New Integration Strategies for Post-Acquisition Management

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New Integration Strategies for Post-Acquisition Management

Abstract

The post-acquisition integration phase is widely recognized as critical to the M&A process. However, post-acquisition typologies suffer from inadequate empirical support or lack of comprehensiveness. This empirical paper responds to calls for methodological pluralism in M&A research, and uses a mixed method to assess the robustness of a leading post-acquisition integration typology. Through multiple cluster analyses, different post-acquisition strategies are identified and qualitative techniques allow them to be further explored. This approach overcomes some limitations of single method research in M&A and results in a more robust, fine-grained and extended post-acquisition typology. It enables a more nuanced perspective on the coexistence of exploration and exploitation gains with implications for practitioners and researchers.

Keywords: Acquisition; Diversification; Exploitation; Exploration; Post-Acquisition Integration; Mixed Method; Typologies.
Introduction

The post-acquisition integration phase is now widely recognized as a critical part of the Merger and Acquisition (M&A) process, and a main source of value creation. However strategists have tended to neglect this phase, focusing their efforts instead on different motivations and strategies for M&A taking place (Bower, 2001; Halebian et al. 2009; Trautwein, 1990). The few studies which do research variation across different post-acquisition integration strategies suffer from being purely conceptual, or are based upon limited case data with partial coverage (cf. Haspeslagh and Jemison, 1991; Mirvis and Marks, 1992; Nahavandi and Malekzadeh, 1988; Siehl and Smith, 1990), or focus upon one particular integration strategy (Ellis and Lamont, 2004; Zaheer et al. 2013). These post-acquisition typologies are not comprehensive, and many have little firm empirical support. There is also good reason to suspect they do not capture important variations in post-acquisition management. Typologies from different perspectives indicate there could be other categories in existence (Angwin, 2012), and recent research has begun to recognize greater complexity in post-acquisition integration than previously realised (Graebner, 2004; Zaheer et al. 2013). These empirical, conceptual and methodological limitations present substantial obstacles to the coherence and value of post-acquisition strategy typologies; to academics wishing to theorize, and managers needing to make decisions. Post-acquisition strategy typologies need to be re-examined and revised if they are to be of value to both communities.

The gap in the M&A literature is well-recognized: there have been repeated calls for greater research focusing on acquisition implementation and effective integration (Angwin, 2000; Halebian et al. 2009; Haspeslagh and Jemison, 1991; Larsson, 1990), and for existing post-acquisition typologies to be placed upon firmer empirical ground (Faulkner and Teerikangas, 2012). "The inconsistent use of dimensions, confusing labels, lack of mutual exclusiveness and exhaustiveness have compromised the classificatory schemes to the extent that they hardly can be deemed as adequate systematizations of integration processes” (Larsson, 1990, 250). The lack of research to date may be due to the considerable difficulties inherent in obtaining sufficiently rich data on acquired companies (Capron et al. 1998; Ellis and Lamont, 2004; Zaheer et al. 2013). Nonetheless, these typologies need to be revisited critically for a robust post-acquisition strategy typology to be developed.
This paper addresses this need by reviewing the most prominent post-acquisition strategy typology in the literature by Haspeslagh and Jemison (1991). Their book, *Managing Acquisitions*, which describes the typology, has been cited 1,616 times (November 2013) in Google Scholar. This is nearly three times more than the next most-cited M&A book (Gomes et al. 2013). It also continues to be cited regularly in top strategy and general management journals including major Academy of Management publications, *Administrative Science Quarterly*, *Journal of International Business Studies*, *Journal of Management Studies*, *Organization Science* and the *Strategic Management Journal*. Indeed it was described as the seminal work on post-acquisition integration in 2013 in the *Journal of Management* (Zaheer et al. 2013). It also features prominently in Europe’s top-selling strategy textbook (Johnson et al. 2014) and M&A text (Sudarsanam, 2010). M&A researchers and practitioners rely heavily on this typology, but it has received little critical treatment.

This paper is structured in six sections. In section one, the literature review begins by outlining Haspeslagh and Jemison’s typology, and then discusses its limitations. Other post-acquisition typologies are then reviewed to determine their strengths, weaknesses, similarities and differences with Haspeslagh and Jemison’s typology, in order to identify shortcomings in the latter. Having established that there is reason to suspect Haspeslagh and Jemison’s typology is not complete, the approach to investigating the typology is described in section two. A novel mixed method, using quantitative and qualitative techniques, is used which responds to the call for new methods in M&A research (Meglio and Risberg, 2010) and the need for fine-grained methods to complement survey designs (Zaheer et al. 2013). In section three, results indicate some support for elements of Haspeslagh and Jemison’s typology whilst also identifying additional post-acquisition strategies. In section four, these results are discussed. The qualitative method enables a fine-grained interpretation of the new post-acquisition strategies beyond the detail obtained from the survey data. A new extended typology is proposed to present a more complete view of post-acquisition integration strategies than currently exists. In section five, the managerial relevance of the new extended typology is shown as it offers managers new ways to manage acquired companies and allows a richer set of strategic options than before. In section six, the conclusion argues that the evidence presented in the paper identifies new integration modes for further investigation and cross comparison. The evidence points to acquisition implementation being more nuanced and complex than it appears in extant research. It suggests
more attention should be paid to the difficulties of combining and sharing vertically and horizontally across organizations.

Post-Acquisition Strategy Typologies

Post-acquisition strategy typologies arose from dissatisfaction with pre-combination typologies in predicting performance outcomes. These early pre-combination typologies focused upon relationships between merging businesses particularly in terms of strategic fit, conceptualized as market and production relationships; e.g., Ansoff (1965), Kitching (1967), Lubatkin (1983), Salter and Weinhold (1988), and Shelton (1988). However, linking these strategic combination typologies to performance has been difficult. “The variety of findings on M&A performance indicates that there are no automatic performance effects. There [can] be no doubt that the relationships between combinations and their performance are mediated by the integration process” (Larsson, 1990: 44). In response, M&A strategy researchers have focused upon developing post-acquisition integration typologies. The most prominent and enduring of these, the typology by Haspeslagh and Jemison (1991), marries the strategic needs of merging companies with the need for post-acquisition organizational fit. This shifts attention from "potential” synergistic benefits towards "how” synergies may be realized. Specifically, their framework focuses upon two dimensions of Strategic Interdependence and Organizational Autonomy.

Strategic Interdependence, a central concept in strategic fit, suggests how interdependent merging firms should be in terms of capability transfer and resource sharing. This determines whether value will be created through (i) value capture, a one-time, transaction-related event involving shifting value from previous shareholders/stakeholders to the acquiring firm’s stakeholders; or (ii) value creation, a longer-term approach based upon managerial action and the transfer of capabilities between firms through mechanisms of resource sharing, functional skills transfer and general management capability. Such transfer creates value that would not exist if the firms operated separately, as these capabilities are immobile (Barney, 1991) and not easily exchanged on the markets (Dierickx and Cool, 1989; Capron et al. 1998). This requires integration of organizational structures, functional activities, systems and cultures, to create a functioning whole (Pablo, 1994).
Organizational Autonomy, a central concept of organizational fit, is concerned with the extent to which an organization’s culture is maintained or dissolved. Where a cultural boundary is disrupted through loss of autonomy, there is a negative impact on organizational culture (Buono and Bowditch, 1989; Nahavandi and Malekzadeh, 1988; Schweiger and Walsh, 1990) and embedded strategic capabilities—a target’s routines and processes can be undermined by lack of post-acquisition autonomy (Puranam et al. 2009). It is important therefore to allow a level of autonomy in terms of target discretion over decision-making, particularly when new and unfamiliar resources are brought to the acquiring firm (Puranam et al. 2006; Ranft and Lord, 2002). Maintaining organizational autonomy minimizes acquired firm disruption (Bresman et al. 1999; Ranft and Lord, 2002) and allows tolerance for multiculturalism (Nahavandi and Malekzadeh, 1988), as an acquired firm can continue with its own culture, which may be quite different from that of the acquirer.

These two dimensions create a 2x2 framework, in which Haspeslagh and Jemison observe empirically three distinct primary post-acquisition integration strategies: (1) "Preservation" (acquired companies require high levels of autonomy and low strategic interdependence to maintain their sources of benefit); (2) "Absorption" (acquired firms require low levels of autonomy and high levels of strategic interdependence. The boundaries between the firms are dissolved, and operations, organization and culture are fully consolidated into the parent firm); (3) "Symbiotic" acquisitions (acquired firms require both high strategic interdependence and high organizational autonomy to enable co-existence. Both firms becoming increasingly susceptible to a broad range of interactions as inter-firm boundaries dissolve).

Limitations of Haspeslagh and Jemison’s framework

Underlying the typology is the Resource-Based View of the firm—where value creation is only brought about by capabilities transfer. For this reason, the empirical data upon which the typology rests relates to acquisitions where capability transfer would take place (Haspeslagh and Jemison, 1991, Appendix A, 274), namely Absorption and Symbiotic acquisitions. They also found evidence that Preservation acquisitions exist: "The repertoire involved in successful preservation... is key in the early stages of many other acquisitions" (Haspeslagh and Jemison, 1991, p. 221). The framework conceptualizes a fourth type of post-acquisition integration
strategy: "Holding"—but no examples were found, as they were concentrating upon capability transfer mergers.

One limitation of Haspeslagh and Jemison’s research is relying upon the Resource-Based View of the firm to determine the case data the authors use. By focusing solely on value creation acquisitions (related acquisitions), they do not collect data on acquisitions that are not driven by a value creation strategy (unrelated acquisitions). Companies may be acquired purely to capture rather than create it. For instance, an acquirer may purchase a company in a different country in order to benefit from exchange rate differentials (Sudarsanam, 2010), to explore a new territory, or to benefit from its stock market listing. These could be valuable to the acquiring company, but do not involve a value creation process through integration per se. The Haspeslagh and Jemison typology is created from a partial set of acquisition strategies and so may ignore other potential integration styles, where capability transfer may not be a primary intention of the acquirer.

Empirically, the typology rests on just seven acquisitions where the sample was chosen to minimize the variance in the phenomenon being studied (strategic capability transfer), whilst maximizing the variation of situations where the phenomena is found (Haspeslagh and Jemison, 1991, p. 275). While this is a robust approach for understanding acquisition integration in related acquisitions, the small numbers of cases reduces the confidence one can have in their inferences for other types of acquisition. In addition, their framework has not been tested for robustness.

One concern about the underlying dimensions of the typology (Autonomy vs. Strategic Interdependence) is the extent to which they can be regarded as truly orthogonal to each other. Capron et al. (1998) suggest that autonomy is correlated with the transfer of information between firms post-acquisition. Puranam and Srikanth (2007) observe that there is an apparent paradox between coordination and autonomy. Zaheer et al. (2013) suggest autonomy and integration might be negatively correlated, although this was not statistically significant in their study. Organizational integration mechanisms can enhance knowledge transfer and coordination between acquirer and acquired organizations, but can also significantly disrupt organizational processes in the acquired firm due to the reduction in its organizational autonomy (Haspeslagh and Jemison, 1991). However, if one adopts a sub-organizational perspective, different parts of an organization may integrate to different degrees (Ranft and Lord, 2002), so that autonomy and interdependence can appear to co-exist at an organizational level (Graebner, 2004). Zaheer et al. (2013) argue that the need for interdependence is likely to overcome the need for autonomy in
certain cases. If interdependence and autonomy dimensions of this typology are not orthogonal, then the case for multiple post-acquisition integration styles is undermined.

In addition, Haspeslagh and Jemison (1991) do not take into consideration the condition of the acquirer and target companies pre-deal. For instance, the prior financial health of target companies may affect post-acquisition performance (Kitching, 1974; Kusewitt, 1985). Target companies in poor financial health may require significant differences in integration management—compared to targets in good financial health (Castrogiovanni and Bruton, 2000)—such as the need for immediate investment post-deal, directive handling, organizational restructuring and top management change (Angwin and Meadows, 2013). The imperative, created by prior poor financial health in the target company, may act to influence post-acquisition integration style, even though prior strategic intent may suggest less interference from the parent.

Therefore, on the grounds of lack of comprehensiveness, partial data, potentially correlated axes, no consideration of pre-deal condition of the target company, and the typology not having been tested, this framework, while dominant in the M&A strategy literature, needs to be reassessed. In addition, there are other existing post-acquisition typologies that may further inform Haspelagh and Jemison’s typology.

Other Post-Acquisition Typologies

Other disciplines are rich in post-acquisition typologies, and there have been subsequent typologies in the strategic management literature (see Angwin 2012, for a review). From cultural (Cartwright and Cooper, 1992, 1995; Nahavandi and Malekzadeh, 1988; Siehl and Smith, 1990), psychological (Mirvis and Marks, 1992, 2003), and human resource perspectives (Napier 1989), many argue for four or even five distinct post-acquisition integration approaches. For instance, the well-known conceptual framework by Nahavandi and Malekzadeh (1988), derived from earlier work by Berry (1983) on how groups adapt to conflict, investigates how organizational cultures may align in the post-integration phase. Their a priori typology dimensions for acquiring companies of (i) existing level of multi-culturalism in the acquirer, and (ii) diversification strategy, indicate four acculturation styles of (1) "Separation" (preserving target culture and practices by remaining separate and independent from the acquirer); (2) "Assimilation" (target adopts identity, culture, practices and systems of the acquirer, and so ceases to exist as a cultural
entity); (3) "Integration" (target’s employees try to retain their basic assumptions, beliefs, cultural elements, organizational practices and systems which make them unique, but are willing to be integrated into the acquirer’s structure); and (4) "Deculturation" (cultural and psychological contact between the merging firms is lost). The strength of this typology is that it focuses attention upon the degree of acculturative stress that employees in both companies may experience. The weaknesses of the typology are that it assumes acculturative stress is negatively linked to integration performance, and ignores ways in which value may be captured or created. It also does not consider structural or functional changes to either organisation, and is a static snapshot of organizational culture at the time of integration.

An alternative empirical typology focuses upon interpersonal relations and conflict, suggesting four integration styles; (1) "Pillage and Plunder" or "asset stripping" (acquired firm is broken up, with valuable assets retained and the remainder disposed of); (2) "One Night Stand" (an intense financial but otherwise superficial relationship between merging firms with minimal integration); (3) "Courtship/Just Friends" (acquired firm remains independent and a stable working relationship is achieved whilst maintaining operational and cultural differences between firms); and (4) "Love and Marriage" (complete organizational integration of both firms, to create a new stronger entity) (Siehl and Smith, 1990). The strength of this typology is that it is grounded in data and focuses attention upon the emotional and moral qualities of integration. It relies upon the concepts of Autonomy in terms of decision-making authority, which has long been identified as important to M&A (Buono and Bowditch, 1989; Hayes and Hoag, 1974; Marks, 1982). It also focuses attention upon the importance of top management retention and how this may vary by post-acquisition integration type. However its weaknesses are that organizational performance is inferred from whether top management is retained or not with no advice about how value could be created, captured or destroyed, and the structural implications of different integrations. The dimensions to the typology are not made explicit and the data set is very small.

Mirvis and Marks (2001) juxtapose the cultural and operational changes experienced by merging firms to conceptualize five different post-acquisition integration styles. They suggest (1) "Preservation" (keep acquired company culture with low integration and few post-acquisition changes); (2) "Absorption" (assimilate acquired company culture and organization into the parent); (3) "Transformation" (both firms undergo fundamental changes in culture and operation
to reinvent the merged firm); (4) "Reverse Takeover" (a rare case where the acquired company leads post-acquisition integration efforts); and (5) "Best of Both" (an acquisition of equals with full cultural integration, and partial or full organizational consolidation). Their typology dimensions are the degree of change in the acquired company and in the acquiring company, as these reflect the extent of cultural upheaval. The strengths of this typology are that it focuses attention upon the extent of cultural changes in both companies during integration, and the importance of top management retention or change. The typology also suggests that there may be five styles of integration. However, the weaknesses are that it is an untested conceptual framework that regards cultural change as a performance outcome; it does not focus on how value might actually be created or captured; and gives little attention to functional and structural changes.

In strategic management, a recent taxonomy by Zaheer et al. (2013) addresses the issue of whether autonomy and strategic independence used in the Haspeslagh and Jemison (1991) typology can be orthogonal. By considering a subset of M&A types, they focus on "related" deals only and observe acquisition integration may be affected by whether the companies are "similar" to each other or "complementary". This refinement of previous research, which treated related deals as singular in nature and requiring just high integration (Larsson and Finkelstein, 1999), allows for the recognition that these types of relatedness can require different levels of autonomy—with similar companies requiring high levels of integration and low autonomy, and complementary deals needing high levels of autonomy and low levels of integration. In addition, they discuss the case of The Body Shop and L’Oréal as an example of target firms exhibiting both similarity and complementarity. The strength of this taxonomy is that it focuses attention on pre-deal characteristics of the protagonists, rather than just post-acquisition as in the Haspeslagh and Jemison (1991) framework. However, it really only succeeds in substituting the term autonomy with "complementary" and interdependence with "similarity" and so provides little additional insight into the Haspeslagh and Jemison (1991) typology. Also, it suffers from the same weaknesses, namely that they fail to consider other types of M&A apart from "related" deals; e.g., "vertical complementary" or "unrelated" deals. They also end up with a fourth category that cannot be explained in terms of their data, except to say it is "residual"— rather like Haspeslagh and Jemison’s (1991) “Holding” category. In addition, from their single-method quantitative research design they are unable to provide insight into the actual functional and
structural changes that take place within the categories they have identified.

Both Zaheer et al. (2013) and Haspeslagh and Jemison (1991) identify the complex interaction between competing needs of autonomy and interdependence. Graebner (2004) has investigated this interplay in Symbiotic acquisitions, through detailed examination of managerial action in high technology firms using grounded research, and concludes there is greater innovation in integration than is captured in this category. Here the interaction between autonomy and interdependence is conceptualized as the interaction between exploration and exploitation (March, 1991), which are essential for organizational survival (e.g., Eisenhardt and Martin, 2000), but are in perpetual conflict (March, 1991; Levinthal and March, 1993). Graebner (2004) suggests organizations can manage this conflict by engaging in both exploitative and exploratory innovation, by using various re-combinations. This suggests that "pure" play integration styles conceptualized by Haspeslagh and Jemison (1991) may not allow consideration of other integration approaches that might consist of interplay between "pure" post-acquisition integration styles. For instance, as Graebner (2004) suggests, there could be different levels of integration with acquiring managers working across some functional areas in a serendipitous way, perhaps where there is a degree of familiarity, with other unfamiliar areas left un-integrated. Conceptually, there might also be a vertical difference with a degree of structural coordination in terms of administrative systems, finance, HR and IT services; i.e., whilst leaving business units alone with significant decision-making autonomy. To use Haspeslagh and Jemison’s (1991) terms to further illustrate the point, an acquisition may have elements of Preservation, as it is complementary to the acquirer, requiring a high level of autonomy, but also need significant levels of integration in terms of HR and finance to achieve similarity. This would not be a Symbiotic acquisition, as there would be little or no integration of business units. Similarly with Absorption acquisitions, where there is a high degree of similarity and extensive integration, it may make sense to keep some business areas apart because of particular working practices, managerial politics, cultural differences or key customer requirements. Haspeslagh and Jemison (1991) and Zaheer et al.’s (2013) "pure" play integration possibilities do not allow for a greater range of integration possibilities through deliberate choice of selective integrations—or selective exploitation and exploration.

Post-Acquisition Typology Coherence and Difference
The post-acquisition typologies mentioned above suggest there could well be more than just the three integration strategies observed directly by Haspeslagh and Jemison (1991) and their additional conceptualized integration strategy. In order to generate clues about missing post-acquisition strategies, a degree of comparison between the typologies is possible, as they resonate in some ways with each other in terms of content. For instance, Haspeslagh and Jemison’s "Absorption" strategy appears similar to Nahavandi and Malekzadeh’s "Assimilation", Siehl and Smith’s "Pillage and Plunder", and Mirvis and Marks "Absorption" styles, where the acquired company is an asset base to be raided. Its valuable components are integrated into the parent, where they adopt the parent culture, practices and systems, and the remainder is disposed of: the acquired company ceases to exist. Haspeslagh and Jemison’s "Preservation" strategy appears to be similar to Nahavandi and Malekzadeh’s "Separation", Siehl and Smith’s "Courtship/Just Friends", and the Mirvis and Marks "Preservation" styles, where the acquired firm’s culture and practices are maintained by being kept independent from the acquirer. Haspeslagh and Jemison’s "Symbiotic" strategy appears similar to the "Integration" style identified by Nahavandi and Malekzadeh, Siehl and Smith’s "Love and Marriage", and the Mirvis and Marks "Transformation" styles, where the acquired company retains its core assumptions, beliefs, cultural elements, organizational practices and systems which make it unique, but at the same time works with the acquirer in a reciprocal and mutually trusting way to achieve integration over time. Neither firm dominates the integration process.

Where there is variation between the typologies and Haspeslagh and Jemison’s (1991) typology is the potential existence of a fourth integration style. Nahavandi and Malekzadeh describe a "Deculturation" style, and Siehl and Smith a "One Night Stand" style, where acquired employees lose cultural and psychological contact with the acquired firm. Mirvis and Marks suggest a "Reverse Takeover", with the acquired firm dominant in the relationship. Zaheer et al. (2013) identify a fourth integration style by default, and have no empirical evidence to explain this category further. There are also suggestions that there could be sub-styles within categories. Haspeslagh and Jemison’s Symbiotic category has received most attention, where firms work together on an equal basis to achieve best of both results. Indeed, Mirvis and Marks conceptualize a "Best of Both" style—an egalitarian approach to integration—and Ellis and Lamont (2004) identify a "Transformation" style as an important subset of "Symbiotic" integration styles, as it goes beyond full collaborative integration of both companies by
reinventing the two firms. These areas of coherence and difference are illustrated in Figure 1. The shaded boxes indicate coherence between frameworks, the white box indicates an under-researched part of the typology and the circle suggests a subset of an integration strategy.

**FIGURE 1**

**COHERENCE IN POST-ACQUISITION INTEGRATION STYLES**

<table>
<thead>
<tr>
<th>Need for Acquired firm level of autonomy</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>‘Deculturation’</td>
<td>‘Preservation’</td>
</tr>
<tr>
<td></td>
<td>‘One night stand’</td>
<td>‘Separation’</td>
</tr>
<tr>
<td>Need for Strategic</td>
<td></td>
<td>‘Courtship/Just Friends’</td>
</tr>
<tr>
<td>Inter-dependence</td>
<td></td>
<td>‘Preservation’</td>
</tr>
<tr>
<td>High</td>
<td>‘Absorption’</td>
<td>‘Symbiotic’</td>
</tr>
<tr>
<td></td>
<td>‘Assimilation’</td>
<td>Integration</td>
</tr>
<tr>
<td></td>
<td>‘Pillage and Plunder’</td>
<td>‘Love and marriage’</td>
</tr>
<tr>
<td></td>
<td>‘Absorption’</td>
<td>‘Best of Both’ / ‘Transformation’</td>
</tr>
</tbody>
</table>

Key: Order of Styles
- Haspeslagh and Jemison (1991)
- Nahavandi and Malekzadeh (1988)
- Siehl and Smith’s (1990)
- Marks and Mirvis (1992, 2001)

Even for those categories that appear to coincide across typologies, no empirical tests have been carried out to establish the veracity of these frameworks across a population of acquisitions. The few tests that exist, focus upon specific subsets, such as strategic acquirers and related acquisitions. Tests on subsets of M&A have lent some credence to the existence of some of the distinct post-acquisition integration strategies outlined above. For instance, Puranam and Srikanth (2007) focused upon the acquisition of 97 small high technology-based acquisitions by
43 acquirers. They distinguish two archetypes of post-acquisition integration for acquirers to leverage technology acquisitions: structural integration and structural separation (Puranam and Srikanth, 2007, 806). In structural integration the acquirer is leveraging what the acquired firm "knows", and in structural separation the acquirer is relying upon the acquired firm’s ongoing innovation capability to leverage what the acquired firm "does". These two archetypes resonate with, and support, Haspeslagh and Jemison’s (1991) Absorption and Preservation styles. Ellis and Lamont (2004) aimed to discover the dominant types of integration for a subset of M&A: related acquisitions. They concluded that there was sufficient evidence to support the existence of Haspeslagh and Jemison’s (1991) three categories of Preservation, Symbiotic and Absorption, and they suggested the Symbiotic category be refined to include a "Transformational" style (discussed earlier). Later work on top management type also provides evidence of distinct differences between Haspeslagh and Jemison’s (1991) three categories (Angwin and Meadows, 2009) and indicates that Holding acquisitions may be a viable fourth type of integration strategy in these terms.

The preceding discussion suggests that no one framework has yet captured all the nuances of post-acquisition integration styles, and that there is good reason to suspect there are distinctive post-acquisition integration styles not yet captured in existing strategy typologies. It is important therefore to test post-acquisition integration typologies in order to place them on firm empirical ground. Haspeslagh and Jemison’s framework has been chosen as the focus of the analysis in this paper, as (i) their framework has assumed uncritical dominance in the M&A literature on post-acquisition integration; (ii) their data set was small and uneven, and focused upon a subset of related M&A deals with data drawn from seven case studies with various other supporting pieces of data; (iii) their typology dimensions maybe correlated; (iv) other typologies in the M&A literature appear to confirm empirically three categories in the typology but also raise questions as to whether it presents a complete set of integration possibilities; (v) they identify a "Holding" category but, in the absence of any empirical evidence, can only infer the nature of this style; (vi) subsequent research gives reason to believe there could be other integration styles which reflect more complex integration possibilities. Their framework also does not consider the pre-acquisition financial state of the protagonists, which may affect the choice of integration strategy (Castrogiovanni and Bruton, 2000; Angwin and Meadows, 2013), they view post-acquisition integration as something that happens to the acquired firm and they
ignore the role of leaders as active participants in the process (Angwin et al. 2004; Angwin and Meadows, 2009, 2013; Graebner, 2004), when several typologies focus upon the importance of the retention or dismissal of the target CEO of vital importance to outcome (Angwin, 2000, 2004a; Mirvis and Marks, 2003; Siehl and Smith, 1990; Zollo and Singh, 2004).

Through testing with different, more carefully controlled data in this paper, Haspeslagh and Jemison’s framework may be (1) confirmed in its observations; (2) refined through additional insights into their post-acquisition type characterizations; (3) extended through the addition of further post-acquisition types; (4) overturned. Results from this analysis will allow post-acquisition typologies to lie upon firmer empirical foundations. They will also enable further research to develop upon the characteristics of different post-acquisition integration strategies.

Method
To research the incidence of different M&A integration strategies, a method capable of generalization was required. However, to understand and further explore these patterns in terms of the changes made to acquired companies post-acquisition, rich qualitative data was also needed. This necessitated a novel mixed-method approach to the research, where quantitative techniques were deployed in order to achieve generalisability of results across our sample of acquisitions, and qualitative techniques were used to achieve explanation for different types of post-acquisition integration change. In practice the method consisted of two phases—a "dominant" quantitative method followed by "less dominant" qualitative investigation, where the quantitative part provided a statistical backbone of generalizability for the enquiry, and the qualitative method allowed further fine-grained exploration and interpretation of the statistical results. This mixed strategy, conceptualized by C.C. Ragin (1987, 2008) in his prize-winning work on the limitations of single method approaches in social science research, argues quantitative analysis assumes away causal complexity and qualitative methods lack tools for generalizability. Through combination, or mixing, the benefits of cross-grained methods can be combined with the strengths of fine-grained methods. This "technical", rather than epistemological position regarding mixed methodology, views these research strategies as compatible and desirable (Bryman, 2008). This is a form of pragmatism that offers a well-developed and attractive philosophy for mixed methods research (Johnson et al. 2007).
Specifically the method might be described as an example of "pragmatism of the right", meaning a moderately strong form of realism with a weak form of pluralism (Rescher, 2000).

Using a mixed method, we provide an innovative way of studying M&A (Angwin, 1999; Angwin and Meadows, 2009) that also responds to recent calls for new methodological approaches to the study of M&A in the Scandinavian Journal of Management, (Meglio and Risberg, 2010) and for mixed methods in particular (Cartwright et al. 2012). Indeed, Zaheer et al. (2013) also bemoan the limitations of their survey-based method, and exhort researchers in M&A to pursue more fine-grained research to complement quantitative analysis such as their own. This is what we have done in this paper.

The quantitative part of the research consisted of a questionnaire survey designed to allow cluster analysis of responses to identify distinct M&A types. This analysis provided a quantitative framework within which qualitative investigation could later take place. The qualitative part of the research consisted of interviewing multiple CEOs of acquiring and acquired companies in each M&A type, identified by the cluster analysis. This allowed explanation and deeper understanding of different post-acquisition integration strategies than could be achieved by quantitative methods alone.

Sample and Data Collection

The data for analyzing post-acquisition integration strategies was gathered from the UK, one of the most active M&A markets outside the US. In 2011, the UK accounted for US$130,554m and 1,779 deals, second only to the US ($874,753m and 9,759 deals) (Bloomberg 2011). A list of all "corporate" acquisitions that took place over three years in the UK was constructed from the Thomson Reuters database. "Corporate acquisitions in the UK" are defined as "the acquisition of complete UK companies by other UK companies". This distinction of "complete companies" was used to capture the full range of post-acquisition organizational changes possible. No criteria were set for the strategic nature of the M&A—such as "related" deals—as the purpose was to capture the breadth of types of M&A. To be included, deals had to be over £8m (US$10m) in consideration, as a visual inspection of the quality of data for smaller deals revealed it to be uneven.

1 "Complete" company means buying a whole standalone corporation. This excludes purchasing (i) a subsidiary, or (ii) assets.

2 The researchers manually examined 20 deals of less than £8m, and found data reporting to be patchy.
The postal questionnaire was sent out to the managing executive of 232 target companies, where two years had elapsed since transaction date. This initial mailing was followed up by telephone call to encourage response. Questionnaires were returned from 70 acquired companies, a response rate of 30.17%. A further telephone call was made to ensure respondents had personally filled in the survey. This response rate is good for surveys in general and very good in the acquisition field (Datta and Grant, 1990). It is worth noting that other researchers have regarded accessing managing executives of acquired companies as "difficult or impossible" (Capron et al. 1998), and the few other studies of post-acquisition integration that exist exhibit similar or lower levels of responses; e.g., Zaheer et al.'s 2013 report on 68 acquirers, and the Puranam et al. 2007 report on 43 acquirers.

The focus of our attention for the questionnaire survey was the executive in charge of managing the acquired company post-acquisition. For a strategic view of change in the post-acquisition phase, the managing executive is the key person responsible. They act as a critical interface in articulating events to group management and outside stakeholders and are "squarely in the middle" between merging organizations. This pivotal position places them in a prime location to observe change in the acquired company and to be a "key informant" on post-acquisition integration. The advantage of key informant research, often seen in strategic management studies (Datta, 1991; Chatterjee et al. 1992; Very et al. 1997), is that it is an economical approach to gaining "global data", and these key informants are appropriate for strategic issues.3

Cluster analysis was then performed on the questionnaire data, and this framed 21 subsequent field interviews with the CEOs of acquiring and acquired companies. These interviews provided a rich source of data about how key informants accounted for post-acquisition integration changes. Interviews took place on site, and lasted between one and one-and-a-half hours. Interviews were recorded and transcribed, and the data analyzed using inductive qualitative techniques (Bryman, 2008; Glaser and Strauss, 1967). Accordingly, the analysis consisted of multiple readings of the interview transcripts, from which a rich set of change themes emerged for each post-acquisition integration strategy (King, 1994; Yin, 2003). The interview data added meaning and interpretation to the different post-acquisition integration strategies identified by the quantitative analysis. This enabled a richer understanding of the

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3 The interview protocol is available from the authors on request
differences between each post-acquisition strategy than could be achieved by the quantitative part of the research on its own.

Variables and Measurement

Section A of the questionnaire survey consisted of questions about the basic characteristics of the respondent and the firms involved in the M&A. In particular, information was elicited about the financial state of the target prior to acquisition, size characteristics, and the identity and background of the executive managing the acquisition. Section B of the questionnaire survey focused upon the dimensions of the Haspeslagh and Jemison framework: the "need for organizational autonomy" and the "need for strategic interdependence". The "need for" concept, or the operationalization of a dynamic, was omitted due to a high degree of coincidence in integration style throughout the acquisition process (Hespelag and Farquhar, 1994, 435). Although autonomy may be a multidimensional construct, its items are highly correlated and can be assessed with one question (Datta and Grant, 1990). On this basis, level of autonomy was assessed by the following question: "To what extent do you feel that the acquired company is autonomous from the parent?"

Strategic interdependence was assessed by three questions: "To what extent has there been a transfer/sharing of (i) physical assets? (ii) personnel? (iii) knowledge or information?" These aim to capture Haspeslagh and Jemison’s categories of resource sharing, transfer of functional skills, and transfer of general management capability. The issue of knowledge transfer was made explicit in the questionnaire as academic developments since their work argues that knowledge is perhaps the most strategically significant resource of the firm (Grant, 1996). For firms to grow effectively, they need to continuously acquire and recombine knowledge (Kogut and Zander, 1992). Non-proprietary external knowledge can be a source of strategic advantage, if it can be acquired and integrated post-acquisition to create value. Indeed, studies suggest that for some industries the goal of acquisitions is to expand the knowledge base of acquirers (cf. Ranft and Zeithmal, 1997). It is also recognized that knowledge transfer can be difficult to achieve, depending upon organizational autonomy (Inkpen and Dinur, 1998), amongst other things. By focusing upon knowledge transfer and organizational autonomy, a resulting typology enables hypothesis generation around knowledge transfer, organizational context and integration performance. Although we recognize there are other conceptions of knowledge—such as
knowing "activities" (Spender, 1996) rather than knowing "bundles", which can be shifted about (Eisenhardt and Santos, 2002)—in this research context we view knowledge as an objective and transferable resource: it can be acquired, transferred and integrated to achieve strategic advantage.

The assessment of the two axes of the Haspeslagh and Jemison contingency framework, level of strategic interdependence and level of autonomy, relied upon 5-point Likert scales. On the autonomy axis, a score of one indicated very low autonomy and a score of five, very high autonomy. On the strategic interdependence axis, three scales were used for the three categories, ranging from a score of one, to indicate very low transfer/sharing, to a score of five, meaning very high transfer/sharing.

Section C of the questionnaire survey focused upon post-acquisition changes that had taken place in the acquired firm. Despite the wealth of post-acquisition literature, there is little systematic coverage of the changes that take place in the post-acquisition period. The change variables used were drawn from the acquisition and turnaround literatures (cf. Grinyer et al. 1988; Slatter and Lovett, 1999), and the taking charge literatures (Gabarro, 1987; Kotter, 1982). The change variables taken from these studies were disaggregated from their original categories and reordered into functional groupings for the convenience of respondents. Each functional grouping was then tested using Cronbach alpha for internal consistency and reliability. Each functional category comfortably exceeded the minimum acceptable level of .7 (Kline, 1993, 10). These groupings were changes in managing executives, finance, marketing, communications, human capabilities, operations and I.T. The questions asked whether each change had taken place and at what time it started. Data was also gathered on the impact and difficulty of implementation using a 5-point Likert scale, with 1 being low and 5 high.

Analysis
Following data cleaning and univariate analysis of the dataset—calculation of descriptive statistics, etc.—a multivariate statistical analysis was conducted. The analysis focused on cluster analysis in particular (Hair et al. 2007), as this technique is well suited to the task of organizing observed data into meaningful groupings, and hence developing or testing taxonomies. It is also appropriate for the task of identifying cases that have similar patterns across a number of attributes (Aldenderfer and Blashfield, 1984).
Probably the most fundamental step in the application of cluster analysis is the choice of variables along which to group observations. It has been argued (Ketchen et al. 1993; Ketchen and Shook, 1996) that there are three basic approaches to identifying cluster variables; inductive, deductive and cognitive. Initially, a deductive approach was adopted, in that the aim of the study was to explore Haspeslagh and Jemison’s framework, and this influenced the initial choice of variables and the first clustering solution presented below. However, the analysis then moved on to explore the fit between Haspeslagh and Jemison’s framework and other variables in the dataset that forms the basis for this work—such as number of changes firms make post-acquisition. These inductive and cognitive ideas give rise to additional results presented below.

The decision whether or not to standardize variables is important because in an un-standardized dataset, variables with large ranges can be given more weight in the resulting cluster solution than variables with small ranges (Hair et al. 2007). In this paper, analyses were conducted using and not using standardization (cf. Ketchen and Shook, 1996), and seeking clusters that are consistent and valid across a range of solutions.

Multi-collinearity is a notable difficulty in cluster analysis, where strongly correlated variables may act in concert, and so variables were tested for correlation. Tabachnick and Fidell (2001) suggest that variables showing a correlation of 0.8 and above may create problems. Other authors have separated out variables showing correlations greater than 0.6 (Leask and Parker, 2007). In this instance, some strong correlations were identified and taken into account—see Table 2.

Punj and Stewart (1983) argue that the selection of appropriate clustering algorithms is critical to the effective use of cluster analysis. In this study, both hierarchical and non-hierarchical methods were used alongside each other. Popular agglomerative algorithms—such as complete linkage, average linkage (both between and within groups) and Ward’s method—were used to gain insights into the possible number of clusters present. The k-means algorithm was then applied to allow multiple passes through the data until no observations changed clusters. Resulting cluster solutions were then compared, to check for consistent cluster membership for individual cases.

Following a deductive approach, the cluster analysis began by focusing on the survey questions relating most closely to the Haspeslagh and Jemison framework. The variables concerned were AUTONOMY, KNOWINFO, PHYSASSETS and PERSONNEL. In
order to build profiles of the resulting clusters, a number of other survey questions were analyzed—the most important being the following variables concerning the CEO’s background and management style, and the financial health of the acquired company prior to acquisition:

INSIDER, ASSERTIVE, OTHERVIEWS, ADJUST, CASHFLOW and GEARING. See Table 1, for full summary and descriptive statistics.

**TABLE 1 - VARIABLES SELECTED**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Survey question</th>
<th>Measurement on Likert Scale</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTONOMY</td>
<td>To what extent do you feel that the acquired company is autonomous from the parent?</td>
<td>1 = low autonomy, 5 = high autonomy</td>
<td>3.06</td>
<td>1.31</td>
</tr>
<tr>
<td>PHYSASSETS</td>
<td>To what extent has there been a transfer of physical assets?</td>
<td>1 = low transfer, 5 = high transfer.</td>
<td>1.84</td>
<td>1.38</td>
</tr>
<tr>
<td>KNOWandINFO</td>
<td>To what extent has there been a transfer of knowledge or information?</td>
<td>1 = low transfer, 5 = high transfer.</td>
<td>3.10</td>
<td>1.18</td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>To what extent has there been a transfer of personnel?</td>
<td>1 = low transfer, 5 = high transfer.</td>
<td>2.14</td>
<td>1.26</td>
</tr>
<tr>
<td>INSIDER</td>
<td>Were you (the CEO of the acquired company) in this role before the acquisition?</td>
<td>Yes/No</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>ASSERTIVE</td>
<td>Do you feel that, to get things done, you have to be assertive and override other people’s points of view?</td>
<td>1 = strongly agree, 4 = strongly disagree</td>
<td>2.71</td>
<td>0.80</td>
</tr>
<tr>
<td>OTHER VIEWS</td>
<td>Do you feel that you have to take into account most people’s views in the acquired company for the major changes you make?</td>
<td>1 = strongly agree, 4 = strongly disagree</td>
<td>2.21</td>
<td>1.14</td>
</tr>
<tr>
<td>ADJUST</td>
<td>To what extent do you feel that you need to adjust your decisions to reflect the internal politics of the acquired company?</td>
<td>1 = no adjustment, 4 = considerable adjustment</td>
<td>2.34</td>
<td>1.15</td>
</tr>
<tr>
<td>CASHFLOW</td>
<td>How strong was the acquired company’s cash flow immediately prior to acquisition (relative to the industry sector)?</td>
<td>1 = very strong, 5 = very weak</td>
<td>2.67</td>
<td>1.48</td>
</tr>
<tr>
<td>GEARING</td>
<td>How highly geared was the acquired company immediately prior to acquisition (relative to the industry sector)?</td>
<td>1 = very low gearing, 5 = very high gearing</td>
<td>2.54</td>
<td>1.45</td>
</tr>
</tbody>
</table>
As explained above, the four variables that were strong candidates for an initial deductive approach to cluster analysis—**AUTONOMY**, **KNOWandINFO**, **PHYSASSETS** and **PERSONNEL**—were first tested for multi-collinearity. The results are shown in Table 2.

**TABLE 2 - CORRELATIONS BETWEEN KEY VARIABLES**

<table>
<thead>
<tr>
<th></th>
<th>Transfer of physical assets</th>
<th>Transfer of personnel</th>
<th>Transfer of knowledge and info</th>
<th>Perception of autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer of physical assets</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.385(**), .223</td>
<td>-.349(**), .003</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.063</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>70</td>
<td>69</td>
<td>70</td>
</tr>
<tr>
<td>Transfer of personnel</td>
<td>Pearson Correlation</td>
<td>.385(**), 1</td>
<td>.433(<strong>), -.449(</strong>), .000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>69</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>Transfer of knowledge and info</td>
<td>Pearson Correlation</td>
<td>.223</td>
<td>.433(**), 1</td>
<td>-.060, .621</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.063</td>
<td>.000</td>
<td>.621</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>70</td>
<td>69</td>
<td>70</td>
</tr>
<tr>
<td>Perception of autonomy</td>
<td>Pearson Correlation</td>
<td>-.349(<strong>), -.449(</strong>),</td>
<td>-.060</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.003</td>
<td>.000</td>
<td>.621</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>70</td>
<td>69</td>
<td>70</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

Table 2 shows that strong correlations exist between some of these variables. In particular, **AUTONOMY** is strongly correlated with **PHYSASSETS** and **PERSONNEL**. In addition, **PERSONNEL** is also strongly correlated with **PHYSASSETS** and **KNOWandINFO**.

It was therefore decided that the initial cluster analysis should focus on **AUTONOMY** and **KNOWandINFO**, in order to avoid possible difficulties due to multi-collinearity. Arguments can also be made on a deductive and cognitive basis that the transfer of knowledge and information is the most valuable of the three variables representing the strategic interdependence axis of post-acquisition behavior.
As mentioned earlier, a number of hierarchical clustering algorithms were applied using SPSS, and agglomeration schedules were studied to gain insight into the number of clusters in the data. Hair et al. (2007) suggest that when considering how many clusters to have, the agglomeration coefficient is amenable for use in a stopping rule that evaluates the changes in the coefficient at each stage in the process (as joining two very different clusters results in a large coefficient or a large percentage change in the coefficient). This analysis suggested a five-group solution was worthy of further exploration—see Table 3, for an illustration of the agglomeration schedule for one clustering method.

**TABLE 3 - ANALYSIS OF AGGLOMERATION SCHEDULE FOR HIERARCHICAL CLUSTER ANALYSIS (BETWEEN GROUPS, AVERAGE LINKAGE METHOD)**

<table>
<thead>
<tr>
<th>Number of clusters</th>
<th>Agglomeration coefficient</th>
<th>Change in coefficient to next level</th>
<th>Percentage change in coefficient to next level</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>1.619</td>
<td>0.249</td>
<td>15.38%</td>
</tr>
<tr>
<td>5</td>
<td>1.868</td>
<td>0.885</td>
<td>45.77%</td>
</tr>
<tr>
<td>4</td>
<td>2.723</td>
<td>1.582</td>
<td>58.1%</td>
</tr>
<tr>
<td>3</td>
<td>4.305</td>
<td>1.809</td>
<td>42.02%</td>
</tr>
<tr>
<td>2</td>
<td>6.114</td>
<td>.606</td>
<td>9.91%</td>
</tr>
<tr>
<td>1</td>
<td>6.72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A non-hierarchical clustering algorithm, k-means, was then applied to allow multiple passes through the data until no cases changed cluster membership. An important step in validation of the cluster solution is the application of multiple cluster methods, and the comparison of their solutions (Hair et al. 2007). A high degree of consistency was found between the hierarchical and non-hierarchical methods, in terms of the cluster membership of individual cases, suggesting that a five-group solution might be the most robust, and should be studied further.

Findings from Analysis of Survey Data

Table 4 summarizes the mean value profiles (the final cluster centers based on a Likert scale of 1 to 5) of the cases assigned to each of the five clusters.
TABLE 4

FINAL CLUSTER CENTRES FOR THE FIVE-CLUSTER SOLUTION

<table>
<thead>
<tr>
<th></th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Cluster 4</th>
<th>Cluster 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTONOMY</td>
<td>1.2</td>
<td>4.2</td>
<td>4.2</td>
<td>3.3</td>
<td>1.29</td>
</tr>
<tr>
<td>Mean score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KNOWandINFO</td>
<td>4.3</td>
<td>1.4</td>
<td>4.1</td>
<td>3.2</td>
<td>1.43</td>
</tr>
<tr>
<td>Mean score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYSASSETS</td>
<td>3.2</td>
<td>1.0</td>
<td>1.6</td>
<td>1.7</td>
<td>2</td>
</tr>
<tr>
<td>Mean score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>3.9</td>
<td>1.0</td>
<td>2.0</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Mean score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of cases</td>
<td>11</td>
<td>10</td>
<td>14</td>
<td>28</td>
<td>7</td>
</tr>
</tbody>
</table>

The positions of five clusters on the two key variables are shown in Figure 2.

FIGURE 2 - FIVE CLUSTER SOLUTION

In order to validate the clusters and to begin cluster profiling, F-tests were performed to explore differences in the cluster means, and significant results were obtained—see Table 5.

TABLE 5 - ANOVA (F TESTS ON FIVE-CLUSTER SOLUTION)

<table>
<thead>
<tr>
<th></th>
<th>Cluster</th>
<th>Error</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Square</td>
<td>df</td>
<td>Mean Square</td>
<td>df</td>
</tr>
</tbody>
</table>

23
An additional step in cluster validation is the assessment of the clusters on additional variables (not included in the cluster solution) that may be indicative of the potential for differentiated strategies between the clusters (Hair et al. 2007). In order to carry out this validation and to provide more rounded profiles of the clusters emerging from the analysis, a range of other variables on the survey were therefore analyzed for each cluster. Table 6 shows the average number of changes in each cluster for each of the seven categories of change explored on the questionnaire.

### TABLE 6 - PROFILING INFORMATION, BY CLUSTER

<table>
<thead>
<tr>
<th></th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Cluster 4</th>
<th>Cluster 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance changes (mean no.)</td>
<td>6.7</td>
<td>3.5</td>
<td>5.0</td>
<td>4.5</td>
<td>5.7</td>
</tr>
<tr>
<td>Marketing changes (mean no.)</td>
<td>5.2</td>
<td>1.5</td>
<td>4.6</td>
<td>4.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Communications changes (mean no.)</td>
<td>1.9</td>
<td>0.3</td>
<td>1.4</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>HR changes (mean no.)</td>
<td>7.6</td>
<td>3.8</td>
<td>5.6</td>
<td>7.6</td>
<td>8.0</td>
</tr>
<tr>
<td>Operations changes (mean no.)</td>
<td>5.4</td>
<td>1.9</td>
<td>4.7</td>
<td>4.1</td>
<td>6.3</td>
</tr>
<tr>
<td>IT changes (mean no.)</td>
<td>3.6</td>
<td>1.1</td>
<td>1.7</td>
<td>1.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Other changes (mean no.)</td>
<td>1.1</td>
<td>0.9</td>
<td>1.1</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Cash flow 1=v.strong 5=v.weak</td>
<td>3.3</td>
<td>2.4</td>
<td>2.3</td>
<td>2.5</td>
<td>3.6</td>
</tr>
<tr>
<td>Gearing 1=v.low 5=v.high</td>
<td>3.3</td>
<td>2.3</td>
<td>2.3</td>
<td>2.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Insider CEO</td>
<td>2</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Outsider CEO</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Management style assertive?</td>
<td>2.6</td>
<td>3.0</td>
<td>2.6</td>
<td>2.8</td>
<td>2.6</td>
</tr>
<tr>
<td>1=strongly agree, 4 = strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management style accommodating others views? 1=strongly agree, 4 = strongly disagree</td>
<td>2.3</td>
<td>2.8</td>
<td>1.9</td>
<td>2.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Management style adjusting decisions to politics? 1 = no adjustment, 4 = considerable adjustment</td>
<td>2.1</td>
<td>2.9</td>
<td>2.3</td>
<td>2.3</td>
<td>2.1</td>
</tr>
</tbody>
</table>
Table 6 also summarizes other revealing questions from the questionnaire that provide further information on the respondents and their organizations, including the financial health of the firm prior to acquisition; the background of the CEO ("insider", a CEO drawn from the acquired firm, or, "outsider", a CEO drawn from outside the acquired firm post-acquisition) and his/her management style.

A richer picture of each cluster begins to emerge from the above analysis. Low autonomy and high levels of transfer of knowledge and information characterize Cluster 1. It is the only cluster that has significant levels of transfer of physical assets, or transfer of personnel. These organizations are likely to have an outsider CEO. Prior to acquisition, the financial health of organizations in Cluster 1 was relatively poor (high gearing and weak cash flow). Cluster 1 organizations make the largest number of changes in most areas—while Cluster 2 organizations make the fewest changes. Cluster 2 is represented by high autonomy and low transfer of knowledge and information. It is also characterized by very low scores on both transfer of physical assets and transfer of personnel. These firms are likely to have an insider CEO. The data suggests that the management style of these CEOs may differ from the other clusters as they may be less likely to adopt an assertive style or override others’ views, and more likely to adjust their decisions to reflect internal factors in the acquired company. Cluster 2 organizations had relatively good financial health prior to acquisition (low gearing and strong cash flow). This is also true of Clusters 3 and 4. Cluster 3 is high on both autonomy and transfer of knowledge and information. This cluster appears to have a mixture of insider and outsider CEOs. Cluster 4 is medium to high on both autonomy and transfer of knowledge and information, slightly below Cluster 3 on both variables. These organizations are quite likely to have an outsider CEO. Cluster 5 is low on both autonomy and transfer of knowledge and information. Like Cluster 1, these organizations are characterized by relatively poor financial health prior to acquisition. Also like Cluster 1 (the other low autonomy cluster), Cluster 5 organizations tend to make the largest number of changes in the areas of finance and operations. Unlike Cluster 1, Cluster 5 organizations are quite likely to have an insider CEO.

Differences between clusters on the variables discussed above were tested for significance. A chi-square test on the background of the CEO (either insider or outsider), and the groupings suggested above (Clusters 1 and 4 appear more likely to have an outsider CEO; Clusters 2 and 5 appear more likely to have an insider CEO; Cluster 3 relatively more balanced
in this respect) gave a significant result (chi-square test statistic = 8.233; 2 degrees of freedom; p = 0.016).

Turning to the questions concerning financial health, a chi-square test on the acquired firm’s cash flow immediately prior to acquisition (either low, average or high), and the groupings suggested above (Clusters 1 and 5 appear more likely to have weaker cash flow, while Clusters 2, 3 and 4 appear more likely to have stronger cash flow) gave a significant result (chi-square test statistic = 6.864; 2 degrees of freedom; p = 0.032). Similarly, a chi-square test on the acquired firm’s gearing immediately prior to acquisition (either low, average or high), and the groupings suggested above (Clusters 1 and 5 appear more likely to have a higher gearing, while Clusters 2, 3 and 4 appear more likely to have a lower gearing) gave a significant result (chi-square test statistic = 7.996; 2 degrees of freedom; p = 0.018).

Data gathered from expert informants on their views of the range of change activities and their impact on firms post-acquisition, revealed Cluster 1 as a high change cluster, with a broad range of changes with largely high impact and high difficulty in implementation. Cluster 2 represents the opposite position, with low levels of change across all categories, with varied impact and difficulty.

Turning to Clusters 3 and 4, it appears that an important difference between the clusters may be the nature of the changes that they are undertaking; Cluster 3 may be more inclined to make changes in the areas of operations and IT, while Cluster 4 may be focusing on changes in the areas of HR, communications and marketing. It has already been noted that Cluster 5 firms had relatively poor financial health prior to acquisition, and were making relatively high levels of change in the areas of finance and operations. It is also interesting to note that these firms appear to be making a number of the changes that were judged to be of the highest impact—such as selling or closing businesses, removing senior executives, improving financial control systems and adopting different financial reporting systems.

In the original questionnaire, survey respondents were asked to indicate the importance of some of the actions taken since acquisition (responses on a Likert scale of 1 to 5, with 1 being low and 5 being high); particular questions concerned the establishment, or re-establishment, of the firm’s credibility with a range of key stakeholders. For instance, descriptive statistics revealed that Cluster 2 appear to be the least likely to rate “communicating your credibility with the press” to be significant, while Cluster 4 were the most likely to regard this activity as highly
significant. A chi-square test indicated that there were significant differences between the five clusters on this question (test statistic = 27.734; 16 degrees of freedom; p = 0.034). This suggests that one difference between Clusters 3 and 4 could be their attitude to externally oriented change activity such as communications and marketing, with Cluster 4 regarding this as more important, while Cluster 3 firms are maintaining a focus on more internal change, such as IT and operations.

In summary, the first three clusters that emerged from the analysis of survey data appear to fit with Haspeslagh and Jemison’s main post-acquisition integration strategies (Absorption, Preservation and Symbiotic). However, two further post-acquisition integration strategies were also derived from the analysis of survey data, as represented by Clusters 4 and 5. 

Discussion

Testing the key axes of the leading post-acquisition strategy typology for orthogonality shows some variables (the transfer of assets and transfer of personnel) correlate with autonomy. This may explain the reservations expressed by Capron et al. (1998) and Puranam and Srikanth (2007) about whether strategic interdependence and autonomy are orthogonal. However our data reveals knowledge interdependence is not correlated with level of organizational autonomy. This is an interesting finding as it suggests the process of knowledge transfer is independent of organizational fit for post-acquisition integration strategies. It also gives confidence in a two-dimensional integration framework.

The five integration strategies derived from several cluster techniques, and using the orthogonal dimensions of knowledge transfer and level of autonomy, confirm the existence of Haspeslagh and Jemison’s three main integration strategies; Absorption, Preservation and Symbiotic. Our analysis also confirms the existence of a fourth integration strategy only conjectured previously as a Holding integration style (Haspeslagh and Jemison, 1991). Our qualitative data enables this post-acquisition integration style to be characterized.

In this integration strategy the acquirer is highly directive in terms of how the newly acquired company should be restructured. This is contrary to the passive, non-directive characterization proposed by Haspeslagh and Jemison’s Holding style. These acquisitions require very significant and immediate application of highly directive instructions, in order that the acquired company is rapidly restored to full health. Through skillful turnaround type actions, a poorly performing target may be instructed in clear terms on how to rejuvenate its business by
a well-informed acquirer. The main themes emerging for top managers in these acquisitions are as follows:

(i) Speed of action is vital to reverse the poor financial health of these acquisitions. Critical are "stopping capital expenditure, stopping financial misuse, putting immediate controls on the finances, and putting in place the parent-required financial systems" (Acquirer: Engineering). Speed of action and clarity are key: "Have a clear idea and do it. People want clarity" (Acquired: Industrial Services).

(ii) Tight controls are imposed, focusing on overhead and production costs as areas for quick improvements. "The rationale for the changes was that the company was making losses because the overheads and the management overheads were too big" (Acquirer: Industrial Land). The imposed controls are absolutely rigorous, aiming at short-term improvements. "I wouldn’t let any of the controls slip. I wouldn’t tolerate any departure" (Acquirer: Industrial Services). "Everything has to be performance monitored. Everything and everybody is very, very accountable. We didn’t have that before" (Acquired: Engineering). "They implemented an unprecedented set of financial and accounting systems—it was a big shock" (Acquired: Industrial Land). Many acquired company senior executives complain about the stringency and unyielding nature of parental controls. "We were not free to make decisions in the best interests of our business. The parent company imposed rigid expenditure controls" (Acquired: Electronics Manufacturing).

(iii) To achieve financial turnaround, acquired companies experience high levels of change, including a focus upon meeting budget, changes to senior management, restructuring divisions, rationalization of assets and cuts to expenditure in marketing and R&D. "There were a lot of managers—it was very top heavy, so we removed a lot of them" (Acquirer: Industrial Services). "It was incredibly badly managed—sort of bleeding to death—so I cut staff immediately" (Acquirer: Property Services). "We closed down the head office, which was very expensive and opulent—a major task" (Acquirer: Industrial Services). "There were too many divisions and not enough activity, so we had a fairly quick restructuring" (Acquirer: Industrial Services). The severity of imposed changes is indicated by "cut back, cut back, cut back—reduce losses!" (Acquired: Electronics Manufacturing.)

(iv) Top managers of acquired companies find their strategic horizons collapsing from medium to short-term under the pressure to produce quick results. "I found the reductions in
development and marketing spend hardest because it was hitting the future of the company. I was putting a great line through my own strategy. The instruction from the parent company was 'get back to budget'” (Acquired: Electronics Manufacturing). "I said the cost of sacking these people in money terms is X, but more importantly in terms of achieving our strategy it’s XYZ, and means putting back our strategy quite severely. What he said is, ‘I want profit!” (Acquired: Engineering).

Contrary to the characterization of these acquisition integration strategies as just a holding action by parent companies waiting to on-sell the business, the data presented here shows active intervention of a turnaround nature, with strict financial controls imposed on the target company from the parent and very directive strategy setting from the centre. Rapidity of action is key in order to rejuvenate the target, and for this reason a better descriptor for this type of acquisition integration is "Intensive Care". This style of acquisition might be associated with Private Equity as a parent. Unlike Haspeslagh and Jemison’s suggestion that these businesses are subsequently sold off, the data shows that the businesses may also be retained and possibly integrated further when in a healthy condition.

Our cluster analysis also reveals a further major post-acquisition type, not anticipated or acknowledged in Haspeslagh and Jemison’s framework, or later strategy frameworks such as Zaheer et al. (2013). The main themes emerging from our interviews of top managers in these acquisitions are that new parents:

(i) Perceive acquired companies as being in good financial health and well-run. However, post-acquisition changes were made immediately to harmonize the finance and accounting systems, "as they had to come into line with the group" (Acquirer: Media)—"it’s a good way to monitor the acquisition" (Acquirer: Manufacturing). The acquired companies generally accepted this, "We had to re-jig our accounts to conform to their reporting system, but it wasn’t a problem" (Acquired: Manufacturing). But, there were no aggressive changes in the way in which financial targets were set in the acquired company. "In practice, we had a lot of discretion about our capital investment decisions" (Acquired: Services).

(ii) Perceive acquired employees as enthusiastic about remaining. Unlike other acquisition strategies such as Holding or Absorption integrations, these acquisitions do not experience the departure of many employees in the acquired organisation. Acquired CEOs often change, unlike Preservation or Symbiotic acquisitions, but this may mean promotion onto the
main board of the acquirer rather than leaving the group altogether. "I was brought in to integrate the business as I knew what the parent wanted and the CEO (of the acquired company) went onto the main board" (Acquirer: Media). "The senior management were effectively running the company and running it well—we wanted to keep them" (Acquirer: Engineering). Indeed there is both a willingness to retain the workforce and a desire from acquired personnel to stay. "They wanted to be with us, they were enthusiastic" (Acquirer: Manufacturing). When asked whether the senior management of the acquired company were intending to leave, the CEO of a large acquiring electronics company replied, "No, they wanted to stick with the company. They were very loyal to the company and were keen to continue building it." Indeed, the tone and spirit of the acquisition was friendly. "We never had a cross word. We never had a problem. It was harmony and mutual respect and it worked exceptionally well" (Acquired: Manufacturing).

(iii) Quickly articulate a new vision, change the acquired company name and often use a new CEO, which is different from Preservation and Symbiotic integrations. This change was experienced by acquired companies as being quite assertive and action-oriented in nature, particularly involving more active marketing and getting closer to customers, as well as introducing better communication to analysts and shareholders. This did not mean that a vision was imposed unilaterally. There is evidence of mutual accommodation of views as acquirer and acquired management worked together. In several cases, the management had been well-known to each other sometime before the deal took place.

(iv) Rapidly improve marketing and stimulate sales. "They were a profitable business with a good brand which we could take to market much more effectively than they could" (Acquirer: Manufacturing). "The critical thing is to get out to the customers and reassure them—contracts will be delivered on time—we’re a stronger, better group now, and we will be more competitive" (Acquirer: Manufacturing). In some instances, "marketing specialists were appointed from the acquirer" (Acquired: Financial Services). A few interviews provided evidence of combining sourcing and supply agreements, but this was not widespread.

(v) Merge administrative areas but often leave business units standing alone. "The main changes were merging central functions such as finance, accounting" (Acquirer: Media). "The reporting lines have changed so the finance director (in the acquired company), now reports to the group FD rather than just his CEO and has to prepare forecasts and management accounts like this" (Acquirer: Media). However many other parts of the business were left largely
independent. "We had to adopt the parent’s new procedures for regulatory reasons, but they
didn’t interfere in our operations" (Acquired: Financial Services). "The acquired company has a
lot of autonomy. It just has to follow certain systems in order to get that autonomy" (Acquirer:
Media). "In this industry, physical assets cannot be transferred or moved, so they have to remain
distinct" (Acquired: Heavy Industry). "Their policy was to run everything as independent units—
the only integration we had was in administration and marketing" (Acquired: Manufacturing).
"We could do our own thing, but the parent did a bit with sales" (Acquired: Financial Services).

(vi) Avoid changing the distinctive resources of the acquired company. "We the parent
can get contracts and tenders for you, but then it's down to you guys to deliver. You have the
skills and the knowledge—we are not going to get rid of that—we want to build it" (Acquirer:
Manufacturing). This generally meant making very few changes to internal operations of the
acquired company. "We wanted to use the best resource in each company to keep them semi-
independent, rather than use the best resource in each company to pull them together" (Acquirer:
Food Manufacturer). "We didn’t want to lose the distinctiveness—we had competencies in each
firm that are not the same" (Acquirer: Industrial Goods). In some cases, there was an original
intention to merge production, but after investigation this was decided against. "Some areas
come back which we expected to merge, but the recommendation was that the ways of operating
in the two production areas were quite different and should be left alone—so we left them"
(Acquirer: Media).

This post-acquisition integration strategy, which we term "Reorientation", is less
aggressive than Intensive Care or Absorption as it is more limited in scope. Intensive Care and
Absorption strategies are highly directive integrations with widespread, far-reaching, change
imposed on the acquired company, whilst in Reorientation integration, significant and distinctive
areas of the organization are deliberately left independent and there is collaboration concerning
the elements of the organization that might be changed. However, Reorientation integration is
much more hands-on and directive than Preservation or Symbiotic styles, where the acquirer is
concerned about protecting the acquired business against change. In Reorientation integration,
there is deliberate and rapid harmonization of administrative functions as well as quick
integration of marketing and sales functions. The distinctiveness of the Reorientation integration
is that acquisitions are in good financial condition, well-managed and have employees the
acquirer would prefer to keep. Relations are friendly, and the acquirer’s intention is not to
restructure the acquired company’s sources of distinctiveness. There is harmonization of coordinating administrative systems and functions such as finance, HR and communications. Marketing and sales see rapid and major realignment to fit with the new parent, but adjustments to operations and development are rare and limited. Aiming for coherence in superstructure with significant change to the customer interface and substantial efforts at external communications, means these acquisitions are being reoriented externally whilst protecting key internal sources of distinctiveness. In this way, the acquired company may find its external orientation and image being adjusted.

The Reorientation post-acquisition strategy can be seen as fundamentally different to other styles. It does not result in the acquired firm being broken up as in Absorption acquisitions; it does not involve the widespread draconian change of Intensive Care acquisitions; it does not allow the acquired firm to remain independent, making minor cosmetic changes as in Preservation acquisitions; it does not engage in deep internal changes in most functional areas in an egalitarian way, characteristic of Symbiotic acquisitions; and indeed it does not result in complete transformation of the business as has been suggested as a sub-category of Symbiotic acquisitions (Ellis et al. 2004). Reorientation acquisitions are a specific type of acquisition integration approach. It is about acquiring good, financially healthy companies where the essence of the acquired business is sound, but where alignment to the new parent and a coherent outward face to financial and commercial markets are necessary. In essence, these acquisitions experience a stratified integration of coordinating administrative structures and outward facing functions, such as marketing and sales, and occasionally sourcing, in order to achieve exploitation gains. At the same time, business units such as operations, production and development functions remain independent, which may allow exploration gains over time. In this way, Reorientation acquisitions show that exploitation and exploration—or to use Haspeslagh and Jemison terminology, value capture and value creation—can co-exist during acquisition integration.

In summary, our cluster analysis supports a recasting of the dominant post-acquisition integration strategy typology to more fully recognize the flavor of frameworks from other perspectives—which includes pre-acquisition financial health and also post-acquisition top management retention or dismissal—and to reflect the new integration strategies identified in this paper. We also propose a re-labeling of the Holding integration strategy as Intensive Care, to
more closely reflect the active nature of the integration activity and changes which the acquired company undergoes. This new post-acquisition integration typology is shown in Figure 3.

**FIGURE 3 - FIVE POST-ACQUISITION INTEGRATION STYLES**

The implications from this new post-acquisition typology for managers are twofold. Firstly, managers are engaged in more post-acquisition strategies than previously recognized. The post-acquisition typology currently dominant in the literature only supports three approaches to post-acquisition integration, and this significantly limits "legitimate" choice. The new typology shows acquiring managers are deploying two other integration strategies distinct from existing ones—and these are not merely confused attempts at conforming to previous legitimate post-acquisition strategies. Our field interviews from the qualitative part of our research reveal that the two new post-acquisition strategies, "Intensive Care" and "Reorientation", require different managerial approaches to integrating acquisitions than previously recognized.

In terms of the new post-acquisition integration strategy discovered in this paper, the "Reorientation" approach may now be seen to be a legitimate set of integration actions, whereas in the past these actions may have seemed rather poor attempts by executives to follow other strategies.
strategies. The existence of Reorientation acquisitions now legitimates for managers a style that does not involve the extremes of restructuring or laissez-faire, and permits a more modest, more easily controlled and less risky type of integration. It also provides an acquisition integration style that enables both exploitation and exploration to co-exist.

The nature of Reorientation, with administrative and marketing integration whilst allowing significant autonomy for the rest of the acquired business, may allow more rapid gains to investors than post-acquisition strategies requiring full organizational integration, such as Symbiotic or Absorption acquisitions (Angwin, 2004b). The potential risk of Reorientation is that early gains may result in enthusiasm for subsequent, more complete integration of the whole acquired business. This would present a far more difficult and long-term challenge, as it is difficult for firms to internally combine complementary elements (Whittington and Pettigrew, 2003).

Conclusion
Following repeated calls from M&A researchers to place post-acquisition frameworks upon firmer empirical foundations, this paper has analyzed data for all M&A types in order to gain a comprehensive view of post-acquisition integration strategies. The result, and contribution to the M&A literature, is a more robust post-acquisition strategy typology than is currently available.

Five distinct post-acquisition integration strategies have been identified using several cluster techniques. Three of these integration strategies confirm existing styles identified in the leading post-acquisition integration strategy typology, and two further strategies have been identified. They have been characterized in this paper as "Intensive Care" and "Reorientation" strategies. The existence of these additional strategies is sufficient to warrant a new post-acquisition integration strategy typology that recognizes all five possible courses of action.

This paper has also responded to calls for methodological pluralism in M&A research, as well as more fine-grained research to complement quantitative methods. By using a novel mixed-method design, this paper has been able to identify two under-researched types of post-acquisition strategy and explore key themes important to top managers. This has allowed a more nuanced perspective on integration; in terms of Reorientation, it has shed light on how selective integration can allow the co-existence of exploitation and exploration synergies.
This new typology offers practicing managers and academics new insights into post-acquisition integration strategies. For practicing managers, there is now greater legitimate choice in post-acquisition integration strategies than available before. It also legitimates some integration approaches that previously may have appeared misguided. For academics, it builds confidence in the robustness of a typology around which further empirical studies can be conducted and hypotheses developed.

Future research may examine the performance of these five integration strategies, in order to determine which result in more positive outcomes. Prior research has suggested that mixing post-acquisition integration strategies for one acquisition can be hazardous, and this could now be re-examined in the light of more integration combination possibilities. There could also be investigation into mobility barriers between different integration styles, as existing research assumes acquirers have free reign in their choice of integration strategy. This paper however has observed that the extent of desired integration may not be possible because of regulatory, technological, cultural and geographical barriers. Further studies might look more closely at the nature of the acquirers themselves—e.g., in an "Intensive Care" acquisition the acquirer may be a Private Equity firm, which has characteristics quite different from a manufacturing company, with different approaches to integration actions, performance outcomes and timelines. Acquirers may also have different views on whether an acquisition is a one-off, or part of a sequence of activity conducted by serial acquirers (Chatterjee, 2009; Laamanen and Keil, 2008). Further research might investigate whether successful serial acquirers opt for one integration strategy alone—or, are they so skillful that they can change integration strategies depending on the acquisition? Are there benefits to focusing upon one type of repeated post-acquisition integration routine (Angwin and Urs, 2014) that may involve either exploration or exploitation benefits, or are there advantages in being flexible enough to manage repeated integrations where exploitation and exploration synergies are intertwined and variously balanced?
References


Angwin, D. N., 2004b. Speed in M&A integration: the first 100 days, European Management Journal, 22 (4) 418-430


integration is (un)necessary. Organization Science 20, 313-328.


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