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2011

Online at https://mpra.ub.uni-muenchen.de/89223/
MPRA Paper No. 89223, posted 27 Sep 2018 19:02 UTC

Learning from the failures of others: The effects of post-exit knowledge spillovers on recipient firms

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Abstract

Purpose – The purpose of this study is to examine the effects of post-exit knowledge diffusion created by departed firms on recipient firms.

Design/methodology/approach – This is an inductive and exploratory study that tries to understand questions of how and why. This research used a qualitative interview methodology and data analysis using within and cross-case analysis.

Findings – Analysis of the data revealed that recipient firms' strategic directions and organizational design are fundamentally shaped by the career imprint of the former managers of the departed firm.

Research limitation/implications – Practical and policy implications are identified and discussed. The study suggests that organizational failure should be viewed as having wider externalities on both markets and society as a whole. The demise of an industry incumbent should not be viewed as necessarily having a negative impact, rather as a strategic opportunity for new firms to enter and for existing ones to expand by drawing on the expertise released by its departure.

Originality/value – This paper makes an original contribution to the literature by integrating learning-from-failure, knowledge spillover and career imprinting theories to examine the post-exit effect of firm departure. The paper also counters prior emphasis of the extant literature on the relationship between work experience and job performance, which has focused mainly on experience within the current firm, overlooking the importance of work experience acquired in prior firms.

Key words: organizational failure; post-exit; knowledge spillovers; learning; Ghana

Introduction

Scholars from multiple social science disciplines have suggested that learning from other organizations' experiences is an important way that organizations acquire knowledge (Hoetker and Agarwal, 2007; Ingram and Baum, 1997; Yang, Phelps and Steensma, 2010). Faced with insufficient information from their own experiences, some firms have turned to the experiences of others for clues about how to interpret their own situation (Baum, Li and Usher, 2000). Since no firm can internally generate all the knowledge and skills required to respond to changes in their external environment, some have to turn to external sources such as suppliers, consultants and competitors to learn from their failures (Song, Almeida and Wu, 2003). Some scholars have suggested that organizations can accumulate valuable knowledge from others' failures by recruiting employees of departed firms to manage their operations (Delacroix and Carroll, 1983; Pe'er and Vertinsky, 2008). However, this is a questionable approach, given that such individuals were directly or indirectly responsible for driving their former companies to the ground and the social stigma associated with involvement in failure. Cannon and Edmondson (2005) put it this way, "Even though people may learn from and appreciate others' disclosures of failure, positive impressions of the others in question may be eroded in subtle ways through the disclosure process." On the other hand, Madsen and Desai (2010) cautioned that "organizations that stigmatize failure may be depriving themselves of major opportunities for improvement." Madsen and Desai (2010) suggested that top managers of businesses "should neither ignore failures nor stigmatise those involved with them; rather, leaders should treat failures as invaluable learning opportunities, encouraging the open sharing of information about them."

Although the last few years have witnessed a burgeoning stream of research that suggest vicarious learning from others' experiences is an important way to acquire knowledge (Hoetker and Agarwal, 2007; Ingram and Baum, 1997; Kim and Miner, 2007; Madsen and Desai, 2010; Thornton and Thompson, 2001; Yang et al., 2010), the extant literature has remained relatively silent on the effect of recruiting former employees of failed firms on recipient organizations (Hoetker and Agarwal, 2007; Knott and Posen, 2005). In fact, "the issue of whether other firms subsequently capitalize on knowledge created by companies that exit an industry remains under-researched" (Hoetker and Agarwal, 2007). In addition, the extant literature on the relationship between work experience and job performance has focused on mainly on experience within the current firm, overlooking the importance of work experience acquired in prior firms (Dokko, Wilk and Rothbard, 2009; Goldsmith and Veum, 2002; Quinones et al., 1995). This study seeks to fill these voids in our understanding by examining the effect of post-exit knowledge diffusion created by a departed firm on recipient firms. This paper is based on the experiences of former employees of a collapsed airline and how lessons learnt are being utilized in their current employers. The focus on emerging economies, in general and Africa, in particular, is extremely important because many new and existing firms have often failed partly due to blind imitation of success stories from developed economies' context. For decades, scholars and practitioners in business and management in the African setting have focused overwhelmingly on the so-called "an African success story" studies (e.g. Amankwah-Amoah and Debrah, 2009; Debrah and Toroitich, 2005; Mmieh and Owusu-Frimpong, 2009), whilst paying little attention to business failures and their effect on other firms. This study underscores the potential value of learning from failure in organizational studies literature (McGrath, 1999; Sitkin, 1992) and counters the prior overwhelming emphasis on the so-called "an African success story" studies. The wider focus on learning from others' failures may reduce blind imitation of successful organizations' strategies without attention to context (Sitkin, 1992). Organizations that fail to generate adequate lessons or clues from their own and other failures are likely to repeat them and risk their chances of success. In fact, some studies have suggested that that learning from others' failures may be even more valuable than trying to learn from others' successes (Sitkin, 1992).

The paper is organized as follows. In the next section, a review of the literature on organizational failure, knowledge transfer and career imprinting are presented. This is then followed by a description of the approach adopted to collect and analyze the data. The penultimate section sets out the key findings of the study. In the concluding section, the implications of the study and directions for future research are outlined.

Conceptual framework

Organization theorists have long contended that organizations not only learn from their own experiences, but also the experiences of others (Baum and Dahlin, 2007; Chuang and Baum 2003; Kim and Miner, 2007; Yang et al., 2010). The latter source of knowledge is most likely when a firm's own experience provides inadequate guidance for dealing with new challenges or opportunities (Baum and Dahlin, 2007; March, 1991). Ingram and Baum's (1997) suggested that organizations initially benefit from their own operating experience, but it eventually comes to hurt the organization. Some studies have suggested that learning from one's own experience can constrain the organization by leading it into "competency traps", where it devotes itself to perfecting existing work routines that are inevitably rendered obsolete by the changing world (Levinthal and March, 1993). To avoid these traps, firms must learn to incorporate the experience of others into their strategic formulations. In fact, learning involves replicating strategies and routines that have been successful (Kim and Miner, 2007) and unsuccessful in the other organizations. Scholars in the field of organizational studies have suggested that firms learn vicariously by observing others' decisions and the associated performance, and then imitating behaviours and actions that seem successful and avoiding those that seem unsuccessful (Cyert and March, 1963; March, 1991).

The theoretical and empirical research has reflected a clear divide on the effect of recruiting from failed firms. The extant literature indicates that there are both costs and benefits as organizations attempt to learn from the experiences from others (Dokko el al., 2009). Some studies have indicated some of the positive effects of post-exit knowledge spillovers on recipient organizations. For instance, it has been suggested that the exit of a firm in an industry frees previously occupied resources up for grabs to remaining competitors (Delacroix and Carroll, 1983; Hoetker and Agarwal, 2007). The exit of firms not only paves the way for the emergence of new organizations, but also releases skilled workers to the market for new and existing firms to compete for (Pe'er and Vertinsky, 2008). In addition, the exit also sends a signal to potential new entrants that the resources, expertise and customers that were previously tapped by the exiting firms have been released, and can now be taken over (Delacroix and Carroll, 1983; Messallam, 1998; Pe'er and Vertinsky, 2008). Past research indicates that firms constrained by their external relationships and internal routines and procedures, can recombine and deploy resources and capabilities released by departing mature firms to respond agilely to new environments (Pe'er and Vertinsky, 2008).

According to the knowledge spillover perspective, knowledge generated by failed firms is expropriated by surviving firms through sources such as employee turnover across firms, interactions with suppliers and customers, publications in the trade literature and patents (Hoetker and Agarwal, 2007; Knott and Posen, 2005; Yang et al., 2010). An organization manages and assembles the knowledge that resides individually and collectively among employees is likely to achieve better performance (Boone and Ganeshan, 2008; Tsai, 2000, 2001). Organizational knowledge management requires three essential capabilities: the acquisition of outside knowledge by the organization; processes for retaining and storing the existing knowledge stock; and the internal dissemination of knowledge across units (Adler and Clark, 1991; Darr, Argote and Epple, 1995).

Failure by others can stimulate organizations to find new ways to apply the insights and lessons drawn from their observations (Kim and Miner, 2007). However, learning the right lessons from failure is a difficult task. Some scholars have suggested that the value of others' experience for learning depends on comparability of the organizations and its difficulties or problems to the current organization (Baum et al., 2000). A firm is more likely to learn more from other firms' experiences by recruiting former employees, whose experiences might be more in line with the firms' current difficulties. In fact, it has been suggested that there is a positive effect on learning from the experience of other comparable organizations (Thornton and Thompson 2001). Some scholars have suggested that a firm can more easily access and exploit knowledge that is developed by other firms within its industry as compared to knowledge developed by firms outside of its industry (Henderson and Cockburn, 1996).

Learning from the failures of others is one of the most important sources of organizational learning to detect early signs of failure. Employees of failed firms bring with them lessons from failures that might have caused the exit of their former employer, which might not be visible to outsiders (Pe'er and Vertinsky, 2008). Failure challenges the status quo, existing views and knowledge bases (Madsen and Desai, 2010), which prompts organizations to search for clues about how to interpret their own situation and search for sources of competitive advantage to respond to changes in their external environment. Past studies indicate that firms learning from others' failure may be more likely to engage in environmental analysis and to actively interpret their observations (Sitkin, 1992). It has been suggested that that poor performance prompts organizational decision makers to explore their environment for solutions and to change strategies in ways believed to address the shortfall (Cyert and March, 1963). In today's global environment, firms must learn from the strategic setbacks of rivals, allies and departed colleagues to accumulate knowledge for global competition.

There is a body of literature, which suggests that vicarious learning affects strategic decisions in organizations. Levinthal and March (1993) noted that firms learn vicariously by observing others' strategies and practices in their industry. Some studies have suggested that firms engage in vicarious learning when making decisions such as which foreign market to enter (Greve and Taylor, 2000; McKendrick, 2001) and investment in new industries (Srinivasan, Haunschild and Grewal, 2007). Others have suggested that poor performance may indicate that flaws may exist in an organization's strategy or structure (Chuang and Baum, 2003). In a study of U.S. radio station chains, Greve (1998) found that firms were more likely to change their market strategies when their performance was below their aspirations. The demise of a firm in an industry provides others with a valuable opportunity to observe and learn, thus improving their chances of survival by avoiding strategies and actions taken by the failed firms (Levinthal and March, 1993).

Although most studies of experience and performance treat experience as a proxy for knowledge (Dokko et al., 2009; Quinones, Ford and Teachout, 1995), some scholars have suggested that when individuals move across firm boundaries, their prior experience may not be wholly beneficial (Dokko et al., 2009). This is because in addition to human capital, employees associated with failure may also bring a "repertoire of cognitions and behaviors acquired from prior jobs" (Beyer and Hannah, 2002), which may not fit in the new organizational context. As Dokko et al. (2009) put it this way: Experienced workers may "bring rigidities that act as baggage, weighing down their responsiveness or ability to reflect in the new situation." Higgins (2005: 9) defines career imprinting as the capabilities, connections, confidence and cognition that people develop as a result of a common set of career experiences. These experiences leave a lasting influence on the cognitions and behaviors of individuals, which shape their subsequent actions (Beyer and Hannah, 2002; Higgins, 2005). Some scholars have suggested that transferring lessons across boundaries could lead to a negative transfer of learning or the misapplication of skills, where previously acquired cognitive structures are inappropriately used in a new situation such that performance suffers (Gick and Holyoak, 1987; Hoang and Rothaermel, 2010). This occurs where an "experience gained in a prior activity is transferred to a new activity that appears to be similar on the surface, but is, in fact, fundamentally different" (Hoang and Rothaermel, 2010). Therefore, any social or human capital accumulated from failed firms could actually have negative effect on firm performance, rather than, the positive effects firms expected.

Valikangas, Hoegl and Gibbert (2009) suggested that employees associated with failure may develop “post-traumatic disorders”, which lingers for some time and restricts their ability to act posing serious threats to their organizations. When the business environment shifts as the “rules of the game” change, existing routines lead to inertia and prior knowledge and skills accumulated by individuals may be rendered irrelevant (Barnett and Freeman, 2001; Cohen and Bacdayan, 1994). Therefore, former employees of failed firms may bring negative career imprint to bear on the organization. The imprinting effects occur because individuals follow certain norms and behaviors which shape their subsequent actions. Managers from failed firms may bring cognitions and behaviors as part of their career imprint (Higgins, 2005) that can influence their assumptions about how work should be done and new situations be dealt with (Dokko et al., 2009). The paper argues that the career imprint (Higgins, 2005) of the key decision maker would play an influential role in shaping how organizations utilize lessons from failure in dealing with situations in their new employer.

A departed or exited firm’s knowledge residing in the human capital of former employees can, therefore, acts as conduits or mechanisms for its continued diffusion to other organizations (Hoetker and Agarwal, 2007). They are also able to provide private knowledge embedded in the departed firm’s organizational structure. Ingram (2002) put it this way, “the experience of a failed organization may be more likely to diffuse through employee mobility as participants in the failure go to new jobs.” Although the above studies provide many useful insights of learning from failure, our understanding of whether other firms subsequently capitalize on knowledge created by companies that exit an industry remains scant (Hoetker and Agarwal, 2007). Figure 1 summarises the theoretical discussion and the proposed relations between variables. The aim of the next sections is to apply and extend this framework in the examination of the post-exit effects on the recipient firms.

Insert Figure 1 about here

Research Setting

To examine the effect of post-exit knowledge diffusion on the recipient firms, this study followed the experiences of former employees of Ghana Airways in Ghana. The purpose of this study was not only to examine the causes of failure in their previous firms, but also how their experiences of failure are being utilized at current employers. Like many state-owned firms in the airline industry in Africa, the airline was created in the post-colonial era and had an underlying assumption of lifetime employment, so its demise had left the employees devastated and dumbfounded about their next step, since they had invested time, reputation, and career ambitions in the service of a now defunct organization. But, liberalization and deregulation in the industry has opened domestic, regional and international markets to competition. A most vital change was through the adoption of the Yamoussoukro Declaration (YD) on Market Access for Air Transport as Africa's blueprint to liberalization in 1988 (Amankwah-Amoah and Debrah, 2011; Endres, 2008). The adoption of the YD represented a shift in the competition landscape and ushered in a new era of competitive environment. These developments have paved the way for new firms to emerge and existing ones to expand (for a detailed discussion, see Amankwah-Amoah and Debrah 2009). The new firms have become major players to fill the vacuum following the demise of the incumbents.

Methodology

This paper is based on an intensive and longitudinal field study of how organizations learn and respond to changes in their environment. The data on which this paper draws were gathered as part of a larger study on firms in the airline industry in Africa. The author started observing the developments of Ghana Airways from 2002 when it was on the verge of bankruptcy after the national government was reluctant to fund its loss-making operations. So when the firm subsequently collapsed in 2004, the former employees were tracked and interviewed to examine the causes of failures and the post-exit effects. The tracking of developments in the recipients' firm was done to establish how they have utilized their experiences of failure. This longitudinal approach helped to track the scattering of the firm's key personnel within other firms in the airline industry. This approach is an accurate indicator of actual knowledge diffusion following the firm's departure. The focus on former employees is important because the causes of failure and the lessons may not always be visible to outsiders. Table 1 provides background information of the recipients' firms.

Insert Table 1 about here

Given a limited theory about the effect of post-exit knowledge spillovers on recipient firms, the study relied on inductive theory building using embedded, multiple cases to gain a deeper understanding of the subject (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). A qualitative study is appropriate in gaining a deeper understanding of vicarious learning from organizational failure and to understand how the recipients' new firm used such knowledge to improve their business (Yang et al., 2010). The multiple-case design adopted supports "replication logic", whereby a set of cases is treated as a series of experiments with each serving to confirm or disconfirm inferences drawn from the others (Yin, 1994). The multiple-case approach typically yields more robust and generalizable findings than single cases (Eisenhardt and Graebner, 2007). To better understand how the recipients' firms have benefited from the departure of the firm, eighteen former managers and eight non-managerial staff were interviewed. The informants acted as conduits of knowledge transfer in the organizations that subsequently hired them (i.e. the recipients' firms) and provided private knowledge that was embedded in the departed firm's structures and processes. In addition, five managers who were responsible for recruiting some of the informants were also interviewed to ascertain some of the effects of post-exit knowledge spillovers on their organizations' processes, operations, structures and decision-making processes. These informants were asked about specific knowledge and expertise brought by the employees to the company and what factors drove them to recruit from a failed firm. Because wholesale recruitment was considered unwise by all the recipient firms, recruiting key personnel with inside knowledge represented the main source. The semi-structured interviews with the former managers began by asking background questions about the industry, their firms' responses to changes in the external environment and liberalization, and strategies to accumulate human capital. They were also asked to talk about the causes of their former companies' demise, experiences of failures, lessons learnt, effect on decision-making and strategic formulations at their current employers.

The interviews were conducted between 2006 and 2009. Field notes were taken during the interviews and were transcribed immediately afterwards to help ensure the data reflected the informants' views. In addition, clarifications were sought from the informants throughout this process. In the data analysis, guidelines suggested by Eisenhardt (1989) and Yin (1994) were followed. All five cases were written out as standalone case histories. The within-case analysis allowed unique patterns of each case to emerge before the cross-case analysis was used to generalize these patterns across cases and categorised under common themes. Secondary sources such as press releases, newsletters, newspaper reports, trade magazines and company brochures were utilized to aid the analysis.

Findings: The effect of post-exit knowledge spillovers on the recipient organizations

The analysis revealed several distinct ways in which the recipient firms have capitalized on knowledge created by an exited firm. The experiences of failure have triggered learning in the recipient organizations. The recipient organizations were determined to ensure that they avoided the strategic errors of Ghana Airways and other major carriers such as Nigeria Airways that exited the industry in a relatively short period. These prompted them to recruit a number of former managers to acquire knowledge about the causes and lessons that could be derived. It has been suggested that a firm that possesses a particular type of knowledge would have little incentive to hire an employee possessing the same knowledge because employees are hired to fulfil ongoing needs for certain skills and capabilities that a firm requires (Davis-Blake and Uzzi, 1993). Rather**,** firms seek employees whose prior work experience is similar to the current needs of the organization because they expect that these employees will bring knowledge that enables them to be immediately productive (Rynes, Orlitzky and Bretz, 1997). As a manager at Firm D noted:

> *Looking back, before we recruited [name] and [name], we did not have the luxury of insider knowledge about what went wrong at Ghana Airways. We had limited press reports about the airline's problems, so when they arrived they brought rich knowledge that we did not have at the time.*

Similarly, as a former senior manager and a current executive at Firm B remarked:

> *The collapse of Air Afrique, Nigeria Airways and then Ghana Airways was a shock to everyone in the industry and imposed pressures on all airlines to learn the lessons…. when I arrived here there was a real urgency to learn from the failures.*

The departure of these firms provided a much needed impetus for all the firms to initiate a number of changes to respond to liberalization which had altered the competitive landscape. The firms were forced to re-examine and break some habitual routines and processes that had governed their operations for years. These have also led to the introduction of new routines and strategies to realign with the changes in the environment. In the subsequent sections, these issues are explored.

Human capital accumulation

Although the firm had exited in spite of its rich heritage of human capital and history behind it, it left a long lasting legacy by releasing experts such as pilots, technicians and engineers onto the market. The company possessed a range of experienced personnel across functional areas whose skills were widely considered to be underutilized by Firms A, B, C, D and E to achieve competitive success. Consequently, the former employees have turned up in disproportionate numbers at three of the firms (A, B and C). Many have assumed a senior management role and a key influence in their new employers' strategic decisions. The three firms seized on the knowledge to help them uncover unexploited market opportunities to increase their chances of success. For instance, information processing deficiencies in the originating firm relating to the accuracy, range of information processed (which markets were scanned for new opportunities) and dissemination of the information were considered to be major barriers to market exploitation leading to strategic errors, i.e. failure to identify opportunities on a timely basis. For instance, Firm B traditionally operated domestic services but following the arrival of the personnel, it has begun redeploying its resources to some regional markets where the new team identified as being underserved. The firm benefited from its departure in the early stages of development. Two senior managers recruited for their prowess and understanding of international markets following their prior work experience with other major African, Asian and European airlines in Europe and Asia have helped the firm to launch new services to these areas. This brought much needed expertise on board, for they understood the demands of international markets and lessons from their previous employers. A senior manager who recruited them from the departed firm stated:

> *When the airline started operations, for the first two years, our operations were hampered by insufficient knowledge of the regional market and lack of skilled personnel. So when Ghana Airways went to the wall, we took the opportunity and recruited six managers. They helped to put in place procedures, standards and enacted strategies to improve the business.*

The two have also assumed additional executive positions to allow them to instigate substantial changes to managerial practices and the overall business strategy to seize opportunities of the increasing liberalization in the industry in Africa. This has resulted in the introduction of new service and operational strategy to improve turnaround times and reduce costs through extensive outsourcing. As one of the senior executive recalled:

> *I think one of the problems we had was the inadequate search for alternative solutions to problems……what we have had to do is to send out an "army of staff" to pay attention to the environment and survey the market for opportunities. This led to elimination of less attractive routes and expansion to new ones. This year we launched new services in West Africa and seasonal flights to the Middle East.*

The accumulation of human capital has helped to lay down foundations for the challenges in the regional and international markets. By securing the former employees at the founding, Firm A was able to mitigate the risks of newness because of the expertise and associative legitimacy that the employees conferred on it, which compensated for the disadvantages of organizational inexperience. As a senior manager commented:

> *We had a number of experienced and skilled people that came directly from Ghana Airways, when this airline was lunched. Many of them have worked in the industry for decades and brought much needed legitimacy on the business. We also had the backing of the government which helped in this direction.*

The accumulation of this human capital at this stage in the firms' development laid down foundations and equipped it for the challenges in the global marketplace. In contrast, other new entrants in the industry lacked the expertise and market knowledge and suffered conditions of resource scarcity. Such resource-constraint firms are often forced to rely on more peripheral resources and relegated to the periphery of the industry (Amankwah-Amoah and Debrah, 2011). Although all the recipient firms wish to develop human capital internally, they operate in an environment characterized by the lack of a skilled workforce in the industry. Under these circumstances, the departure of the firm represented a strategic opportunity for them to recruit highly skilled personnel when they became available on the labour market. Since its formation in the 1960s, Firm E has accumulated decades of managerial expertise compared with those airlines that lack these skills owing to their newness in the industry, for example, Firms A and B. Yet, they have shown how to overcome this management deficit by recruiting executives and technical experts with decades of international experience from other failed airlines.

All the firms have acquired some expertise from a function unit in the departed firm. The recruits have brought much needed technical and managerial expertise including relationship capital – especially ideas on best practices and operating procedures. The knowledge possessed by these highly skilled personnel is largely tacit and has been accumulated through continuous training and work experiences, often over the course of a career, and therefore difficult to duplicate. As a company executive responsible for hiring at Firm D noted:

> *We were on the market for months seeking to recruit experienced mechanics and engineers, and were unsuccessful….When it all "blew up" at Ghana Airways and their staff were made redundant, it was a blessing for us to fill some of the posts that were vacant.*

In addition to the human capital accumulation, the wind-up of the airline was not only a break from previous practices in many African countries where failing state-owned airlines were offered support in the form of subsidies and tax relief so that they could remain in operation at all cost, but it also left a vacuum in the market for all surviving firms in the industry to compete in filling this gap. Many routes in the West African region were left unconnected since Ghana Airways was one of the very few airlines connecting those routes. The effects on competition were amplified by the fact that the airline exited a year after Nigerian Airways and few years after Air Afrique; they were the main service providers on these unconnected routes. As a result, a huge vacuum was left in the marketplace. The exits provided a strategic opportunity for some Firms B, C, D and E to launch new routes especially in the West African market. The recipient firms have benefited in this direction.

Organizational design: strategy, structure and processes

Organizations can learn vicariously by observing others' strategies and practices in their industry (Levinthal and March, 1993). Today's global environment requires firms to learn from the strategic setbacks and failures of allies and rivals to accumulate knowledge and avoid making costly mistakes. Allying with the right partner requires firms to draw upon prior industry experiences. Three firms (A, B and C) have placed greater emphasis on inter-organizational alliances and learning. Through the experiences of former managers, two of the firms (B and C) have focused on leveraging other resources and capabilities to achieve their strategic goals. Prior to the employees' arrival, Firm B was largely unallied and relied on its limited resources and capabilities which constrained its growth beyond the domestic services. Utilizing the resources and capabilities of regional allies such as access to advance technology for revenue management and personnel to help manage international operations, the firm has been able to launch new routes in Sub-Sahara Africa and Europe. The driving force for this strategic stand was that some executives observed that their former employer maintained such a position (of being largely unallied) for a long time, which contributed to its demise. This experience has brought and instilled a "new spirit of collaboration". Similarly, by developing alliance networks with major international airlines, Firm A has been able to engage in joint marketing arrangements to boost revenues by cross-selling each other's flights. These collaborative activities have helped this resource-constrained firm to leverage other resources and eliminate duplication of activities through joint marketing. A senior manager commented:

> *Looking back at Ghana Airways, we did not build strong alliances to advance our ends, whilst we had some European allies; we were mainly serving their interest…. when I arrived here the airline's activities were mainly "go it alone"… We had to avoid falling into the same traps….we redirected our focus and now we have allied ourselves to [name] through code sharing and [name] for ticket sales and distribution, and [name] for ground handling.*

These alliances have provided a competitive advantage relative to rivals in an industry where the competitive game has shifted from firm-versus-firm to group-versus-group leaving many firms operating on the margins of these arrangements (Amankwah-Amoah and Debrah, 2011). Recruiting the top managers from the failed firm has shaped the existing firms' strategic choices and ignited a greater awareness of general changes in the internal and external environment. This is an example of 'career imprinting' where a body of knowledge has been developed from their career experiences in one area and are broadly being utilized in a new environment (Higgins, 2005).

Organizational units not only hold specialized knowledge, but also have the opportunity to learn from other units (Hargadon and Sutton, 1997; Huber, 1991). For the recipient firms to exploit the knowledge of others, they need to combine this knowledge with additional knowledge from their own idiosyncratic knowledge context (Sorenson et al., 2006). Four of the firms (A, B, C and E) have bolstered their own technical knowledge by probing more deeply into the causes of failure in Ghana Airways and disseminating the information to other units. For instance, whilst the personnel recruited at Firms B and C were mainly in sales, finance and operations, their organizations believed that other units such as ground handling would benefit enormously from their insights. The existence of policies geared towards guaranteed lifetime employment in the departed firm meant that most of the informants have not circulated between firms over their lifespan. However, they have occupied a variety of roles within their companies over the course of their careers and accumulated insights across units over decades. This knowledge improved their ability to understand and deal with similar situations. One of the most wide-ranging changes initiated at Firm A was by an employee who was initially recruited to manage customers' bookings, but has been able to utilize previous business ties to establish new links and gained new business customers for the business. As a result, the manager has been allowed to extend his role by giving him responsibility for the overall sales and customer service operations. Such networks appear to be rather effective at attracting new businesses.

An efficient dissemination of knowledge is an important source of competitive advantage for firms operating in a competitive environment. To create a forum for learning, four of the recipient organizations (A, B, C and D) have instituted a number of measures to disseminate knowledge across units. For instance, Firm A has developed a cross-functional team consisting of the line managers to help ensure that small and large failures were subject to analysis so that lessons could be drawn. Some of the functions of the team included helping to assemble and disseminate knowledge through special executive meetings. By combining knowledge about other failures with their existing knowledge, all the firms have been able to create new knowledge that is essential for their survival in the face of increasing competition partly as a result of liberalization in the industry.

As indicated, all the firms have acquired human and social capital, but how they are utilized differ. For example, two line managers at Firm A were recruited for their work study skills but extensive marketing and information technology experiences have able to instigate substantial changes to managerial practices. They have used their prior experience to improve internal communications by introducing regular meetings associated with the implementation of a new online computer system and in so doing, move the business incrementally from its over-dependency on ticketing operations and reliance on travel agents. As noted by them, poor communications related to such a new system could stifle the smooth running of the system; a lesson derived from their previous jobs. This enabled the organization to spread critical knowledge about resources utilization and thereby prevent errors. One of the key factors that have fostered effective learning from failures has been the ability of the former managers to recognize similar or identical situations and the potential consequences in decline. This is exemplified by the following statement of a former finance executive and a senior manager at Firm B:

> *Prior to my arrival, the company was purchasing fuel in the northern region, whilst fuel was much cheaper in Accra. I calculated that we could save thousands of dollars each week by fuelling in Accra…I came against a lot of opposition and resistance from several corners too…. We had similar problems… but the only difference is that unlike my former company, I had the backing of the chief executive to make the necessary changes to save money and ensure we did not fall into the same trap as my previous employer.*

One of the key features in the Ghana Airways' protracted collapse was that once a weakness developed there was a tendency for additional debilitating problems to occur. For instance, the continuous failure to service debts and disagreements with allies led to their defection and loss of ties that had been established over several years. In addition, regular flight delays, over-bookings, regular occurrences of stranded passengers and poor customer services spanning over several years eventually drove a large sway of usually patriotic and loyal customers to the firm's rivals. In recalling some of the lessons drawn, a former senior manager and an executive at Firm B noted:

> *At my former company, as time goes on we reached a point where the writing was on the wall: we were losing customers to rivals because of the poor quality of service ... prolonging the decision-making process meant that measures were implemented so late that their chances of success were relatively killed off ... some of the things we have done here is to streamline the decision-making process.*

Latecomers firms such as A and B have been able to learn from the strategic failures of others. The knowledge has enriched and armed the firms for some of the challenges posed by the external environment.

Some of the key personnel hired into the more challenging exploration roles failed to lead to the discovery of new market opportunities and performance failed to reach the expectation of the recruiters. One of the major obstacles in transferring knowledge to the recipient firms was lack of necessary support structure in the form of colleagues from the originating firm. For instance, a sole manager hired into the sales team at Firm E was perceived to have made no major impact in terms of the operations or strategic direction of the firm. Similarly, a finance personnel recruited to Firms D also led to the same outcome according to the recruiter. These two firms appear to have overlooked the impact of supporting capabilities and networks in learning from the failure of others, focusing rather more on the expertise that new recruits bring onboard. The ability to accrue lessons from failure may partly depend on assembling the firm- and group-specific human capital. Overall, where more than one person was recruited to the recipient firms and the personnel held senior position, the firms acknowledge a significant impact on the operations and strategic direction of the firm. Due to the seniority of the managers recruited, they held sufficient power to apply what they learned from their previous employer as occurred at firms such as A, B and C.

Discussion and implications

This article sets out to examine the effect of post-exit knowledge spillovers on recipient firms. Using the experiences of Ghana Airways' former employees, the study reveals that the experiences of failure by the recruits have ignited learning and stimulated profound changes in the organizational structure and processes that guide strategic decisions. The former managers tend to develop better understanding of the early symptoms of failure and have played an important role in changing their organizations' culture and routines to respond to changes in their external environment. Consequently, the firms' strategies and responses to environmental threats are shaped by the imprinting of the managers from the departed firm. The study also shed light on recipient firms' strategies for harnessing the knowledge of departed firms to their advantage. Although failure has commonly been viewed as having negative externalities, this exploratory study indicates that the departure of the firm has led to positive externalities. The recipient firms have benefited from the released expertise onto the market, some of whom for years have had their growth hampered by factors such as lack of available skilled personnel and market knowledge.

Implications for theory

The study makes important contributions in advancing our understanding of organizational failure. First, in contrast to the assertion by Valikangas et al. (2009) that when failure occurs, some employees experience "post-traumatic disorders" which lingers for some time, and hinders their way of learning from future projects. The study found no evidence that the former employees' experiences of failure restricted their ability to act or pose a serious threat to their professional integrity in their respective organizations. Whether this can be attributed to cultural factors or the institutional environment is unclear, which represents a fruitful avenue for future research.

Second, the study counters prior emphasis of the extant literature on the relationship between work experience and job performance. It has focused mainly on the experience within the current firm, overlooking the importance of work experience acquired in prior firms (Dokko et al., 2009; Goldsmith and Veum, 2002; Quinones et al., 1995). Thus, the paper sheds light on post-exit effects on recipient firms' organizational design. It also sheds light on recipient firms' strategies for harnessing the knowledge of departed firms to their advantage. The paper also departs from much of the existing management literature which has often focused on success in general, and in developed countries in particular.

Third, the study contributes to the burgeoning stream of research that suggests that vicarious learning from other firms' experiences is an important way for a firm to acquire knowledge (Ingram and Baum, 1997; Kim and Miner, 2007; Madsen and Desai, 2010; Thornton and Thompson, 2001; Yang et al., 2010). Although past studies have suggested that the organizational knowledge may decay or depreciate in the face of a rapidly changing global environment (Baum and Ingram, 1998; Rao and Argote, 2006), they have largely failed to demonstrate on how it could be replenished. This study suggests that organizations could replenish depreciating human capital by recruiting employees of failed organizations to bring new perspectives in interpreting their current situations. Thus, attempting to address Madsen and Desai's (2010) call for more research into the mechanisms by which organizations learn from failure.

Practical and policy implications

The findings of this study have practical implications. First, the findings of the study suggest that organizational failure should be viewed as having wider externalities on both markets and society as a whole. The demise of an industry incumbent should not be viewed as necessarily having a negative impact, rather as a strategic opportunity for new firms to enter and for existing ones to expand by drawing on the expertise released by its departure. The study suggests that the demise of the firm and the employees recruited by the surviving firms were believed to have had a positive impact on the firms' performances. Therefore, firms should actively incorporate failed companies as a source of human capital and learning to improve their understanding of the business environment and the chance of avoiding costly errors.

Second, the findings suggest that firms should engage in more inter-unit collaborative arrangements to acquire and disseminate knowledge about failure. Firms should invest in the management of knowledge from failed companies by establishing a central unit to ensure effective coordination of units to facilitate inter-unit learning. By creating new inter-unit linkages, organizations would be able to access new knowledge that is embedded in other units. "Organizational units can produce more innovations and enjoy better performance if they occupy central network positions that provide access to new knowledge developed by other units" (Tsai, 2001). This point is reinforced by Hargadon and Sutton's (1997) suggestion that knowledge is imperfectly spread across individuals in an organization and that ideas from a unit or group can solve the problems of another if exchanges are made between the groups. Since the costs associated with misdirected learning can reach hundreds of millions in losses, it is essential that firms learn to draw the "right lessons" from failure (Finkelstein, 2006). Effective coordination of knowledge across functional boundaries is essential in this direction.

From the public policy standpoint, the findings suggest that government policies are geared towards supporting ailing state-owned firms and that they should be carefully evaluated to ensure that it's not stifling the progress of others. The study revealed that an exit firm has had some positive externalities that could have been lost by a government attempt to shore up the failing state-owned firm through subsidies, preferential treatment and tax relief, which has often occurred in the airline industry in Africa. As Pe'er and Vertinsky (2008) points out: "Governments can facilitate the release and recycling of the valuable resources and knowledge locked up in mature underperforming firms through flexible regulatory and tax policies, and educational and training programs." For these reasons, African governments should be encouraged to ensure a friendly regulatory environment through liberalization to create an enabling environment for competition to flourish.

Limitation and future research

The present study has a number of limitations. First, the study focused on a single industry and therefore the results of the study might not be generalized to other industries. For instance, the study observed that the top managers' experience of failures and knowledge of their firm's line of business was valuable in managing the complexity associated with the deployment of their firms' limited resources. Since the study examined the effects of the company's exit on firms in the same industry, it is critically important for future research to seek and to explore these issues in different industrial settings to assess the findings' generalizability. Second, the notable effects of the former employees on the firm might be due to the small size of the recipient firms and the seniority of the personnel recruited in this study. For these reasons, a future study should seek to examine whether size and/or seniority of personnel from departed firms have a different effect on their overall contribution. The efforts made here only scratch the surface of the subject and more work is needed to provide a better understanding of post-exit effects on recipient firms. This study should serve as a catalyst for more research on the subject in emerging economies.

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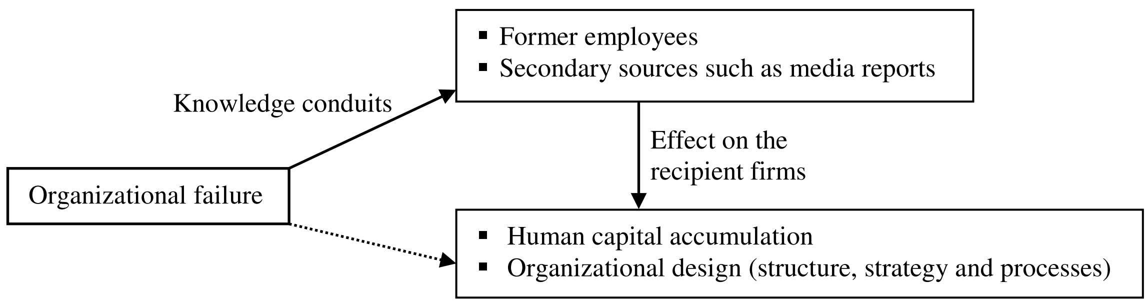

Figure 1: The post-exit effects on recipient firms

Table 1: Key features of recipient firms

Originating Firm	Recipient Firms	Founded	Number of employees
Ghana Airways	Firm A	2004	168
	Firm B	2003	100
	Firm C	1993	150
	Firm D	1992	308
	Firm E	1964	400