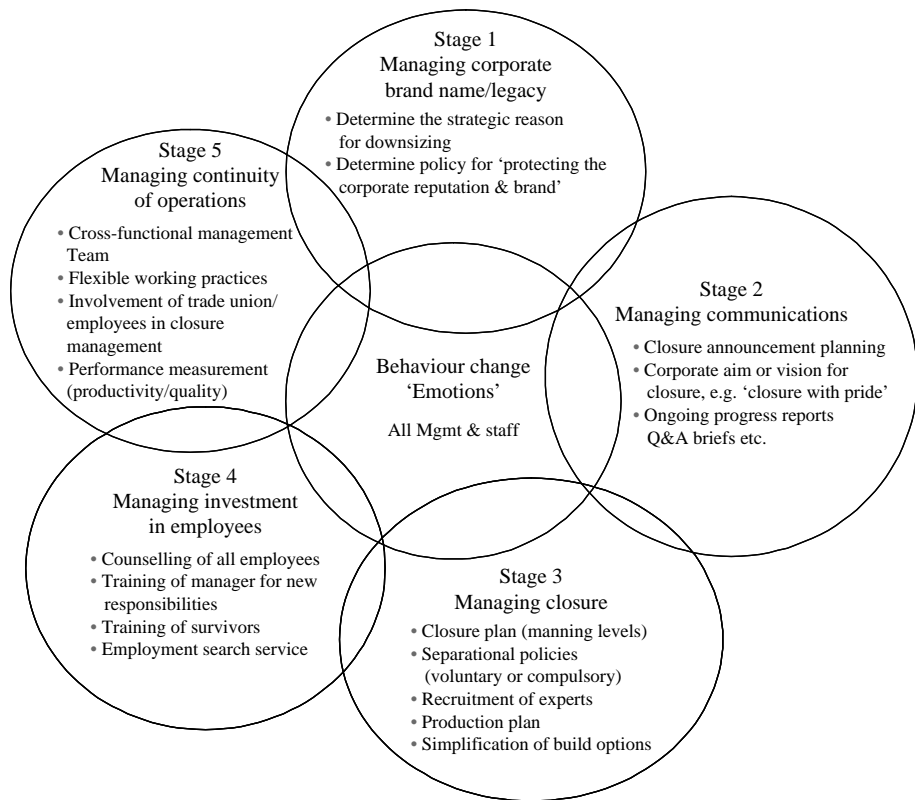


Figure 1.
Model of facility closure management

when downsizing but it also includes a number of additions to these HRM recommendations. The important additions to those made in this four-stage HRM strategy derive from the more holistic perspective adopted for this study, for example the protection of the brand name of the owner of the plant to be closed. The scale of this downsizing activity and the primary position of the factory as an employer in the local community in this case study constituted a major threat to the diminution of the goodwill felt towards the company which its management had invested considerable time and effort to establish in the past. Therefore, a major responsibility of those managing the factory closure was to limit, as much as possible, the damaging consequences of the loss of a significant number of jobs in the local community. This concern was expressed by one of the senior plant managers as follows:

The overriding philosophy (for managing the downsizing) was, if you like, three circles that were interlinked. One task was to do the best for the individual and I would say that this was probably the number one priority. So it's to do the best we can for each individual and to make sure that, when a person either transfers or leaves, he or she has had every opportunity to be retrained to get a job. The second one would have been that we have to do what's best for GM, we still work for GM. Whatever you might think, GM was giving everyone a good living. I think people still say that now, people who have left are part of GM because they had a good standard of living. So there was a responsibility to GM. The third one was a responsibility to the community. We felt that we owed Luton something and that we couldn't turn 1300 people out without having retrained and re-skilled them (The Production Manager of the Luton plant).

For these reasons, Stage 1 of the factory closure management process, as shown in Figure 1, includes establishing a “policy for protecting the corporate reputation and Brand”. The model shown in Figure 1 includes many of the elements of the Mishra *et al.* four-stage strategy because survivors' syndrome was a threat to the level of motivation of the survivors of this plant closure, both the “temporary survivors” and those transferred to the IBC plant. The differences between this model and that of the Mishra *et al.* HRM strategy are that this model includes OM activities as integral elements of the process; production plan preparation and performance measurement; the simplification of the product range manufactured; the adoption of flexible working practices. Figure 1 graphically shows the plant closure process as one that is sequential although some of the activities are partially performed concurrently. In addition, it shows that the execution of all these activities will impact on both the commitment and behaviour of all those involved, either directly or indirectly.

Central to the model shown in Figure 1 is the management of behaviour change and the recognition of the significant emotional impact that an announcement of the closure of an entire plant can inculcate. This became apparent in the research because of the frequent reference to the “grief” reported to have been exhibited by many individuals following the announcement of the plant closure. An example of such an observation is as follows:

[...] people are going to get angry and they need to be able to move through that emotion cycle, just like you go through a grieving process. It takes time to go through that (Site Director).

As a consequence, these reflections were considered to connect with the “Bereavement process” (Kubler-Ross, 1970) of coping with personal grief as this process defines the

range of emotional changes that many of the employees were reported to have experienced following the announcement that the factory was to be closed.

The following is a summary description of each stage of the model.

Stage 1 – Managing corporate brand name/legacy

Within Stage 1 there are two key issues. The first is making the strategic capacity management decision to downsize. Those affected by this decision must be convinced of its legitimacy and need. In this case study, the need for manufacturing capacity reduction was explained but no explanation was given as to why the Luton plant was selected for closure. Another plant in Germany was also manufacturing the product assembled in Luton at that time. However, the Luton employees stated that they were not formally informed why the production capacity of the German plant was not to be reduced to enable the Luton plant to survive. The second is the formulation of a policy to protect the corporate reputation and brand. Such a policy is essential for the downsizing survivors to enable them to choose to continue their employment with the company following the plant closure announcement. Their agreement to transfer to a sister facility or to continue to work at the site until the plant is finally closed will be required. For the company, it is vital that both the survivors and the “temporary survivors” of the plant closure retain their commitment to work productively and to produce high-quality products. Some initial reduction of employee performance is to be expected until the shock of the plant closure announcement has been overcome. How long this lasts will depend upon how long it takes their senior management to restore their loyalty to the company that employs them and its legacy within the local community.

How much manufacturing performance deteriorated and the length of time it took senior management to restore loyalty to the company are described by one of the interviewees as follows (following the plant closure announcement in December):

We never made our schedule in January, February or March. We had quite heavy losses and there were a number of reasons for them. The whole plant was going through a grief cycle, so I don't think people were motivated. You also had the turmoil (created) because you were starting to transfer people to IBC. Not until we went to a single shift (at the end of March) did productivity rise again. For three months after the closure (announcement), I would say that productivity was 85 per cent of what it was and I would say that there was a deterioration in quality and absence because people were trying to get their heads straight (Production Manager of the Plant).

This assessment of the deterioration of manufacturing performance is an indication of the initial financial consequences of a factory closure announcement.

During Stage 1 of the facility closure management process, an executive committee was formed to manage the two tasks discussed previously, these being the preparation of both the closure announcement statement and a policy for corporate brand protection. In addition, it defined the policies for employee severance and transfer. This “Kitchen Cabinet” consisted of the managing director, the site director, the communications and personnel managers and an advisor from the corporate legal department. This executive committee was therefore responsible for the management of those activities listed as Stage 1 of the facility closure management process.

Stage 2 – managing communications

This executive committee was also responsible for the management of the three key issues that constitute a communications strategy. The first is closure announcement planning. The closure announcement planning process must be defined in terms of how all the key stakeholders will be informed about closure and timings for the release of the information. For example, closure usually involves redundancies and a decision will need to be made on whether a national government department should be informed of the intention to close a facility. This is particularly critical if the facility to be closed is the largest employer in the local community. Unfortunately, for the senior management of Vauxhall, the decision to close Luton was leaked before it was planned to be officially announced. This unexpected release of confidential information increased the intensity of the emotions of all those affected by this decision.

The second is the corporate aim or vision for closure, in this case study this was defined as “Closure with pride.” This example illustrates the end state for a successful facility closure. It defines the performance measure that can be used to judge the degree of the success of the closure management team. This can be an operational measure of success and/or a qualitative measure of success. Within the Luton plant, this was defined by one of the interviewees as follows:

Nobody wants to walk out of there and feel like a loser. So how do you measure that? I’ve heard people say a number of times that we’re going to show them they closed the wrong plant. OK, so what do they mean by that? That means we’re going to show them we’re really good and they shouldn’t have closed us. Look at the results we can get. That is the sense of pride and sense of honour (Site Director).

The third is ongoing progress reports, including question and answer briefs. It was found that it was prudent to provide more communications than often considered to be needed to ensure that everybody understood how the closure management process was being carried out. This finding is consistent with previous research findings (Mishra *et al.*, 1998).

Stage 3 – managing closure

Within Stage 3 there are five key issues. The first is developing a production output plan which defines future employment levels during the run-down of operations. It is clear that once the announcement of the facility closure is made, the company is dependent upon the attendance and the productivity of some of its existing workforce in order to implement a cost-effective closure of its facility. Thus, the negotiating power of the employees is increased. This planning process was carried out in parallel with those required for the planning of the closure announcement in order to have a response to the expected questions concerning the length of time the plant would remain open.

The second is separation policies which may either be voluntary or compulsory. The significance of this choice will need to be assessed in terms of its impact upon the ability to retain those employees preferred for the run-down of production. The severance package for Vauxhall Luton employees was designed to reward those with long service records. The younger age groups were encouraged to transfer to IBC by the offer of a transfer payment. An overall assessment of the financial packages offered for severance, to encourage transfers to IBC and to work on the final assembly line

during the final run-down of operations, was given by one of the interviewees as follows:

I think the Corporate perspective of the closure process was that they look upon it as an extravagance [. . .]. It was an extravagant time, the goodwill, the productivity and the quality were paid for. The Corporate line now is that there will never be the packages to match those that were given to the Luton plant (Staff Trade Union Representative).

The third is recruitment of experts. These are professionals who have knowledge and experience of factory closure management. Although it was recognised, by the Luton senior management team, that GM had people in the organisation with this knowledge and experience, the corporate division of the company did not second anybody to Luton to act as an advisor to them. The only expert advice that was given was stated to be by:

[...] a guy [...] in the railroad industry. He had closed down a lot of sites in the railroad industry in the UK and he came into talk to us [...] I was amazed, with all the facilities that GM has closed in its history, there would be somewhere where you could go and get information (on a best-practice procedure) but there is not (Site Director).

The fourth is the development of a production capacities plan for the running down of operations during the period from closure announcement to final closure. The fifth and last is the simplification of operations (product or service variety). The aim of this activity is usually to reduce the complexity and costs of the operations to be performed which will ultimately lead to shut-down. The simplification of manufacturing operations was considered necessary because of the immediate loss of the skills and knowledge of those production workers who chose to accept the severance package offered. Their loss could reduce the productivity and quality performances of the final assembly line if it attempted to retain the same level of assembly complexity without their involvement.

Stage 4 – managing investment in employees

Within Stage 4 there are four key issues. The first is counselling of all employees. Their willingness and ability to undertake the new roles will be dependent on effective behavioural change. Also counselling will be required for those who choose separation from the company as their response to the employment options offered by the company. Counselling services were made available to all those who chose severance from the company and the “temporary survivors”. However, these services were not offered to the survivors who chose to transfer to the IBC plant. The consequences of this omission were stated by one of these survivors to be as follows:

The decision closure ‘was a shock for me and it was a shock for a lot of other people you know. I’ve still got a lot of close friends in IBC who came with me from Vauxhall. We still talk about it now [...] because I loved working for Vauxhall Motors. You don’t realise what you had until you’ve lost it [...] At the time they did the closure, there wasn’t anybody really to come round and ask how you are dealing with it or anything like that. There wasn’t anything because I don’t think they thought it was a big deal [...] I was told it would be the same in IBC but it’s nowhere near the same (Quality Assurance – QA Employee).

The reason given for this lack of investment in the integration of the employees who transferred to IBC was stated to be as follows:

If I look in my organisation, I've still got concerns, to a certain extent, that we've still got a split workforce [...]. I know that daily on the floor there's a contest between ex-Luton and ex-Vauxhall [...]. We were going through a (new product) launch at the time so I have to say we didn't take a huge amount of care to integrate people into the plant. It was like get in there, get on your shift, we're starting three shifts in a week's time. You'd better get trained, it was really all task based. If I had my time again, I would not have pulled the people across as quickly (Plant Director, IBC Vehicles).

The second is training of managers for new responsibilities. The separation policies pursued in Stage 3 may require some of the survivor team leaders to be promoted into new managerial positions. What took place at the Vauxhall plant, to lead the final run-down of production operations carried out within it, was described as follows:

We promoted a lot of very young talent and, if we hadn't had to close, those people would never have been promoted. So they were promoted because senior guys left (Production Manager).

Those promoted to more senior management positions were never formally developed to take up their new roles during the run-down of production operations but were coached by their more senior colleagues. The outcome of these leadership changes, in terms of their impact on manufacturing performance is detailed in the next section of the closure management model.

The third is the training of the remaining survivors. These are the employees who either continue during the scaling-down of operations or are transferred to another company site. The latter of these two types of survivor needs counselling to deal with facility closure as well as the training needed for their integration into a new culture and environment. It is clear from the quoted statement by the employee from the QA Department that the only training given was on-the-job training for the performance of the new role to which he was assigned.

The fourth and last key activity of this stage of the facility closure management model is the provision of employment search services for those electing to leave their employer.

Stage 5 – managing continuity of operations

Within Stage 5 there are four key facility closure management tasks. The first is the creation of a multi-functional leadership team to coordinate the final run-down of production operations. This activity is complex to manage and therefore coordination is critical to its cost effective execution (Oliver *et al.*, 2007). The composition of this team and the roles of the individuals within it were described as follows:

We had a strategy in place and the strategy that we had consisted of four elements. There were people and we had the human resource manager leading this activity. We had the product, which was we had to run-out the current product. We also had the new Vectra, whilst it wasn't going to start in the Luton plant, we had to transfer all the information and lessons over to the Ellesmere Port facility. We had performance and then we had restructuring, which was really managing the closure process itself (Site Director).

The second is the agreement for flexible working practices. This is essential because the gradual run-down of operations may require the substitution of single specialist skills by the capability of survivors to undertake a range of tasks. The third is involvement of trade unions and employees in closure management. To achieve the

flexible movement of labour and adoption of flexible working practices will require the advice and the support of nominated employee representatives. The fourth and last is the continued use of performance measurement (productivity and quality) which can be recorded to not only monitor plant performance but may also provide an indicator of the emotional state of employees and the degree of progress towards the acceptance of the facility closure decision.

Behavioural change – linking our model to the transition curve

If the bereavement process (Kubler-Ross, 1970) is used as a guide to the emotional reactions of the employees of the Luton plant following its announced closure, then investment in people is a means for helping them to come to terms with such an unexpected corporate management decision. Figure 2 shows the Carnall (1990), adaptation of the original Kubler-Ross (1970) five-stage coping model of bereavement, which is also termed the transition curve. It illustrates the range of behavioural changes that were claimed to have been witnessed from the time of the announcement of the plant’s closure to the latter stages of the run-down of operations in the Vauxhall plant. The aim of the model shown in Figure 2 is an attempt to link the cause and effect relationships of facility closure management activities and the behavioural changes observed during the execution of each stage of this process.

At the top of Figure 2 are the five stages of the model for facility closure management. The five types of emotions felt, during a traumatic experience such as bereavement, are listed at the centre of Figure 2 in the sequence that they are shown

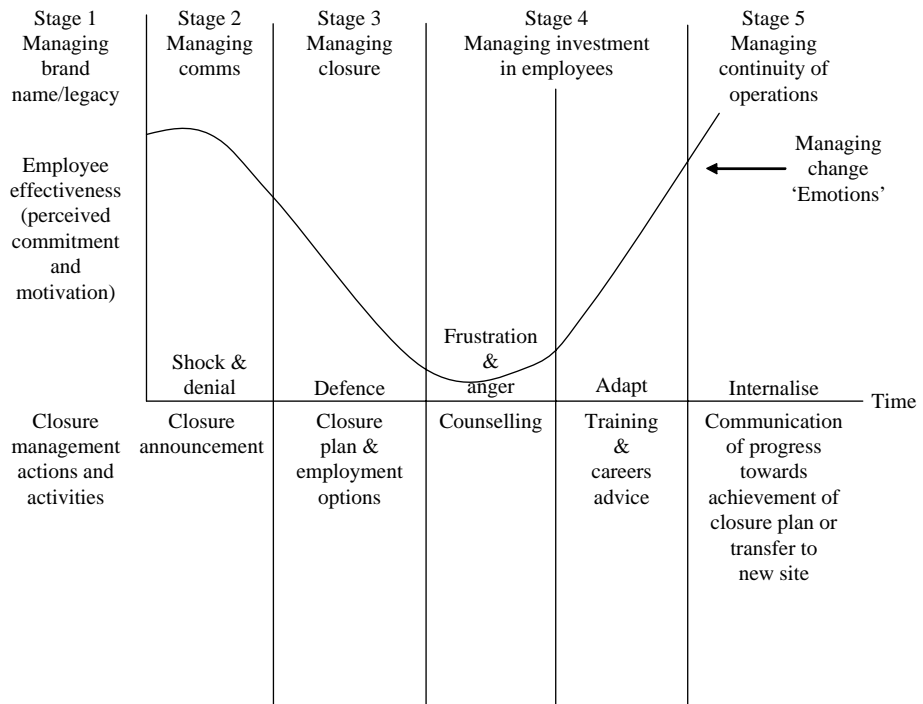


Figure 2.
Linking the model for facility closure management to the transition curve

(Kubler-Ross, 1970). At the bottom of the figure are the actions taken following the closure announcement to address the negative consequences of these emotions.

The case of Vauxhall Luton

Background

On 12 December 2000, the closure of Vauxhall Motors Luton was announced with the loss of approximately 2,000 jobs. The car plant was at the time building the first generation Vectra model, whilst undertaking preparations to build a New Vectra. Two months later, it was announced that the lead plant for the New Vectra would be Russelsheim in Germany, whilst additional volume would be produced at Ellesmere port in the UK. No details were publically announced about the plant closure selection criteria, which is consistent with previous research findings (Richbell and Watts, 2000).

Vehicle manufacturing would not stop at Luton. About 1,295 jobs were available at GM's joint venture factory, IBC vehicles, which is an adjacent factory on the Luton car production site, making the Vivaro van in a joint venture with Renault, along with the Frontera four-wheel-drive recreational vehicle.

The application of the five-stage model for the closure management of the Vauxhall factory

Stage 1 – managing brand name/legacy

The strategic imperative for the factory closure was clear – GM Europe had established excess capacity for the manufacture of a vehicle type targeted at a declining market. The decline in demand for the product was for two reasons; the age of the model at that time and the substitution of demand for this model to a recently launched Vauxhall people carrier, the Zafira. The data obtained from company records indicated that there was a need to reduce production for the Vectra in the J-class segment (this is the family saloon car range). Tables I and II show the changes in market demand for this product in Europe and the UK.

J-class	1995	1996	1997	1998	1999	2000 to October
Segment per cent total mkt	19.6	19.3	19.4	19.1	17.2	15.7
Vectra per cent	1.7	2.5	2.5	2.2	1.6	1.3
Total vol. sect. "000s"	2,636	2,789	2,930	3,133	2,985	2,138

Source: Company documentation

Table I.
Market demand in Europe

J-class	1994	1995	1996	1997	1998	1999	2000 to October
Segment per cent total mkt	27.5	25.8	24.9	25.0	24.1	23.0	21.6
Vectra per cent	19.0	16.4	17.6	17.3	17.1	15.3	14.8
Total vol. sect. "000s"	–	492	503	542	539	491	402

Source: Company documentation

Table II.
Market demand in the UK

Between 1994 and 2000, there was a decline of over 5 per cent in the size of the segment both in Europe and the UK.

The excess capacity reason given for the closure of the Luton plant was repeatedly communicated to all within the plant. However, individuals formed their own opinion on the selection criteria used for the Luton plant closure. Since no information was publicly released on the selection criteria, employees formed the view that Luton was unfairly selected and thus the challenge to reconcile the closure decision with them was substantially increased by this lack of communication.

Stage 2 – managing communications

This consists of two types of communication, that is external and internal communication requirements. The need for internal official communication was expressed as follows:

You have to communicate with people at work and at home, you have to make an official communication because a lot of people are creative, and there's a lot of other communication that flows around, people need to be able to sort out what is the real communication (Site Director).

Externally, closure announcement plans were prepared but the formal announcement about the corporate decision to close the Luton plant was leaked. As a consequence, the prepared plans for internal communications about this decision had to be revised.

Internal communications consisted of the reason for closure, details of progress against the plan for the employee transfers to the IBC plant and car assembly productivity and quality performance achievements.

Stage 3 – managing closure

A timeline for the phased closure of the plant was clearly necessary. The milestones of the plan prepared were as follows:

- Closure announcement – 12 December 2000.
- Employment option choices announced – 13 December 2000.
- Employment option choices to be made by 19 January 2001.
- Publication of daily news updates start shortly after the announcement of the closure.
- All IBC transfers to be completed by 21 February 2001. From this date, a single shift production operation commences. This is planned to run until March 2002.
- Not all transfers were completed and deadline date delayed to 2 April 2001. About 972 hourly paid and 99 staff transferred, 100 below target.
- Employment services commence 17 April 2001. Skill audits were also carried out for all remaining Luton plant production employees.

Also clearly planned were the early retirement and separation programmes. The separation policy was that there would be no compulsory redundancies. The need to transfer over 1,000 employees to IBC vehicles was induced through financial incentives. Table III breaks down the choices made by employees (*Weekly News Update*, 5 April 2001).

How external expertise was deployed to facilitate the closure management process was described as follows:

Pathways was used as the training company (Pathways are independent training consultants who provided coaching sessions on coping with Plant closure). We explained to the employees that Pathways would be available to anyone who wanted one-to-one sessions (Production Manager).

As explained previously, the services of this company were offered only to those accepting a severance package or remaining in the employment of Vauxhall Motors Luton until closure. The management of the run-down of production to facility closure was coordinated by a multi-functional leadership team. Progress against plan was updated weekly and visually displayed on charts in a “war room” or the factory closure planning room.

During the time from facility closure announcement to its closure, the productivity of employees improved and the defects per vehicle were reduced in number when compared with the standards achieved prior to closure announcement. The reasons given to explain the improved manufacturing performances, within a plant destined to be closed, were as follows:

I think there are two things (to explain them). One is that you have a lot less things to focus on, I mean now that the decision is done and that you’re going to close from a business standpoint, a lot of things you work on go away. You have no more new products coming in so your engineering activity goes away. You have the last few months of a product that’s going to end, so you can really focus all your resources on very specific things, however many you have left. Whereas normally, in an ongoing business concern, you have a lot of interferences and a lot of other tasks and you have to participate in other teams. You have a lot of things on your plate. Here you have a lot less on your plate in terms of the business that has to be done. Obviously, there’s a lot of people things on your plate. From a business metrics (management task) perspective, it’s easy to focus (Site Director).

Stage 4 – managing investment in employees

The understanding of senior management about their responsibility for supporting their employees through the plant closure process was explained by one of the senior managers of the plant as follows:

[...] the strategy for dealing with the shock of the closure announcement was to manage the emotional cycle of the employees. There are four stages in the emotional cycle; shock, disbelief, anger and then acceptance. We knew we had to go through that and it was a matter of trying to get through shock and anger as fast as possible and with as little fallout as possible (Chairman and MD of Vauxhall).

Options indicated by employees	No. in production	Salaried staff
IBC transfer	972	99
Ellesmere port	16	16
Retirement/separation	660/1,200	172
Placed in other functional disciplines		62
Total	2,848	349

Table III.
Breakdown of choices
made by employees

The attention given by senior management to the “temporary survivors” who worked on the assembly line was not matched by their support for the young talent who were promoted to replace those managers who decided to leave. As reported previously in the paper, they received no formal training for their new role in production but were coached by their senior colleagues. Interviews with those survivors who transferred to the IBC sister plant substantiated a difference in treatment to those who chose separation. This latter group received counselling about leaving the company but those who chose to transfer were not granted the same opportunity for counselling. No personal support was provided for this change of employment and they felt that counselling could have eased their transition into their new employment.

This research also found that employees who were not retained received training through the Luton Vauxhall Partnership (LVP). The LVP was led by the East of England Development Agency with the aim of providing training for the attainment of National Vocational Qualifications (a national skills standard training scheme). Employment search services were provided by Vauxhall Motors Luton and consisted of both internal and external agencies.

Stage 5 – managing continuity of operations

How the continuity of operations was accomplished with production performances that exceeded previous standards was explained by one of the senior managers as follows:

When we went on to a single shift, that’s when we really started to motor, we really started to perform and again it was for a number of reasons; a stable workforce, standardised work is so much easier, just building cars on one shift is a piece of cake [. . .]. I mean the atmosphere in the place in the run-down was just unbelievable. We built our schedule right the way through. In fact we raised the line speed from November (2001) onwards, so we built more cars, we ran out early. As I said we had the performance audit; we had the best result ever on a J car on the performance audit (Production Manager).

Discussion of findings

There are conflicting research findings in the literature on the standards of manufacturing performance achieved following a downsizing decision and its implementation. The findings of this study are that the manufacturing performance of the “temporary survivors” was similar to that reported by Parr in Mishra *et al.* (1998), which differ from those of Murphy and Murphy (1996). It is clear from the interviews carried out during this study that the motivation of the “temporary survivors” was increased by financial incentives, for example, an attendance bonus. It is also clear that, as one senior manager reported, the “temporary survivors” also wanted to prove to the company management that the wrong plant had been chosen for closure. However, they are different from the survivors studied by Murphy and Murphy because their continued employment is only for a fixed term.

Many of the downsizing management practices, recommended by Mishra *et al.* (1998), have been employed by the Vauxhall factory management team, particularly those for dealing with the initial planning for downsizing and for the management of employee severance. However, a key deficiency in the management of the closure of the Luton plant was the support and training for the survivors who transferred to the IBC plant. This training was, in essence, minimal and purely directed at informing the transferees about the working practices employed in IBC. With reference to the value of

social networks to employees in a working environment (Verity and Jolley, 2008) and the need to facilitate their restoration, following their fracture through a transfer to a new facility, it is clear that little attention was paid to this for the survivors of the Luton plant closure. A management imperative to increase the production capacity of the IBC plant over-ride attention to this employee need. It is clear from the interviews held with those transferred to IBC that their integration into the culture of this new environment for them was more difficult than it should have been. It is likely that their performance in their new roles within the IBC plant will be similar to those depicted by the transition curve (Figure 2).

Conclusions and research directions

This case study has enabled an examination of some of the critical OM challenges to be faced, by both employees and their managers, following an announcement of a decision to close a manufacturing facility and the management of its operations until its closure. A key finding of the research is an estimate of the reduced level of production performance that should be anticipated during the time immediately following the closure announcement. This has been estimated by the production manager of the plant to be up to a 15 per cent decline in performance during the first three months following the closure of the Luton factory. The interviews held with both management and production employees suggest that the explanation for an immediate dip in manufacturing performance, following a factory closure announcement, can be explained by the transition curve model shown as Figure 2 in the paper.

Another conclusion drawn from this case research is that those responsible for managing a factory closure must be aware of the need to protect both the legacy and the corporate image of the owner company if talented employees are to be retained during the run-down of its operations. The significance of this facility closure management activity has not been emphasised previously in either the OM or HRM literatures on downsizing management.

Finally, the case study examined the extent of the use of the organisational knowledge that the company possesses about facility closure management. Paiva *et al.* (2008) have emphasised the value of accessing this type of knowledge for competitive advantage. In this case study, it was found that the knowledge of this process gained by GM from its previous plant closures was not sourced to its full extent. Tapping this organisational knowledge could possibly have reduced the costs of the closure of the Luton plant. It is evident from the findings of the case study that a number of financial inducements were used to achieve the factory closure vision but the total costs of closure were greater than they should have been.

It is recognised that the findings of this research are based upon a single case study of a plant closure that took place in 2002. The research interviews were also carried out two years after the plant closure although the events at that time are so traumatic that they seemed to be well-remembered. One of the limitations of the research design is that a single case study does not facilitate comparative analysis (Miles and Huberman, 1984, 1994) and does not transcend any “radical particularism” (Firestone and Herriott, 1983). There is, therefore, a need for a more comprehensive testing of the facility closure management model and the associated adaptation of the transition curve model.

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