THE UNIVERSITY OF HULL

A Complexity Perspective on Mergers, Acquisitions, and International
Joint Ventures

being a Thesis submitted for the Degree of Doctor of Philosophy in the
University of Hull

by

Richa Joshi

MBA (University of Hull, United Kingdom)

BE.IT (University of Mumbai, India)

September 2015

Abstract

This research represents the application of complexity theories to the study of strategic alliances in an emerging market context. The people, culture and communication issues of strategic alliances such as mergers and acquisitions (M&A), and international joint ventures (IJV) are a topic of concern for academics and practitioners. Much published research acknowledges the high failure rate of M&A and IJV and admits challenges in managing these changes. M&A and IJV are inherently complex changes but often managed using linear simplistic approaches. Therefore, it seems logical to view these complex changes using complexity approach. But little has been done to link M&A and IJV management with complexity theories. This research draws on work in complexity theories to better understand the emergence of M&A and IJV in their post-integration phase. Taking a case study approach, conditions of emergence posited by a dissipative structures model of complex systems – disequilibrium conditions, amplifying actions, recombination dynamics and stabilizing feedback; along with the legitimate and shadow system view of organizations – are used to explain M&A and IJV activity in an Indian pharmaceutical engineering firm. The findings suggest a match between the theories employed and what the empirical research discovered, empirically validating the theories to study M&A and IJV phenomena. The findings complement the theoretical perspectives on people, culture and communication issues of M&A and IJV and demonstrate that the complexity lens provides a comprehensive understanding of these changes.

Acknowledgements

I would like to express my deep sense of gratitude and profound thanks to Dr. Amanda Gregory, without her academic wisdom, enthusiasm, encouragement, inspirational guidance and support this thesis would have been impossible. I have been extremely lucky to have a supervisor who cared so much about my work, and who supported me till the last step of my research journey.

I would like to thank Dr. Jennifer Wilby for providing valuable feedback in the preparation of this thesis. I would also like to thank the teaching, administrative and library staff at The University of Hull for all their assistance and support.

A great debt is owed to the research organization and participants for their open and willing contribution towards this research, without which this thesis would have been impossible.

I would like to thank my mother – Mrs. Vimala Joshi for her prayers, blessings, patience and endless support. Completing this work would have been all the more difficult were it not for the support and friendship provided by my siblings – Ruchi and Shrawan, and my best friends – Rahul, Dilem, and Risalat. I am also grateful to my first teacher – Mr. Amul, for encouraging me to pursue Ph.D. and for believing in my abilities.

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List of Abbreviations

Glossary	
Abbreviations	**Description**
ABC	Pseudonym for Case Study Organization
ABS	Association of Business Schools
BBC	British Broadcasting Company
CAS	Complex Adaptive Systems
CDE	Containers, Differences and Exchanges
CEO	Chief Executive Officer
CES	Complex Evolving Systems
COO	Chief Operating Officer
CVI	Continuous Varying Interactions
EMP	Employees
FDI	Foreign Direct Investment
GM	General Manager
HR	Human Resource
HRM	Human Resource Management
IAS	Integration Acculturation Strategy
ICAS	Intelligent Complex Adaptive Systems
ICMR	IBS Centre for Management Research
IJV	International Joint ventures
IJVEMP	International Joint venture Employees
IJVGM	International Joint venture General Manager
IPQC	In-Process Quality Control
LMX	Leader Member Exchange
LS	Legitimate System
M&A	Mergers and Acquisitions
M&AEMP	Mergers and Acquisitions Employees
M&AGM	Mergers and Acquisitions General Manager
M&AMGR	Mergers and Acquisitions Manager
NSN	Nokia Siemens Networks
OECD	Organization for Economic Cooperation and Development
PD	Pattern Development
PF	People Factors
PF	Provident Fund
RO	Research Objective
RQ	Research Question
SO	Self-organization
SS	Shadow System
UNCTAD	United Nations Conference on Trade and Development

1. Introduction

1.1. Problem Identification

This thesis is about a complexity perspective on mergers and acquisitions (M&A), and international joint ventures (IJV). Joint venture and M&A activity is expected to increase in the coming years due to growing interest in corporate partnerships (McKinsey & Company, 2014). In the recent survey conducted by McKinsey & Company (2014), 68% of respondents expected their companies' joint-venture activity to increase over the next five years and 59% expected an eventual increase in M&A activity. "In 2004, 30,000 acquisitions were completed globally, equivalent to one transaction in every 18 minutes. The total value of these acquisitions was 1,900 billion dollars; exceeding the GDP of several large countries" (Cartwright and Schoenberg, 2006, pg.1). Moreover, IJVs are increasingly popular in emerging economies and have solely contributed toward up to 60% of foreign direct investment in the last decade (Damanpour *et al.*, 2012).

On the other hand, it is also estimated that only about one third of M&A are successful (Huiyuan and Xin, 2008) and IJV fare no better, with only 40% to 60% of IJVs being successful (Marxt and Link, 2002). Hence, in spite of their popularity, research suggests that failure is more likely than success (Huiyuan and Xin, 2008; Schuler and Jackson, 2001; Habeck *et al.*, 2000; Sparks, 1999; Todeva and Knoke, 2005). After more than five decades of research, Burnes and Jackson (2011) and Balogun and Hope Hailey (2004) highlight that at a broader level the failure rate of all change initiatives is about 70 per cent. A few well-known examples of M&A failure include the failure of Daimler-Benz's acquisition of Chrysler in 2006 due to cultural clashes (ICMRIndia, 2013) and HP's acquisition of Autonomy, referred to as a disaster, which resulted in the eventual write-off of the acquired firm in 2012 (BBC, 2014a). Many international joint ventures result in takeover by one of the parent organizations in the partnership. Some examples of IJV failure are that of Nokia Siemens Networks (NSN), which resulted in Nokia buying Siemen's 50% stake in their joint venture due to profit struggles in 2013 (BBC, 2014b); and examples in the context of India are the IJV between Yamaha and Escorts resulting in complete ownership by Yamaha Motors by

acquiring 26% of Escorts shareholding in 2001 due to difference in equity pattern, and the split between Hero and Honda in 2010 due to unresolved differences and independent plans (ICMRIndia, 2013). This paradox of global increase in demand for M&A and IJV versus high failure rate of M&A and IJV has given rise to the following research agenda to study this problem theoretically (see Chapters 2-3) and practically (see Chapters 4-6) followed finally by a period of reflection (see Chapters 7-8).

1.2. Research Questions and Structure of the Thesis

The overall purpose of this research project is to use complexity insights to understand M&A and IJV (research question one – RQ1). However, this purpose is only approached after the thorough investigation of the research problem in the literature through research objective one (RO1) (see Chapter 2). The research systematically raises the following research questions and objectives (see Chapter 3 section 3.5.) to investigate the research phenomenon:

Research questions (RQ) and Research objectives (RO)	Thesis Chapter
RO1 - To conduct in-depth review of M&A and IJV literature to explore challenges in M&A and IJV management and to identify gaps in the literature.	Chapter 2 - Merger, Acquisitions and International Joint Ventures
RQ1- What insights can be gained from employing a complexity lens to understand M&A and IJV? (primary research question) RO2 - To use complexity theories in order to understand patterns of major transformations such as M&A and IJV. RO3 - To use complexity theories in order to understand the emergent outcomes of major transformations such as M&A and IJV.	Chapter 3 – Complexity Theories
RQ2 - What philosophical underpinnings need to be taken care of in applying complexity theories to management research? (secondary research question) RO4 - To develop a complexity research methodology based on the philosophical underpinnings of this research project. RO5 - To collect and analyse the data in accordance with the philosophical underpinnings of this research project.	Chapter 3 – Complexity Theories Section 3.6 Complexity Philosophy Chapter 4 – Research Methodology Chapter 5 – Case Study Chapter 6 – Research Findings
RO6 - To conduct a theoretically grounded discussion of the research findings with reference to M&A, IJV and complexity theories literature.	Chapter 7 – Research Discussion
RO7 - To illustrate theoretical contributions, methodological contributions, managerial implications, reflection on the research process, limitations of the study and future research directions.	Chapter 8 – Conclusion: Contributions, Reflections, Limitations and Future Work

Table 1.1 - Research Questions and Objectives

To answer the research questions stated in Table 1.1, the thesis comprises a series of chapters to approach the research questions systematically.

Firstly, M&A and IJV literatures are critically reviewed in Chapter 2 to explore the reasons for high M&A and IJV failure rate and the associated people, culture and communication challenges of M&A and IJV. This chapter also explains the research boundary for the research project. The overall review highlighted that M&A and IJV as forms of organizational change are complex, ambiguous and confusing to manage. The chapter highlights a research gap in that it is stated in the literature that along with financial, strategic and legal challenges, M&A and IJV failures are also due to people, culture and communication issues (Cornett-DeVito and Friedman, 1995; Bhal *et al.*, 2009; Bastein, 1987; Schuler *et al.*, 2004; Schuler, 2001; Cyr, 1997; Iles and Yolles, 2002) but the latter is a neglected area of focus in practice. This chapter ends with the proposal of an alternative lens that can embrace the inherent complexity of M&A and IJV, in order to understand these changes better.

Chapter 3 is central to this research and identifies the primary research question and objectives for this project. The chapter entails an assessment of the relevance of complexity theories to understand M&A and IJV, as an alternative perspective. The chapter provides various complexity theories and principles before moving into a sophisticated discussion of the application of complexity theories to organizations. The focus is then narrowed to a discussion of complexity theories in the context of organization change. A critical discussion is provided on competing paradigms in complexity research and the debates around application of complexity sciences to social sciences. The chapter ends with the introduction of the philosophical stance – critical pluralism - adopted in this research project, which provides the basis for the discussion of research methodology in the next chapter.

Chapter 4 is of prime importance and is based on the philosophical discussion in Chapter 3. This chapter lies at the heart of this research project, making the transition from the theoretical realm to the practical domain. Highlighting the importance of context and boundaries in complexity research approach, the chapter carefully explicates the linkage of the pluralist philosophy with the chosen research strategy.

Chapter 5 takes the research into the practical domain as it provides details on the case study organization and the unit of analysis. It elaborates the details of data collection and analysis in the context of this complexity research project. The chapter ends with information on research quality criteria and ethics.

Chapters 6 and 7 establish the connection between the case study results and M&A, IJV and complexity management literature. Chapter 6 documents the outcome of data analysis for this research project using the constructs of complexity theory. However, Chapter 7 provides a theoretically grounded discussion of the research findings. It provides substantial evidence to answer the primary research question RQ1.

Chapter 8 demonstrates the achievement of the research in addressing the research questions and highlights the theoretical and methodological contributions of this research project. It further highlights the managerial implications of this research. The chapter also contains critical reflections on the role of the complexity researcher and on the complexity research process. It ends with the limitations of the study, which give way to the future research directions.

1.3. Conclusion

This chapter introduced the research problem under investigation, set out the research questions and outlined the structure of the thesis. It stated the paradox of global increase in M&A and IJV activity, in spite of such endeavours experiencing a high failure rate. However, in a highly interconnected global world where businesses are constantly looking for expansion, growth and new markets, it is vital for researchers and practitioners to find ways to learn lessons from the extant theory and practice to find new methods and perspectives to curb M&A and IJV change failures and to find better ways to manage and understand such critical changes (Clayton, 2010). This endeavour provides the essential purpose and timeliness of this research project. The introduction has set the basis for the research problem and the following chapters report in detail the steps by which it was investigated.

2. Mergers, Acquisitions and International Joint Ventures

2.1. Introduction to the Review of the Literature

After the introduction of the research problem under investigation in chapter 1, the objective of this chapter is to conduct an in-depth review of M&A and IJV literature to explore challenges in M&A and IJV management and to identify gaps in the literature (RO1). The chapter adopts a semi structured literature review approach explained in the next section (see section. 2.2) to study the phenomena of Mergers and Acquisitions (M&A) and International Joint Venture (IJV). A discussion on the literature review method used is also provided, followed by the in-depth review of the M&A and IJV literature. The chapter begins with a broad critical discussion on strategic alliances, which is then narrowed to introduce the strategic alliances which form the focus of this research project - M&A and IJV. The chapter highlights that high failure rate problems associated with organizational change are also found to be relevant for M&A and IJV. Therefore, the organizational change literature is briefly discussed, to view M&A and IJV as more complex forms of organizational change. This is followed by bringing to the fore the challenges posed by M&A and IJV in relation to people, culture and communication, the focus of this research. The gaps in the existing literature are identified, emphasizing the need for an alternative lens to view these complex change phenomena.

2.2. Literature Review Method

The two main bodies of literature relevant to this research are organizational change literature, with a main focus on strategic alliances such as M&A and IJV and complexity theories (see Chapter 3). Of particular interest is the overlap between the two literature areas shown in Figure 2.1 below. The dotted lines signify the boundaries of the literature reviewed for this research. In order to address the gap identified in the literature, at the intersection of these main bodies of literature lies the specific literature for this research.

Relevant literature for this research

Chapter 2 - Organizational Change - M&A and IJV

Chapter 3 - Complexity theories
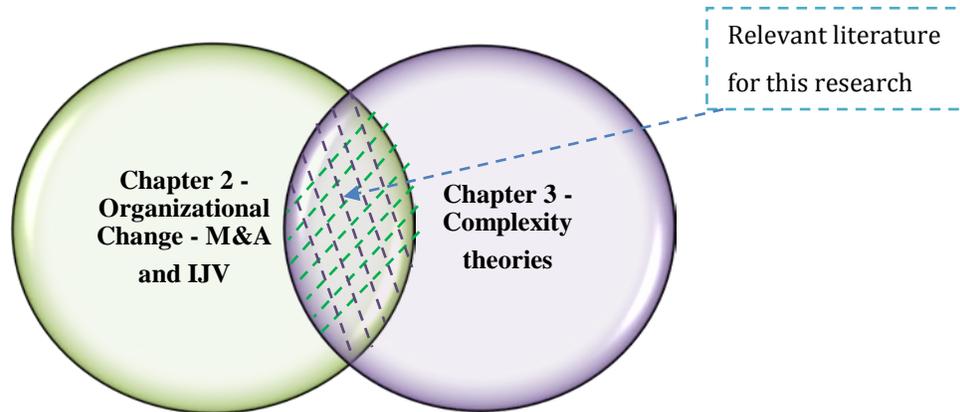
Figure 2.1 - Literatures Involved in this Research

The review of the literature began with keyword and database searches to find relevant articles located at the overlap between the two main literatures for this research. Database searches help speed up the search process but generate high volumes of results, which limits the practical selection of relevant sources. Therefore, a snowball technique was adopted, whereby references from the bibliographies of relevant texts were followed up, tracing forward and backwards in a systematic approach (Ridley, 2012). This expanded the review of both the literatures independently and also at the overlap. Appropriate academic journals were searched and reviewed using the 'league tables' with the help of academic quality guides such as the 'Association of Business Schools' (ABS). Other sources such as working papers, doctoral theses and conference papers have also been reviewed.

In the following sections, literature on strategic alliances such as M&A and IJV is critically reviewed under the broader umbrella of strategic alliances and organizational change. The inherent human, cultural and communication–related challenges embedded in M&A and IJV management are identified, followed by a reflection on M&A and IJV literatures.

2.3. Overview of M&A and IJV Literature

Both M&A and IJV literatures are spread across strategic management, finance, economics, organization theory and human research management (Larsson and Finkelstein, 1999). In relation to M&A, the management and finance disciplines

predominate research, with a main focus on USA and UK (Bengtsson and Larsson, 2012; Cartwright and Schoenberg, 2006). Moreover, M&A literature was found to be well summarised with papers such as Cartwright and Schoenberg's (2006) work summarizing 'Thirty years of M&A research: Recent advances and future opportunities'; Haleblian *et al.*'s (2009) paper on "Taking Stock of What We Know About Mergers and Acquisitions: A Review and Research Agenda" and Bengtsson and Larsson's (2012) recent working paper on "Researching Mergers & Acquisitions with the Case Study Method: Idiographic Understanding of Longitudinal Integration Processes". However, IJV literature was comparatively fragmented, with a lack of theoretical summary in terms of areas, context, focus and topics of research when compared with M&A literature. IJV literature is highly diverse in terms of research constructs, categories, approaches, methods and geography.   Therefore, the sparseness and variety in the IJV literature added to the challenge of finding the on-going dialogue amongst researchers in the IJV literature.

With regard to the terminology used in the literature, Cartwright and Schoenberg (2006) use the terms mergers and acquisitions interchangeably in their paper on summarizing thirty years of M&A research. Moreover, Schuler *et al.* (2004, pg.106) state that "although mergers and acquisitions are technically different, it is common to refer to all these means for combining the operations of two firms as mergers and acquisitions, or just M&As" (Charman, 1999; Deogun and Scannell, 2001). For IJV, Zaheer *et al.* (2003) suggest that since literature on merger of equals is scarce, one can consider 50/50 joint ventures literature for insights on the role of culture and identification in mergers. Thus, there is blending, overlapping and mixing of the terms merger, acquisition and joint venture in the literature. However, in this research, a comparative approach is adopted in reviewing M&A and IJV literatures in order to aid learning between different forms of strategic alliances. Examples of a similar approach are the work of Damanpour *et al.* (2012), which extended organizational acculturation research in M&A to understand how acculturation affects partner interaction processes in IJV, and Schuler *et al.'s* (2004) work in which they discussed IJV and M&A together on cross border alliance formations.

The outcome of this comparative view has highlighted that theoretically, M&A literature has focused on both organizational and employee level issues (Wagner and Hilal, 2014; Bastein, 1987; Buono and Bowditch, 1989; Bhal *et al.*, 2009) for M&A failure, but the main focus of IJV literature has been 'managerialistic', focusing on organizational level issues such as communication, conflict, learning and trust between managers with little or no attention on employees issues (Beamish and Lupton, 2009; Damanpour *et al.*, 2012; Brouthers and Bamossy, 2006). Moreover, M&A and IJV literatures complement each other. The profoundly researched concept of organizational learning in IJV can add to the M&A literature by encouraging management and employees to learn from each other. Similarly, many researchers have focused their attention on human issues in M&A but such a focus is rare in IJV. It is often assumed that human issues in IJV would be less severe than in M&A, despite repeated reports of IJV failures. The human factor of M&A has received comparatively more attention in the M&A literature since the early 1990s (Bastein, 1987; Buono and Bowditch, 1989). However, similar studies on how employees within an organization react to IJV are lacking.

Methodologically, Bengtsson and Larsson (2012) distinguish two schools of M&A research: the dominant and traditional nomothetic approach which emphasizes study of large samples with few aspects quantitatively explored, and the idiographic approach, which is mainly qualitative and involves multi-aspect in-depth study of one or a few cases. This same distinction can also be applied to the IJV literature. Contextually, in M&A literature the main focus has been on the post-acquisition or post-merger integration processes, which are considered to be comparatively messy, complex, lengthy and extensive (Bengtsson and Larsson, 2012). In contrast, most IJV studies have focused on the formation phases (Kale and Anand, 2006) with very few recent studies emphasizing a need to focus more on the post-formation phase of IJV (Damanpour *et al.*, 2012; Beamish and Lupton, 2009; Brouthers and Bamossy, 2006). However, both literatures recommend case study research approaches for closer examination of the M&A and IJV phenomena and suggest a focus on the post-integration phase (a common term used in this thesis for the post-acquisition or post-merger integration and post-formation phase) (Bengtsson and Larsson, 2012;

Beamish and Lupton,2009). This research takes a qualitative approach, with an in-depth study of a single organization involving merger, acquisition and international joint venture.

2.4. Strategic Alliances

Theoretically, "Strategic alliances involve two or more firms agreeing to cooperate as partners in an arrangement that's expected to benefit both firms" (Schuler *et al.,* 2004, pg.104). This arrangement could involve one firm taking an equity position in another firm or in extreme cases, one firm acquiring another firm. According to Schuler and Jackson (2001), M&A represent the end of the continuum of options organizations have in combining with each other, of which the least complex is licensing, followed by business alliances, partnerships and joint ventures. The same point is made by Todeva and Knoke (2005) who provide a table highlighting many forms of inter-organizational relations used by organizations seeking opportunities to improve efficiency and competitive advantage. The basic forms of inter-organizational formations appearing in the literature are illustrated in Table 2.1. The bottom line of the table shows pure market transactions which "do not require obligation for recurrent cooperation, coordination or collaboration among the anonymous exchanging parties" (Todeva and Knoke, 2005, pg.2). However, the top of the table indicates hierarchical authority relations where one firm completely takes over another, absorbing the firm's assets and personnel. IJV and M&A, both appearing at the top of the table, are equity based alliances which involve a long term collaborative strategy (Schuler *et al.*, 2004). This research focuses on three forms of strategic alliances, namely, mergers, acquisitions and international joint ventures.

HIERARCHICAL RELATIONS	Through acquisition or merger, one firm takes full control of another's assets and coordinates actions by the ownership rights mechanism
JOINT VENTURES	Two or more firms create a jointly owned legal organization that serves a limited purpose for its parents, such as R&D or marketing
EQUITY INVESTMENTS	A majority or minority equity holding by one firm through a direct stock purchase of shares in another firm
COOPERATIVES	A coalition of small enterprises that combine, coordinate, and manage their collective resources
R&D CONSORTIA	Inter-firm agreements for research and development collaboration, typically formed in fast-changing technological fields
STRATEGIC COOPERATIVE AGREEMENTS	Contractual business networks based on joint multi-party strategic control, with the partners collaborating over key strategic decisions and sharing responsibilities for performance outcomes
CARTELS	Large corporations collude to constrain competition by cooperatively controlling production and/or prices within a specific industry
FRANCHISING	A franchiser grants a franchisee the use of a brand-name identity within a geographic area, but retains control over pricing, marketing, and standardized service norms
LICENSING	One company grants another the right to use patented technologies or production processes in return for royalties and fees
SUBCONTRACTOR NETWORKS	Inter-linked firms where a subcontractor negotiates its suppliers' long-term prices, production runs, and delivery schedules
INDUSTRY STANDARDS GROUPS	Committees that seek the member organizations' agreements on the adoption of technical standards for manufacturing and trade
ACTION SETS	Short-lived organizational coalitions whose members coordinate their lobbying efforts to influence public policy making
MARKET RELATIONS	Arm's-length transactions between organizations coordinated only through the price mechanism

Table 2.1 – Varieties of Inter-organizational Relations (Todeva and Knoke, 2005, pg.3)

However, in spite of the terms being used interchangeably in the literature (see section 2.3), there exists definitional difference between merger, acquisition and international joint venture, which should be clarified. Marxt and Link (2002, pg.220) define joint ventures as "a collaboration between two or more independent companies with no financial or legal connection. The companies coordinate or merge business processes in order to improve their overall performance." Schuler *et al.* (2004) state that in a joint venture, alliance partners form a separate legal organizational identity which represents the partial holdings of two or more parent firms. Similarly, Beamish and Lupton (2009, pg.75) state that "equity JVs are legally distinct business units, owned by two or more partner firms". In an international joint venture, at least one of these parent firms is headquartered in a different country. The parent organizations exhibit joint control over the new joint venture entity (Schuler *et al.*, 2004). With regard to merger and acquisitions, Schuler and Jackson (2001, pg.106) state that in a merger, "two companies agree to join their operations together to form

a new company in which they participate as equal partners. In an acquisition, one firm buys controlling or full interest in another firm with the understanding that the buyer will determine how the combined operations will be managed". McGee (2005) defines a merger as the bringing together of businesses of equal size, paid by exchange of shares and with no premium, in contrast to an acquisition which involves a dominant party controlling another organization and payment of a premium. According to Schuler *et al.* (2004), most acquisitions are friendly, where a firm bids voluntarily for acquisition of another firm; but sometimes firms become a target for takeover. M&A can be further subdivided into merger between equals, which results in equal staffing implications and merger between unequal where staffing implications are not in the same proportion, and similarly, acquisitions which involve complete takeover and integration of all business aspects and acquisitions which involve separation of the acquired entity (Schuler and Jackson, 2001).

2.5.   Importance of M&A and IJV

Strategic alliances, partnerships and international joint ventures have grown exponentially since the 1980s and are now increasingly common globally (Damanpour *et al.*, 2012, pg.454). Joint ventures, mergers and various other forms of strategic alliances and business associations have been used by organizations in order to expand in terms of size, power and wealth and have also been viewed as a quick way to enter new markets, protect profits from taxation, make portfolio additions etc. (Bastein, 1987; Schuler and Jackson, 2001; Sirmon and Lane, 2004, Brendan, 1991). Schuler *et al.* (2004) argue that firms use several forms of alliances such as joint ventures, mergers and acquisitions to develop capabilities to compete and evolve. Damanpour *et al.* (2012) claim that joint venture as a strategy enables partners to create economies of scale, enter and expand markets, manage risk and innovation, learn new skills and technologies and develop new products and services faster than trying to work in isolation. Beamish and Lupton (2009) support this by stating that IJVs help organizations in accessing new markets, knowledge, capabilities and other resources. They also state that there are other reasons for choosing IJV, such as to overcome barriers to entry or to experience operating in international markets. Moreover, they claim that from the perspective of the host country, local

organizations are able to enhance their technological capabilities and benefit from new market opportunities brought by foreign partners. Anand and Delios (1997) state that in turn, local partners provide downstream resources, such as marketing and sales capabilities, to their foreign partners. In the context of M&A, Denison *et al.* (2011) claim M&A have become an integral part of organizational strategic growth and, Aguilera and Dencker (2004) believe that, in spanning national borders, M&A provides organizations with a competitive advantage in the complex global economy. Beamish and Lupton (2009) view IJVs as an important source for learning and knowledge transfer, and anticipate that this trend will continue. M&A and IJV provide "firms the opportunities to explore knowledge and capabilities which are not currently controlled or available within their home country" (OECD, 2000 in Sirmon and Lane, 2004). Schuler and Jackson (2001, pg.240) and Schuler *et al.* (2004, pg. 108) state some of the frequent reasons for M&A and IJV activity respectively. These reasons are illustrated in Table 2.2:

Reasons for M&A	Reasons for IJV
Horizontal mergers for market dominance; economies of scale and Survival; critical mass	To gain knowledge to learn and to transfer that knowledge
Vertical mergers for channel control	Host government insistence
Hybrid mergers for risk spreading, cost cutting, synergies, defensive drivers	To gain rapid market entry and catch more customers
Growth for world class leadership and global reach	To capture increased economics of scale
Acquisition for cash, deferred taxes, and excess debt capacity	To gain local knowledge and local market image and channel access
Move quickly and inexpensively and for flexibility; leverage	To obtain vital raw materials or technology
Bigger asset base to leverage borrowing and Adopt potentially disruptive technologies	To spread the risks
Financial gain and personal power and Gaining a core competence to do more combinations	To improve competitive advantage in the face of increasing global competition
Talent, knowledge and technology today	To support company strategies for internationalization

Table 2.2 – Reasons for M&A and Reasons for IJV (Schuler and Jackson, 2001, pg.240 and Schuler, 2001, pg.4)

In the context of emerging economies such as India, the M&A market has seen a steady increase over the years. M&A activities in India were predicted for 2014, with 15 such deals in the first two months of the year (*The Firm*, 2014 and *The Economic Times*,

2013). Budhwar *et al.* (2009) claim M&A activities rejuvenate organizations and contribute to business restitution. Brendan (1991) sees M&As as a brilliant opportunity to capitalise on management development. According to Schuler and Jackson (2001), out of all the numerous reasons for companies to merge or acquire, 'talent, knowledge and technology' is rising in its level of importance. They also state that companies successful in their attempts not only create value but also increase their core competency in the market. Hence, they argue that irrespective of the industry sector, it has become nearly impossible for companies to survive the market competition without expanding through mergers and acquisitions. Dickerson *et al.* (1997) state three advantages of acquisitions: a) quick returns; b) product range expansion; c) removal of the potential competitor threat which exists when building from scratch.

Moreover, IJV are also becoming an increasingly popular way for organizations to expand internationally and exercise strategic capabilities (Schuler, 2001; Cyr, 1997). They are especially prevalent in rapidly changing industries such as pharmaceuticals, biotech, media, entertainment, airlines and high tech (Sparks, 1999). IJVs can be a source of competitive advantage and reduce investment risk by developing partnerships with firms that have local knowledge and international experience (Beamish and Lupton, 2009). Moreover, research suggests investing financial capital and resources in JV creates more economic value than a go-it alone strategy (Beamish and Lupton, 2009). Beamish and Lupton (2009, pg.75) note that IJVs constitute a substantial proportion of foreign entry and investment. Comparing IJVs with acquisitions, they claim, "JVs enable firms to access each other's complementary resources and capabilities in order to achieve economies of scope and/or scale, and to develop new products faster, more reliably, and more cheaply than could be done by either firm acting alone or through acquisition". They further claim that unlike non-equity alliances, investment in IJV indicates partner commitment, increasing the probability of success. Kale and Anand (2006) argue that especially in India, IJVs have become an important part of the business landscape since the economic liberalization in the 1990s. According to UNCTAD (2009), India ranked third in inbound Foreign Direct Investment (FDI) and was expected to remain as one of the top investor

destination in the coming years (Damanpour *et al.*, 2012). The Ministry of Commerce and Industry (2003) has adopted a deliberate strategy of encouraging FDI by encouraging IJVs between foreign and Indian firms, through implementing policy changes such as a lower capitalization limit for IJV formation (Damanpour *et al.*, 2012).

2.6. M&A and IJV as Organizational Change

 "M&A necessarily involves organizational change, integrating some or all parts of the original organizations' functions and activities. The degree of organizational change can vary substantially across M&As because the motives and types of M&As differ widely" (Seo and Hill, 2005, pg.423). It can also be argued that IJVs are also organizational changes that lead to integration of some part of the organization's functions and activities dependent on the aims and objectives of the partner organizations. Hence, both M&A and IJV can be viewed as types of organizational changes which intend collaboration between two or more entities to meet a strategic purpose and their management stems from the insights on organizational change management in general. According to Todnem By *et al.* (2014) based on their investigation of organizational change discourse in the past five decades, 'organizational change' is the most general and enduring of all terms used in the literature such as 'organizational development', 'planned organizational change' and 'change management'. However, the increase in use of the term 'change management' instead of 'organizational change' is a recent phenomenon from 1990 onwards. Nevertheless it was apparent in their research that 'organizational change' is still the most widely used phrase in the context of change-related activities in organizations and hence, it will be used for this research.

Moran and Brightman (2001, pg.111) define organizational change as "the process of continually reviewing an organization's direction, structure, and capabilities to serve the ever changing needs of external and internal customers'. According to Burnes (2004), change is an omnipresent characteristic of organizational life and is existent at both operational and strategic level. Moreover, Burnes (2004) argues, organizational change and organizational strategy are inseparable.

Due to this importance of organizational change, its management has become a highly important managerial skill (Todnem By, 2005; Senior, 2002). In Graetz's (2000, pg. 550) view, "the primary task of management today is leadership of organizational change". Similarly, Armenakis and Harris (2009) assert that in order for organizations to survive and prosper, leaders must have the knowledge to implement appropriate organizational changes that will be embraced by their employees.

Nasim and Sushil (2011) argue that explaining change has become a centre of attention and an enduring mission for many organizational scholars. However, Sturdy and Grey (2003) criticize the epistemological concern of organizational change management literature for its 'pro-change bias', 'managerialism' and 'universalism'. This stance has also taken an ontological turn with claims of 'totalitarianism for change' leaving no room for 'no change'. In spite of these debates, successful management of change is critical for organizations in today's highly competitive and evolving environment (Todnem By, 2005).

According to Mintzberg *et al.* (1995), critical changes in organizations include both strategy and organization. One of the ways these strategic changes are implemented by organizations is through formation of strategic alliances such as mergers, acquisitions and joint ventures. Schuler *et al.* (2004) claim that as nations have discovered the benefits of economic cooperation so have businesses; they have learnt to grow by forming strategic alliances. However, in organizational change literature, Nasim and Sushil (2011) argue that despite all the knowledge available on change and transformation, the voyage of change has been difficult terrain for many organizations, with a low success ratio of 1:3 from both social and economic perspectives. Burnes and Jackson (2011) and Balogun and Hope Hailey (2004) claim a 70% failure rate of all change initiatives. Evidences to support high failure rate claims exist from both leading practitioner firms such as McKinsey & Co. (Beer and Nohria, 2000a) and Bain and Co. (Senturia *et al.*, 2008) and academic scholars such as Kanter (Kanter and Corn, 1994) and Kotter (1996) (Burnes and Jackson, 2011). This high failure rate problem is also true in the context of complex organizational changes such as M&A and IJV, as will be discussed next.

2.7. High Failure Rate of M&A and IJV

Both M&A and IJV are difficult and complex to manage and experience high failure rate. In spite of many reasons favouring M&A activity (see section 2.5), most research suggests that failure is more likely than success. Various researches conducted by academics and practitioners have highlighted different failure rates, which shows the lack of clarity in providing an exact percentage on change failure. According to research by the American McKinsey Consulting Corporation on worldwide mergers and acquisitions, only about one third of M&As are successful (Huiyuan and Xin, 2008). Schuler and Jackson (2001) state that more than 75% fail - in the USA, only 15% of the deals achieve their financial objectives and in Europe, a 1995 study of large combinations – deals valued at 500 million dollars or more - showed one-half of the deals destroyed shareholder value. Habeck *et al.* (2000) also state that 70% of M&A's fail to meet their objectives of finance and shareholder value enhancement. Agrawal and Jaffe's (2000) review of the literature suggests the acquiring firm's shareholders only enjoy positive returns in the short term, and experience share price underperformance in the months following acquisition, with results being negative or not statistically different from zero. Bastein (1987) state that two-thirds of the M&A acquirers did not even achieve as much as they would have achieved by investing the money in bank certificate deposits. Wagner and Hilal (2014) claim, based on a study conducted by KPMG, that the rate of failure of M&A processes ranges from 75 to 83 per cent (Nguyen and Kleiner, 2003). Cornett-DeVito and Friedman (1995, pg.47) also state that even though M&A "are initiated with optimistic aims, a remarkable number prove disappointing. The acquirer's objectives are not met in 50 to 85 per cent".

IJVs are considered to be a less complex form of combination than M&A (Schuler and Jackson, 2001; Todeva and Knoke, 2005). A complete merger or acquisition between two firms can be considered as an extreme outcome of an IJV (Todeva and Knoke, 2005). It is also a less costly option than M&A in terms of organizational integration issues in a new culture (Kogut and Singh, 1988). However, Schuler *et al.* (2004) argue that managing IJV is also complex and difficult, like M&A. Brouthers and Bamossy (2006) argue that even if IJVs are a well-known expansion strategy, many scholars have noted that many IJVs do not succeed. Sparks (1999) states despite the increase in

number of such ventures, many appear to fail. Todeva and Knoke (2005) claim an alarming 50 per cent failure rate of joint ventures. Schuler *et al.* (2004) also agree that many IJVs ultimately fail as the objectives of combining firms are not met. Kale and Anand (2006, pg.74) argue that in spite of the tremendous popularity and relevance of JVs between MNCs and local companies in emerging economies until the recent past, this organizational form is clearly facing uncertainty. The main challenges facing M&A and IJV especially in the post-integration (or formation) stages are discussed separately in the following sections after highlighting the research boundary.

2.8.   Research Boundary

In view of rapid business expansion and to meet the demands of globalization, M&A and IJV would be expected to increase considerably in the future. Their importance in the current connected global world cannot be underestimated (see section 2.5). However, the reported high failure rate is alarming (see section 2.7). The underlying uncertainty, unpredictability and management challenges involved in these strategic alliances cannot be ignored (see sections 2.9 and 2.10). Both M&A and IJV literatures are multidisciplinary in nature, with a spread across strategic management, finance, economics, organization theory and human research management (Larsson and Finkelstein, 1999). All these domains propose various reasons for failure of M&A and IJV within the context of their disciplines. However, it is important to acknowledge Van de Ven and Poole's (1995, pg.512) notion that "It is the interplay between different perspectives that helps one gain a more comprehensive understanding of organizational life, because any one theoretical perspective invariably offers only a partial account of a complex phenomenon". Gregory *et al*. (2013, pg.566) argue that "to attempt to understand the whole system is an impossible task", however, acknowledgement and acceptance of lack of comprehensiveness provides transparency to the research process and critical reflection on the research limitations (see Chapter 8 section 8.6). The researcher acknowledges Van de Ven and Poole's (1995) and Larsson and Finkelstein's (1999) recommendation of holistic and integrated approaches that incorporate economics, finance, and strategy, along with a focus on human resource management, with the aim of synergy realization and success of M&A and IJV. But the grand endeavour for such holism is an ideal and

limitations of time, expertise and organizational access compel one to draw a research boundary (also see sections 4.2.1.1. and 4.2.1.2).

This research places the boundary across the neglected areas of M&A and IJV, i.e. human, cultural and communication issues (see sections 2.9 and 2.10) where contribution to knowledge can be made. Wagner and Hilal's (2014) study indicated that even though the human factor is not given priority in most M&A processes, it plays a crucial role to its success or failure. They recommend a match between M&A strategies and the intricacies of the human factor and related cultural environment. This research agrees that communication plays a very critical role in M&A and IJV management but it also acknowledges the complexity around communication of these complex changes (see sections 2.9.3. and 2.10.5). The human, culture and communication challenges highlighted in M&A and IJV literature provide further insight on the dynamics of post-integration stages (or the formation stage in case of IJV) of M&A and IJV and are discussed in the following sections.

2.9. M&A Challenges

Larsson and Finkelstein (1999, pg.1) argue that "mergers and acquisitions are complex events in organizational life for which we have incomplete understanding, in part because researchers have tended to consider only partial explanations of them." Bengtsson and Larsson (2012, pg. 16) argue that "M&A are unique and complex events that highlight both value-creating and value-destroying organizational processes". When probing the reasons for organizations to choose M&A as part of their strategies, Schuler and Jackson (2001) and Schuler *et al.* (2004) argue that people-related reasons are rising in level of importance for M&A activity along with strategic, legal and financial reasons. They believe that companies that pursue 'talent, knowledge and technology' not only create value but also increase their core competency in the market. Critchlow (2003) highlights that service companies are increasingly becoming part of the global economies. Hence, chief assets are not merely factories or equipment but people. Expertise and customer relationships of employees help firms to reap benefits from these strategic combinations. Therefore, people within the organization form an integral part of M&A. But paradoxically, people and culture-related reasons are also one of the most cited reasons for M&A failure in the

post-integration stages (Schuler and Jackson, 2001; Bastein, 1987; Buono and Bowditch, 1989; Cartwright and Schoenberg, 2006; Cartwright, 2005; Cartwright and Cooper, 1992). Mirvis and Marks (1985, 1992) also claim cultural clash, employee retention, motivation and rumours as central issues around M&A. Mitleton-Kelly (2006) agrees that most M&A issues are related to people and culture. These issues and challenges in the context of M&A are discussed in the following sub-sections.

2.9.1. People

Research demanding attention towards the human factor of M&A began in the 1980s (Bastein, 1987; Buono and Bowditch, 1989) but to date the human factor in M&A processes is often overlooked and underestimated (Wagner and Hilal, 2014). However, practitioner firms like Pricewaterhouse Cooper (2010), Deloitte (2009) and authors from Towers Perrin - Giffin and Schmidt (2004) all have published reports on the 'people side of M&A' in the last decade. This highlights three things – firstly, it is not only academics but also practitioners who have started to pay a lot of attention to the human side of this complex change phenomena. Secondly, there has been a shift in thinking from organizational level to individual level and from strategic and financial aspects toward more people-oriented approaches. Finally, it reflects deeper realization of the importance of people as an asset in the success of M&A.

Cornett-DeVito and Friedman (1995, pg.46) state that M&A is "a time of great organizational upheaval" (Corwin, Weinstein and Sweeney, 1991, pg.47), while Schmidt (2002, pg.8) identifies that the top seven obstacles in M&A failure are "directly or indirectly related to strategic management of people". Wagner and Hilal (2014, pg.262) claim that "managing change and its effect on employees in M&A process is one of the biggest challenges faced by managers". Out of many factors related to acquisition failure, at least half were directly related to people and people management, according to Georgiades and Georgiades (2014). Schuler and Jackson (2001) state that understanding of type of M&A is critical as each has its own set of people management issues which need careful attention. However, they emphasize that people issues are higher in various phases of M&A integration. Bhal *et al.* (2009) argue that the human aspect of M&A has been identified as a most complex part of this dynamic organizational change. The main problem with M&A which leads to people-

related challenges is that such decisions are not formally announced to the employees until the final days, in order to minimise the risks of stock changes and threat from competitors (Werhane, 1988; Schweiger and DeNisi, 1991). Moreover, some authors, like Schweiger and DeNisi (1991, pg.111), suggest that any sort of "communication might alert employees to leave the organization rather than endure changes". Therefore, it is difficult to answer the question of whether management should communicate the information about M&A to employees or not. It is recognised, though, that lack of communication increases uncertainty, stress, anxiety and confusion amongst employees (Werhane, 1988; Schuler and Jackson, 2001; Chun, 2009; Balle, 2008; Bastein, 1987; Cartwright and Schoenberg, 2006; Cartwright, 2005; Cartwright and Cooper, 1992; Grantham, 2007). These uncertainties and ambiguities involved in M&A induce strong psychological impact on employees (Bhal *et al.*, 2009). Under such circumstances of uncertainty employees seek comfort by indulging in rumours (Schweiger and DeNisi, 1991). Bastein (1987) states rumours are generally used to fabricate a reality that fits into a particular situation. He further state that such fabricated realities are worst and dependant on motive of the initiator. Hence, the announcement of important changes after rumours results in negative reactions and dissatisfied employees (Cornett-DeVito and Friedman, 1995). Schweiger and DeNisi (1991, pg.111) state that uncertainty and anxiety combined with rumours lead to "stress, job dissatisfaction, low organizational trust, commitment, turnover, absenteeism and low productivity". Hence, uncertainty, stress, loss of identity and rumours are the central issues during M&A (Wagner and Hilal, 2014; Schweiger and DeNisi, 1991; Bastein, 1987; Maguire and Phillips, 2008). Maguire and Phillips (2008) studied the loss of institutional trust after a merger has taken place. The study demonstrates empirically how institutional trust is related with identity. It further brings forward two important findings, a) ambiguity regarding new organization's identity undermines institutional trust; b) this undermining continues in spite of less ambiguity due to absence of employees' identification within a new organization.

Elster (1999) believes that study of human behaviour will be incomplete if not seen through the prism of emotion. Fineman (2000) also state that organisations are increasingly considered to be 'emotional arenas'. However, Kusstatscher and Cooper

(2005) argue that though several disciplines highlight the importance of emotions in understanding human behaviour, M&A literature has been largely neglecting emotional issues. Employee behaviour during the period of merger and acquisition can be associated with Kubler-Ross "coping cycle" or model of personal bereavement (1969) (Huczynski and Buchanan, 2007, pg.594; Appelbaum *et al*, 2000b). Referring the Figure 2.2 below, an employee goes through various stages of emotional turbulence before reaching final consensus and finding answers to various unanswered questions. The end result could be a resignation leading to high attrition or acceptance of the change. However, accepting the change, does not guarantee the same respect towards the acquiring organization or the same zeal and passion for the assigned tasks (Cartwright and Cooper, 1992). Both of these outcomes could bring loss to the acquiring organization.
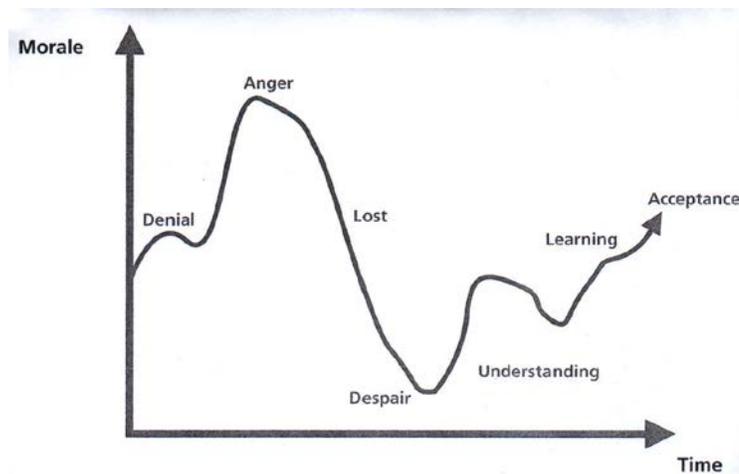
Figure 2.2 - The grief and loss model (Kubler-Ross, as adapted by the 'Improvement Leaders Guide - Managing the Human Dimensions of change: NHS Institute for Innovation and Improvement', 2005, Pg. 9)

M&As bring about emotions such as irritation, anger, depression, aggression, frustration and anxieties regarding loss of career opportunities or fear of job loss (Kusstatscher and Cooper, 2005). The literature highlights different kinds of emotions in M&A. The spectrum of emotions ranges from very negative or unpleasant emotions to positive or pleasant emotions (Kusstatscher and Cooper, 2005). Moreover, the focus on negative emotions and its harmful effects is more dominant in M&A

scenarios. Employees do not immediately see the upcoming M&A as a positive challenge. Kusstatscher and Cooper (2005) believe that these changes are viewed as threat, and not usually many employees experience joy or pride after M&A, and even if they are, these employees are more likely to be found in the acquiring organisation. Anxieties emerge from fear of loss of power, position or job. This anxiety then spills into employees' family life leading to frustration, depression, apathy (Cartwright and Cooper, 1996, 1993a; Appelbaum et al., 2000a, 2000b) and cases of suicide are also known in extreme cases (Buono and Bowditch, 1989). Managers in such circumstances leave employees alone as managers are stressed, insecure, and unaware of what and how to tell their staff (Marks, 1999), and often do not know how to deal with employees' emotions (Kusstatscher and Cooper, 2005). This lack of communication leads to furthermore, distrust and breach of psychological contract between managers and employees. Tiersten's (1989) research found that an increase in employee health care cost is also soon observed after M&A. A reason for high levels of stress is provided by Grantham (2007) who notes that employees whose work life is affected by M&A have limited choices when it comes to these organizational level corporate decisions. Therefore, she claims employees resist such changes and enforced changes become even more difficult to accept. In spite of such serious problems experienced by the workforce, employees in the acquired organizations are expected by management to carry on with their business as usual assuming nothing has changed despite the potential of rumours, threats to jobs, financial speculations and cultural adjustments. Marks and Mirvis (1986) coined the term "merger syndrome" which Gutknecht and Murkison (1994) characterized as state of stress, anxiety and uncertainty. Kusstatscher and Cooper (2005, pg.27) define "merger syndrome" as "a normal and expected human reaction to the experience of such a major corporate change", and believe that M&As are emotionally challenging periods and can be recalled in detail even after long time as these changes are associated with the emotion this event evoked. In summary, they distinguish between causes and consequences in context of merger syndrome (see Figure2.3 below).

Causes	Mediator	Outcomes
Uncertainty Higher workload Installed crisis management Centralization of decision making Less top-down communication (rumour mills start) Heightened self-interest Power games and internal conflicts Loss of identity Loss of organisational culture	**Emotions** Fear and anxiety Feeling of insecurity Aggression, anger and rage Feelings of impotence and degradation Frustration, depression and apathy Distrust and suspicion Jealously Shame and guilt Grief and compassion Exhaustion Pride and Joy	Perceived stress Decreased motivation (work-to-rule) Lower job satisfaction Reduced commitment Rumour mill From loss of best employees to mass exodus Less cooperation (internal conflicts) Higher tensions in relationships People's health deteriorates Performance decreases

Figure 2.3 – Overview of merger syndrome (Kusstatscher and Cooper, 2005, pg. 26)

Under such emotionally turbulent times due to personal uncertainty and fear, employee retention becomes a challenge (Galbraith, 1977). Bastein (1987) draws a link between people issues and attrition. He states that under such circumstances, employees display a fight-flight reaction illustrating resentment against forced intrusion of the acquiring management at the fight end and preparing to leave the organization at the flight end.

Attrition of key employees

The high level of employee attrition after M&A is very evident in the M&A literature (Chun, 2009; Walsh, 1988; Tiersten; 1989; Powers; 1987; Martin and McConnell, 1991). Dahya and Powell (1998) conclude that successful takeovers, irrespective whether they are hostile or friendly are generally associated with high turnover of management and key employees and evidence from the of U.S. and U.K. highlights reshuffling of assets in terms of employee layoffs after M&A. Cartwright and Schoenberg (2006) highlight that high turnover rates are one of the reasons which make longitudinal studies of M&As difficult. Chun's (2009) research study showed the signs of crisis in a merged organization due to high employee turnover, even when the organization was receiving positive comments from the media about legal and economic responsibilities. Walsh (1988) also cites top employee turnover as an important internal factor in a significant number of M&A failures. Tiersten (1989) indicates M&As lead to high levels of employee attrition. Past research such as Fiderio

(1989) and Powers (1987) has reported high levels of attrition after acquisition. Gutknecht and Murkison (1994) mention that the turnover rate of executives of acquired organizations significantly increases soon after M&A. They also mention the *'ripple'* effect of M&A, which states the organizations face unexpected problems due to unpredictable attrition of key personnel soon after M&A. Critchlow (2003) cautions that people are assets of M&A, but may leave when things get uncomfortable, leading to high attrition after M&A. Hence, the review of the M&A literature clearly states the level of attrition of key personnel after M&A is high (Walsh, 1988; Martin and McConnell, 1991; Franks and Mayer, 1996; Kennedy and Limmack, 1996; Dahya and Powell, 1998).

Larsson and Finkelstein (1999) claim employees' reactions to M&A play a critical role in its success. Paine and Power (1984) recommend that the acquiring company should take efforts to retain the acquired management and employees. These efforts of retention are crucial when acquiring management is looking for diversification as the expertise and knowledge of acquired management is critical to save the product and market share (Pitts, 1976 cited in Walsh, 1988). Wagner and Hilal (2014) propose that managing M&A involves dealing with employees' expectations, uncertainty and stress, as this helps in minimizing the impact of resistance to change which in turn can increase employee retention and reduce turnover, leading to successful M&A outcomes. Larsson and Finkelstein (1999) recommend an integrated perspective which incorporates not only economics, finance, strategy but also human resource management aiming for synergy realization for M&A success. Schuler *et al.* (2004) state the importance of human resource management in all stages of M&A – pre-combination, combination and integration, and solidification and assessment.

2.9.2. Culture
One of the most frequently cited yet rather poorly defined reasons for M&A failure is lack of cultural compatibility or cultural fit (Cartwright and Schoenberg, 2006). Critchlow (2003) warns that rapid increase in cross-border M&A adds to the challenge of managing national cultures. Moreover, Krug and Aguilera (2005) indicate a link between culture and attrition, arguing that due to acculturative stress, on an average 70 per cent of the executives leave within five years of acquisition. Schuler *et*

al. (2004) claim the failure of the DaimlerChrysler cross-border merger was due to difference in national and company culture. However, Bastein (1987), Sales and Mirvis (1984), Mirvis and Marks (1985, 1992) and Marks and Mirvis (1986) state, some level of anger amongst acquired employees is expected because of change in the new dominant culture. Bastein (1987) explains that because of their deep attachment to the existing culture; it is difficult for employees to adapt to new organizational cultural changes and practices. Sales and Mirvis (1984) agree that imposition of a new culture is a common source of conflict in M&As. In the view of Bastein (1987), accommodation to the new culture is primarily a reaction toward behavioural practices such as 'who gets to decide', 'what rules of conversation will be followed', 'what jargon will be used' etc. Such issues are often neglected, according to Schuler and Jackson (2001) who claim that many businesses focus on financial and operational issues, hoping that culture would sort itself out. However, dealing with cultural differences is essential for making acquisitions successful (Bastein, 1987; Schuler and Jackson, 2001; Gutknecht and Murkison, 1994). In Bastein's (1987) view, coping with cultural differences is an essential part of accommodating to an M&A. Several researchers have focused on acculturation aspects of M&A in an attempt to understand the dynamics of two different organizations coming together. For example, Birkinshaw, Bresman & Hakanson (2000) argue that cultural compatibility aids smooth integration as it reduces individual level acculturative stress. Therefore, a multicultural (bicultural) approach is preferable to a unicultural approach for both the acquiring and the acquired firms (Malekzadeh and Nahavandi, 1990). Cartwright and Schoenberg (2006, pg.83) state, "In M&A situations, the *discourse* around cultural differences is a vehicle by which employee groups assert the distinctiveness of their social identities". Bastein's (1992) findings indicated that culture change does not take place gradually or incrementally in the entire organization, it either happens quickly or not at all and it happens in the sub-groups of the organization. He examined by use of linguistics the process of employee accommodation into the acquired organization culture. The important insight provided by this research is that the conflicts associated with M&As are between employees who choose to accept the culture and those who do not. This implies a need for cultural uncertainty to be managed through communication (Bastein, 1987). Wagner and Hilal (2014) also

emphasize the importance of communication for managing uncertainty and employee expectations. The following comment by Gutknecht and Murkison (1994, pg.47) can be applied to M&A shareholders:

'It appears that many managers (shareholders) seem to think that "things will settle down" after M&A. The unanswered question is "At what cost?"...... Employee problems are a contributing problem for approximately 30 percent failed M&As......A suggestion is for managers and human resource managers to determine to answer employee fears. Again, the key is open and accurate communication'.

Accordingly, communication issues will be examined next.

2.9.3. Communication

The importance of communication has been stressed in M&A literature. Cornett-DeVito and Friedman (1995) divide communication research on M&A into two categories - a) Prescriptive b) Specific. Prescriptive research has made strong claims that communication improves M&A performance; a few examples are Bastein (1987), Schuler and Jackson (2001) and Chun (2009). Bastein (1987) studied common patterns in M&A by conducting a survey involving focused interviews of 21 professionals involved in three separate M&As. The results suggested that communication is a central aspect to manage rumour mills, employee turnover and employee productivity. He states in conclusion that "Communication is the key in managing uncertainty in the acquired organization" (pg.32). Schuler and Jackson (2001) in a conceptual paper on Human Resource issues and activities in Mergers and Acquisitions suggest issues and role of human resources in three stages of M&A, namely, a) pre-combination b) combination c) solidification and assessment of the new entity. The criticality of communication is especially discussed in stage 2 – combination for employee retention and productivity. They provide a prescriptive conclusion stating "employee communication, retention of key employees and cultural integration are the most important activities in the HR area for successful M&A integration" (Schuler and Jackson, 2001, pg. 251). Chun's (2009) research paper on corporate social responsibility towards employees in M&A also states the need of an

effective communication programme during M&A to reassure and engage employees in turbulent times.

The work of Bhal *et al.* (2009) and Schweiger and DeNisi (1991) are examples of specific research on M&A communication which highlights recent advances in research practices. Bhal *et al.* (2009) reported the leader communication and employee responses to M&A by analysing two mergers. Data involved 225 manager responses to a structured questionnaire based on leader member exchange (LMX) exchange standard scales. The results indicated that "affect mediates the relationship between cognitive and behavioural reactions to M&A. Leader communication fully mediates the relationship of the contribution dimension of LMX with cognitive reactions" (Bhal *et al.*, 2009, pg.604). Schweiger and DeNisi (1991) examined the impact of a realistic "merger preview" on employees of a company that had announced a merger. The study provided useful comparative insights on realistic communication, as employees in one plant received merger preview while others did not. The results indicated that the realistic merger preview helped decrease unwanted outcomes in comparison with the plant which received less information.

Wagner and Hilal (2014, pg.269) claim that "the best approach for a corporation to deal with the anxiety, uncertainty and stress that are part of a M&A process requires the involvement of all the employees in the adopted communication strategy". Schweiger and DeNisi (1991) mainly draw attention to the importance of communication in order to reduce uncertainty, while Marks (1982) advises that communication may set a tone of security and reassurance during corporate acquisitions. Ivancevich *et al.* (1987) recommend that management should communicate on matters that are of particular interest to employees such as layoffs, pensions, work regulations and rules etc. Schweiger and DeNisi (1991, pg.111) recommend, "Managers should communicate what they know and ensure that employees are never intentionally deceived. They can offer to answer questions and explain why some questions cannot be answered". However, Mirvis and Marks (1985, 1992) also advise caution, stating that the high amount of uncertainty, fear and stress around M&As results in increased suspicion towards all aspects of communication. Therefore, Bastein (1987) warns that inadequate or poor quality communication can

lead to rumour mills, low productivity, increased stress and uncertainty which in turn could result in high employee turnover. Schuler and Jackson (2001) also note the potential for uncertainty and insufficient communication to upset valuable employees and argue that for this reason, planned communication is a must. Balle (2008) agrees that communication plays a very critical role in the post-acquisition stage. Since lack of communication results in loss of productivity, decreased retention rate and impacts financial health of the organization, Grantham (2007) emphasizes the value of prior risk assessment of the problematic issues and then development and implementation of a strategic communication plan.

Communication also plays an important role in reducing employee attrition; the literature highlights a direct link between effective communication and low employee attrition during M&A (Call, 1991; Cumpton, 1991; Schuler and Jackson, 2001). This is because good communication enhances employee morale and job satisfaction, resulting in lowered attrition of key personnel (Call, 1991; Cumpton, 1991). Grantham (2007) in her research of the merger between Merrill Lynch and Advest argues that a timely strategic communication could have helped Merrill Lynch retain Advest's financial advisors. Schuler and Jackson (2001) also assert that a well-managed communication process is a key to retaining and motivating employees. Studies by Bartels *et al.* (2006) and Van Dick, Ullrich and Tissington (2006), both importantly highlight the importance of communication to help generate positivity about the M&A and to encourage a sense of belonging amongst employees (Cartwright and Schoenberg, 2006). Chun (2009) states the need for an effective communication programme during M&A to avoid uncertainty and rumours. Gutknecht and Murkison (1994) similarly recommend open and accurate communication as a key towards successful M&A.

2.9.4. Summary
This section has addressed important challenges in M&A management. The main issues discussed have been people and culture-related challenges. The extant literature shows that careful assessment of human, cultural and communication issues in all the stages of acquisitions is important. Previous research has demonstrated the important role played by communication in M&A management. It was emphasized

that effective communication can help address people and attrition issues. Prescriptive research related to M&A and communication introduced the role of communication in M&A studies (Bastein, 1987; Schuler and Jackson, 2001; Chun, 2009). This strand was further developed with more specific research, wherein much closer communication analyses were performed at M&A sites (Bhal *et al.*, 2009; Schweiger and DeNisi, 1991).

2.10. IJV Challenges

Beamish and Lupton (2009, pg.90) emphasize the importance of joint ventures in the global environment by stating, "We live in a time when the global economy is increasingly integrated. Neither countries, nor firms, nor managers can do it alone without sacrificing the advantages of good partnerships. Equity JVs will continue to matter." They believe that this importance is also reflected in the attention management scholars have paid to joint ventures and hence, suggest that there is no other alternative to an active management when it comes to joint ventures. But at the same time, despite the growing popularity and strategic benefits of IJV, they are risky, challenging, uncertain and complex to manage (Beamish and Lupton, 2009; Damanpour *et al.*, 2012; Kale and Anand, 2006; Baughn *et al.*, 2011; Brouthers and Bamossy, 2006).

Beamish and Lupton (2009, pg.79) identify four stages of IJV, namely, "(a) assessing the strategic logic for creating the venture, (b) selecting a partner, (c) negotiating the terms, and (d) implementation and ongoing management of the business." More simply, Damanpour *et al.* (2012) argue that the first three stages constitute the formation phase and the fourth phase comprises the post-formation phase of IJV. Increasingly various studies such as Damanpour *et al.* (2012), Beamish and Lupton (2009), Brouthers and Bamossy (2006) have started to focus on the post-formation phase of IJV, believing that the post-formation phase is crucial for the IJV success. According to Brouthers and Bamossy (2006, pg.204), post-formation process research is important as it explains "(1) how to overcome barriers to cooperation and communication in IJVs; (2) how firms can manage the IJV's evolution, particularly, how to reconfigure its structures and take adaptive actions over time in order to strengthen performance and (3) the degree to which managers perceive the

effectiveness of the IJV". Büchel (2000) takes an evolutionary perspective on joint venture development, emphasizing the convergence and divergence of relationships and highlights both micro- and macro-level driving forces and the conditions under which certain developmental patterns emerge. Therefore, Damanpour *et al.* (2012, pg. 455) argue that "the success of IJVs, once formed, lies in managing the 'execution', not 'formation' issues of partner cultural interaction". They believe that more research is required on issues related to the implementation and management of joint ventures after they have been formed, to increase our understanding of why IJVs succeed or fail. In the sections below, important issues and challenges in IJV management are discussed from the extant literature.

2.10.1.   Learning in IJV

One of the main reasons for many firms to opt for alliances such as IJV is either a primary or derivative goal of learning. Schuler *et al.* (2004) support this view, claiming that an important reason for which IJV is gaining importance is for 'learning and knowledge, sharing and transfer'. Learning depends on the nature of knowledge involved – explicit or tacit. When knowledge is explicit and codifiable (for example, patents) then it can be obtained through international licensing instead of an IJV. Beamish and Lupton (2009) also state that JVs are not the only means to access resources of other firms but they are preferred over other forms of non-equity strategic alliances such as contracting and licensing. IJV is considered to be a better form of combination to share and transfer tacit knowledge which cannot be codified in a licence contract (Schuler *et al.*, 2004). Todeva and Knoke (2005) state an IJV's success in attainment of learning objectives is heavily embedded in an organization's absorptive capacities and tacitness.

- "Absorptive capacity is the ability to acquire, assimilate, integrate and exploit new knowledge, skills, culture and ideas" (Schuler, 2001, pg. 24).
- Tacitness is defined as "knowledge which cannot be easily communicated and shared, is highly personal and deeply rooted in the action and in an individual's involvement with a specific context" (Simonin, 1999, pg.469 in Todeva and Knoke, 2005, pg.14).

Therefore, Schuler (2001) argues that IJVs create distinctive learning opportunities for partnering firms and leverage invisible resources such as management skill, market knowledge or technical capability. This type of tacit knowledge is embedded deeply in organizational routines, people and culture of the organization (Schuler, 2001; Schuler *et al.*, 2004). Kale and Anand (2006) also mention 'resource complementarity' in the context of learning as an important reason for IJV. They explain 'resource complementarity' as partners' contribution of distinct resources and capabilities in the venture and race to learn from each other, as there is an opportunity to learn about resources and skills that a firm lacks from its counterpart in the IJV relationship. However, Todeva and Knoke (2005) caution that this learning can either occur through exploitation of a partner's knowledge in competitive ventures or by learning together synergically for collaborative long term success. Therefore, Baughn *et al.* (2011) argue that even though international joint ventures are a popular way for organizations to expand internationally, still multiple difficulties are faced in this process of collaboration and learning. Schuler *et al.* (2004) also argue that the primary goal of learning and knowledge transfer is very challenging and complex. Kale and Anand (2006) warn that resource complementarity, where both partners think of the JV as an opportunity to learn, can hamper the JV as it would turn the partnership into a ''race to learn'', where each partner tries to outlearn the other. Therefore, learning, trust, control and conflict are all interrelated and interdependent issues in the IJV literature. It is believed that success in an IJV depends on the handling of major issues such as control, trust and conflict in an IJV's learning process (Schuler, 2001). Baughn *et al.* (2011) also argue that trust has been an important issue in IJV research. Schuler (2001) claims that IJV would succeed only if partners increase trust, reduce opportunist behaviour and balance the race to learn. In Schuler's (2001) view, as the trust increases, the need for control in an IJV decreases, as long as partners learn at an equal pace to each other. Inkpen and Currall (2004, 1998) emphasize the relation between trust, control and learning in joint ventures, arguing that after IJV formation, if the initial conditions support continued collaboration, then learning and trust would coevolve and play a central role in evolving alliance dynamics and influence decisions about IJV control. According to Schuler (2001), IJV establishment should be heavily grounded in partners' trust and commitment toward each other. It

is believed that there exists a positive relationship between learning and trust, however; trust and control are inversely related (Schuler, 2001). Schuler (2001) argues that since IJVs are inherently complex, unstable relationships, they require a delicate set of management and organizational processes to handle trust, control and conflict. He believes that many conflict, misunderstandings and problems in IJV are rooted in differences in managerial style. These managerial issues are discussed in the next section.

2.10.2. Managerial Conflict

Conflict can arise between partners/managers and amongst employees because of difference in "relative power, levels of commitment, experience with IJV, goals, size, location of parents and cultural similarity" (Schuler, 2001, pg.20). These differences and conflicts are heavily rooted in managerial behaviours and styles (Schuler *et al.*, 2004; Schuler, 2001). For example, there could be difference in management styles – participatory or autocratic management styles; different risk taking behaviours; different IJV goals and objectives; different business strategies; cultural differences; and different levels of commitment. All these can delay decision making and result in conflict (Schuler, 2001). Beamish and Lupton (2009) believe that IJV are more challenging to manage as they have shared ownership. They argue that combining companies can have dissimilar goals, their management styles could be different and at an international level, additional complexities can surface because of government policies and varied business practices. Damanpour *et al.* (2012) also support this view by stating that in spite of their many strategic benefits, IJVs can be risky and can bring unique management challenges during formation and post-formation phases of partnership processes. Frayne and Geringer (1992) relate managerial behaviours and styles to organizational learning. They state that "behaviours and styles of managers in organizations have significant impact on the ability and willingness of a firm to learn" (Schuler *et al.*, 2004, pg. 109). Along with the race to learn and managerial conflict, another issue affecting IJV success is need for control. Inkpen and Currall (2004) claim that control issues in joint venture are at the heart of management conflict between the partners. Success in an IJV depends upon meeting partners' critical objectives by developing a collaborative process (Baughn *et al.*, 2011). Cui *et*

al. (2002) highlight that such a development process may not only require strategic and cultural fit but would also require a micro level managerial fit at the interpersonal level of interaction. Schuler (2001) claims that, with experience, as partners get to know each other in an IJV, they find better ways to resolve differences and conflict.

2.10.3.   Culture

Iles and Yolles (2002) claim that half of IJVs are unsuccessful, and one of the reasons for failure is cultural difference. Todeva and Knoke (2005) similarly identify incompatible cultures as a major reason for IJV failure. Cyr (1997) argues that diverse cultural backgrounds add complexity to an IJV. Damanpour *et al.* (2012) claim that even though IJVs can fail because of several economic, commercial and strategic factors, most problems in the context of IJV failure have been attributed to organizational cultural differences, i.e. incompatible organizational practices and behaviours. They suggest that conflict is inherent in IJV due to cultural differences and indeed is "natural and inevitable in human interactions" (pg.457). Cyr (1997) further states that critical aspect of success in a cross border combination is whether employees of the local firm feel the foreign partner's commitment and degree of sensitivity towards local culture. Therefore, cultural sensitivity on the part of foreign partners in IJV is very important (Cyr, 1997).

Culture differences have been discussed in the context of both national cultural difference and organizational cultural differences. Damanpour *et al.* (2012) claim that both national and organizational culture can have a significant impact on IJV performance. By referring to Hofstede *et al.* (1990), they define national cultural difference as difference in understanding of values and beliefs, whereas organizational culture difference is difference in organizational practices. Damanpour *et al.* (2012, pg.457) define organizational practices as "commonly accepted organizational routines and actions that have evolved over time, have become institutionalized in the organization, and are considered appropriate in managing the organization and conducting its business".

Organizational cultural incompatibility increases conflict between partners, negatively affects the communication climate between the partners, and increases the

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cost of cooperation (Damanpour *et al.*, 2012). Moreover, when partners in an IJV differ in organizational practices, such as different management styles, it can lead to misunderstandings and conflicting behaviours affecting decision making (Damanpour *et al.*, 2012). Damanpour *et al.* (2012) claim that in the post-formation phase of IJV, success depends on managing national and organizational cultural differences. Beamish and Lupton (2009) argue that although both national and organizational cultural differences can affect a merger or acquisition, they are more likely to affect a joint venture, as both the partners' firms still retain their separate managements alongside the joint venture. Child and Faulkner (1998) argue that culture can either create barriers in the process of organizational collaborations or can act as a valuable resource for these strategic partnerships due to its embodied knowledge. Damanpour *et al.* (2012) emphasize that cultural similarity between organizations positively affects interaction and cooperation between partners. Beamish and Lupton (2009) also support this, stating that IJVs with similar culture have a higher probability of success. Damanpour *et al.* (2012) recommend integration of acculturation strategies aligned with open communication, cooperative problem solving, and non-dominant conflict resolution for IJVs success. Baughn *et al.* (2011) claim that in order to achieve a good 'fit', differences in strategies, culture, and capabilities need to be addressed. Damanpour *et al.* (2012) recommend biculturalism, which encourages communication between partners as it promotes partners to merge their parents' organizational practices into a common practice for joint venture. They propose that a greater level of biculturalism encourages effective communication and greater cooperation and conflict resolution between partners.

2.10.4.   Human Resource Management

Schuler (2001), Schuler *et al.* (2004), Baughn *et al.* (2011) and Child and Faulkner (1998) claim the importance of effective human resource management (HRM) as critical for IJV's success, while Gong *et al.* (2005) notes that HR issues can lead to failure of IJV. HRM functions must address control, trust, and conflict issues evident in the IJV literature and establish mechanisms to enhance trust and IJV performance (Iles and Yolles 2002; Inkpen and Currall, 2004). Most importantly, Damanpour *et al.* (2012, pg.471) propose that "managers should pay as much attention to the

implementation and management of IJVs as they often do to its formation", and that success depends on managing the human side as well as the strategic side. According to Gong *et al.* (2005), there is a systemic relationship between human resource management and IJV performance, as venture employees play an important role in determining the extent to which resources and tasks are prioritized and directed towards attainment of IJV objectives. For this reason, they highlight the responsibility of HR in building and motivation of human capital. Schuler (2001) similarly highlights that in context of IJV there are multiple IJV organizational issues which are also HR issues. They discuss organizational and individual level organizational/HR issues in context of IJV (see Table 2.3).

Organizational-level Issues
Parent to Parent relationships
Parent to IJV relationships
IJV-environmental context relationship
Parent Characteristics
Individual/Group-level Issues
Employees learning and sharing relevant knowledge
Employees having the competencies for the IJV
Employees engaging in the appropriate behaviours and attitudes
Employees with the needed levels of motivation for performance and for commitment to the organizations
Individuals attracted to join the IJV

Table 2.3 – Categories of Organizational/HR issues in IJV (Schuler, 2001, pg.7)

Baughn *et al.* (2011) favour a high level of autonomy in context of HR functions in the IJV. They claim that the role of HR in IJV is critical in terms of staffing and motivating people and to enhance trust between partners. One way to achieve this is through communication which is discussed next.

2.10.5. Communication

Communication plays a very important role in IJV. Managing communication is critical as IJV involves a high level of communication between managers and employees of combining partners (Iles and Yolles, 2002; As-Saber *et al.*, 1998). More importantly the strategic intent of the IJV needs to be communicated to employees (Schuler, 2001). One reason for the importance of communication is its role in organizational learning. For example, the purpose of organizational learning can be effectively accomplished

when strategy is effectively communicated (Pucik, 1988). Therefore, channels of communication play a critical role for learning and to communicate any change in expectations from the IJV (Cyr, 1997). Schuler (2001) also claims that channels of communication should exist to assist the flow of knowledge. Makhija and Ganesh (1997) state that greater channels of formal and informal communication help partners learn about each other effectively. Cyr (1997) claims that effective communication and learning from partners in a supportive culture results in a greater amount of shared responsibility in an IJV and learning is jeopardized when communication problems persist. She further states that level of communication between IJV partners and quality of training facilitates learning and determine whether or not employees are satisfied working with the venture.

Another perspective on communication is offered by Damanpour *et al.* (2012, pg.456), who state that "communication is a social process of broadest relevance in the functioning of any group or organization" (Katz & Kahn, 1978), and link it with two other key processes - cooperation and conflict resolution, as essential processes for the effectiveness of an IJV. They claim these processes to be interrelated; each influencing the other, and together representing the interaction dynamics between IJV partners. They believe organizational cultural differences might stand in the way of effective communication processes. Incompatible organizational practices restrict the communication climate of an IJV, leading to different expectations and mismatch in interaction processes needed for the IJV's success (Damanpour *et al.*, 2012). In contrast, organizational cultural similarity has a positive effect on conveying a sense of identity to IJV members and motivates partners to take a more cooperative approach in times of conflict resolution (Damanpour *et al.*, 2012). A similar link between communication, co-operation and conflict management is implied by Gong *et al.* (2005), who state that lack of communication creates a buffer between parent and joint venture subsystem, delays decision making, slows down operations and leads to misunderstanding of directives and lowered human capital efficiency. Damanpour *et al.* (2012) highlight that communication processes are especially challenging in an IJV because partners from different cultures have different frames of reference, different ways of expressing and interpreting meanings. Schuler (2001) claims communication

influences cooperation, trust, conflict resolution and issues of control in IJVs. For this reason, Damanpour *et al.* (2012) argue that effective communication is essential in an IJV to share information and to update and clarify misunderstandings. Baughn *et al.* (2011) argue that establishment of a shared vision, enhanced communication and conflict resolution are key challenges for joint venture success. Damanpour *et al.* (2012, pg.471) recommend, "IAS (integration acculturation strategy) aligned with open communication, cooperative problem solving, and non-dominant conflict resolution" in order to foster satisfactory IJV outcomes over time. Brouthers and Bamossy (2006) also claim open communication, cooperative problem solving and mutual adaptation as characteristics of high-performing IJVs. An effective IJV management in its post-formation stages depends upon the "coordination capabilities" of the IJV partners (Damanpour *et al.*, 2012; Brouthers & Bamossy, 2006).

2.10.6.   Summary

This section has summarised various important challenges in IJV management. In summary, IJV literature highlights the role of HRM in dealing with people, culture and communication issues. It is highlighted that managing IJVs is difficult because of cultural differences that make communication, decision making and managing people more challenging (Beamish and Lupton, 2009). Schuler (2001) claims that unbalanced control, lack of trust, asymmetrical learning, cultural differences and conflict among IJV members are the most important issues which jeopardize an IJV relationship, causing failure. Therefore, the important organizational level issues highlighted in IJV literature are the race to learn between partners, *culture* difference, and lack of trust, control and conflict between partners (Schuler, 2001; Schuler *et al.*, 2004; Iles and Yolles, 2002; Cyr, 1997; Todeva and Knoke, 2005). Brouthers and Bamossy (2006) highlight three important barriers to the success of IJV: 1) difference in national culture which affects communication between partners 2) creation and maintenance of trust between partners 3) joint venture control processes and cooperation between partners and reduced resistance to change. They argue that failing to overcome any of these barriers can lead to eventual failure of IJV. On the basis of the extant literature, human resources, culture and communication issues demand attention along with other organizational level financial and strategic issues for the success of an IJV

(Schuler, 2001; Damanpour *et al.*, 2012; Kanter and Corn, 1994; Brouthers & Bamossy, 2006).

2.11. Reflection on M&A and IJV Literatures

In the above sections, the review of the literature started with a broad focus on organizational change and strategic alliances literatures. The focus of the literature was then narrowed down to strategic alliances such as M&A and IJV as organizational change events. The main concern common to organizational change initiatives is the high failure rate (Nasim and Sushil, 2011; Burnes and Jackson, 2011). This problem was also found to be evident in major organizational changes such as M&A and IJV. After acknowledging the important reasons for M&A and IJV activity in the current economic scenario, the existing literature was further investigated to study the main issues and challenges in M&A and IJV management, in sections 2.9 and 2.10. In summary, the main challenges identified in the context of M&A are people and culture-related (Schuler and Jackson, 2001; Bastein, 1987; Buono and Bowditch, 1989; Cartwright and Schoenberg, 2006). In the context of IJV failure, the main challenges were mainly asymmetrical learning, unbalanced control, lack of trust, managerial conflict and cultural differences (Schuler, 2001; Schuler and Jackson, 2001; Damanpour *et al.*, 2012; Beamish and Lupton, 2009; Baughn *et al.*, 2011). A very important issue which is common to both IJV and M&A is cultural difference (Schuler *et al.*, 2004). Beamish and Lupton (2009) also emphasize that managing IJVs is complicated because of both national and organizational cultural differences. Both bodies of literature have recommended a focus on people (especially human resource management in IJV literature), culture and communication (Wagner and Hilal, 2014; Bastein, 1987; Buono and Bowditch, 1989; Schuler 2001; Schuler *et al.* 2004; Baughn *et al.* 2011; Child and Faulkner, 1998; Schuler and Jackson, 2001; Schweiger and DeNisi, 1991; Balle, 2008; Iles and Yolles, 2002; As-Saber *et al.*, 1998). Culture is an abstract and hard to define concept, but it can be addressed through people, language, practices and communication embedded in an organization. However, Kanter and Corn (1994, pg.19) critique cultural issues, stating that "cultural heterogeneity presents a conspicuous target for employees to point to when looking for an explanation to their problems". They suggest that actions such as uncertainty

reduction, open communication channels and viewing the combined organization as one entity are important. Therefore, the importance of communication in M&A and IJV management cannot be stressed enough.

Thus, it is agreed that effective communication can encourage people to adapt to a critical organizational changes (in this case; mergers or acquisitions or joint ventures) which can help improve employee retention and motivation. However, Powers (1987) findings illustrated that significant level of key M&A personnel still leave in spite of effective communication procedures. Cornett-DeVito and Friedman (1995) also challenged the repeated claims present in the literature as to the importance of communication during M&A. They argue that communication should be viewed as a global concept instead of a set of precise tools or specific activities needed to remediate particular contingencies. They admit that "mergers are important, problematic, and unique change events on which a range of communication activities have some effect but argue that variability among the kinds and contexts of mergers makes relating behaviours and effects very difficult" (Cornett-DeVito and Friedman , 1995, pg.67). Their research was conducted in three phases to find out difference in managerial communication in more or less successful mergers. Phase 1 of the study developed hypotheses for influence of managerial communication on merger success. These hypotheses were tested in Phase 2, and in Phase 3 contingencies were identified which have an influence on communication needs of acquired employees. Since the results did not support any of the hypotheses, the study raised questions regarding the repeated claims of communication being critical for M&A success. However, the closer examination highlighted two main points – 1) "the relationship between communication and merger success is more subtle and complex than the overall survey results indicated" 2) "communication needs change over time" (Cornett-DeVito and Friedman, 1995, pg.60). Contrary to these insights, they observe, "many merger analysts often refer to communication as if it were a simple, unitary operation, not the complex form, multifaceted process that it is" (Cornett-DeVito and Friedman, 1995, pg.4). In the context of IJV, Cyr (1995) argues that communication systems in an IJV should be as complex as the IJV process itself. Therefore, the main problem with communication is that one cannot have a one-size-fits-all

communication approach for such enigmatic and complex changes as M&A and IJV. All communication cannot be planned for each stage of M&A and IJV. Moreover, the importance of communication does not begin and end during the post-integration phase but it is an on-going, two-way process and should be consistent with and support the everyday culture of the organization.

Cartwright and Schoenberg (2006) after thirty years of M&A research highlight scope for further research to link M&A performance models to bridge the gaps between finance and strategy literature and behavioural literatures such as human resource and organizational studies. They argue that one of the reasons for M&A failure is because of the possibility that existing M&A research is incomplete. They support this claim by referring to the research conducted by King *et al.* (2004), which involved meta-analysis on the determinants of M&A performance from finance and strategy literature and concluded with an implication suggesting "changes to both M&A theory and research methods may be needed." Second, research conducted by Stahl and Voight (2004) which involved meta-analysis of the impact of cultural differences on M&A performance provided similar conclusions. Results from both the studies identified a gap and uncertainty in the existing literature in terms of the variables which govern post-acquisition performance.

A substantial number of studies examine the strategic and financial aspects of M&A and IJV, but the high failure rate is still very evident in both M&A and IJV (see section 2.7). Fewer studies take into account the human, cultural and communication factors, as these are considered of lesser importance when compared with financial, strategic and legal aspects (Wagner and Hilal, 2014). In fact, however, human, cultural and communication factors play an important role along with legal, financial and strategic aspects in the context of M&A and IJV (see section 2.9 and 2.10). Therefore, recent studies have started to focus on more psychological and behavioural aspects of M&A and IJV. It is important to acknowledge that employees exercise free will in interpreting and reacting toward a change, which can have a significant impact on the outcome of change. Also, factors such as communication and cultural change have a significant impact on how employees react to these changes. Hence, the outcome of

M&A and IJV cannot be known in advance, due to the inherent complexity of human behaviour.

The overall traditional M&A and IJV research has focused on simple relationships between universally important variables such as communication or culture or people and success and has provided simple linear solutions such as communication. Wagner and Hilal (2014) and Seo and Hill (2005) support Hogan and Overmyer-Day (1994) in the criticism that most M&A researchers have studied a simple relationship between important variables, such as communication or culture and success. Bengtsson and Larsson (2012) also found that many M&A studies have studied one aspect of M&A such as communication, although lengthier M&A studies with more cases discovered more integration dimensions. This is also true in the case of IJV as well, where linear relationships are studied between aspects such as trust, conflict, communication, human resource management and culture. Because of this, the inherent complexity is overlooked. Both IJV and M&A literature emphasizes the importance of communication and human resource and people management, but the complexity surrounding human aspects of communication and people's reactions to these changes has not been given enough attention (especially in the IJV literature).

It is also important to acknowledge very few organizations opt for just one of these strategic alliances in their life span, for example - only one merger, an acquisition or a joint venture. Organizations generally choose multiple applications of these strategies in their journey for growth and expansion. Therefore, even though there exist many isolated studies on merger, acquisitions and joint ventures, but a single study of merger, acquisition and joint venture under a single organizational setting in a pharmaceutical industry in India is rare. This research attempts to add to the understanding of inter organizational change management practices of M&A and IJV within the context of an emerging economy like India and in a highly dynamic pharmaceutical engineering company (see Chapter 5).

Armenakis and Harris (2009, pg. 135) claim that "organizational change is very complex and not to be taken lightly". An overall review of M&A and IJV literature has emphasized that these changes are complex, ambiguous, confusing to manage,

produce unexpected outcomes and have considerably high failure rates (Cornett-DeVito and Friedman, 1995; Bhal *et al.*, 2009; Bastein, 1987; Schuler, 2001; Todeva and Knoke, 2005; Cyr, 1997). Therefore, the complexity surrounding planning, control and predicting human behaviour, cultural changes and communication issues in IJV and M&A makes both these changes an appropriate choice for this research. At an organizational change level, Georgiades and Georgiades (2014) argue that it is the expectations of the change and fear of future survival, rather than the actual change itself, that cause stress. In this research, M&A and IJV are therefore viewed as organizational level changes which involve employees' expectations from the change and fear for survival. Review of both M&A and IJV literature suggested that human, culture and communication aspects play a vital role in these critical organizational changes (Chun, 2009; Cornett-DeVito and Friedman, 1995; Bastein, 1987; Schweiger and DeNisi, 1991; Schuler, 2001; Todeva and Knoke, 2005; Cyr, 1997) along with other financial, legal and strategic aspects. However, it is not possible for every detail of human, culture and communication activities during a change to be planned beforehand. Moreover, employees can interpret changes in widely different ways, which influences the change outcomes, making it difficult to plan, predict and control.

One powerful approach which is increasingly being used to understand managing dynamic organizational changes is Complexity Science (see Chapter 3). Even though system researchers have applied some complexity and system science concepts to both IJV and M&A separately (Clayton, 2010; Mitleton-Kelly, 2006; Iles and Yolles, 2002), in-depth case study research using a complexity lens to better understand patterns of behaviour during both M&A and IJV process is missing. This research uses the term 'complexity lens' to imply the use of complexity science theories, principles and approaches. This research does not aim to investigate if M&A and IJV strategies at Organization ABC (i.e. the case study organization – see Chapter 5) were a failure or a success but instead proposes to understand M&A and IJV change management practices and emergent outcomes through the lens of complexity. The contribution to organizational change theory is attempted by empirically testing the extent to which strategic alliances such as M&A and IJV can be explained in terms of complexity theories. In spite of the popularity of complexity theories and their recent applications

in organizational research, very little research has empirically attempted to view M&A and IJV through insights of complexity theories. Moreover, there is very scarce research which has looked at these complex change phenomena under a single organizational setting in an emerging economy like India, in a highly dynamic pharmaceutical engineering company.

2.12. Conclusion

This chapter attempted to approach the research objective: To conduct in-depth review of M&A and IJV literature to explore challenges in M&A and IJV management and to identify gaps in the literature (RO1). The chapter started broadly to discuss the various form of strategic alliances before moving into the discussion on M&A and IJV. The chapter acknowledged the high M&A and IJV failure rate in the literature and it systematically identified the challenges in M&A and IJV management. People, culture and communication-related challenges were identified as the neglected areas in the literature where contribution to knowledge can be made and this made these aspects as the focus of this research. It was identified that the overall traditional M&A and IJV research focused on simple relationships between universally important variables such as communication or culture or people and success and recommended linear solutions such as communication. But the complexity around managing people, culture and communication challenges highlighted the need for an alternative lens that can embrace the inherent complexities of M&A and IJV. This led to the endeavour to conduct an in-depth review of complexity management literature in the next chapter.

3. Complexity Theories

3.1. Introduction

The problem identification (see Chapter 1) and a critical review and reflection of M&A and IJV literature (see Chapter 2) along with the identification of the research boundary have suggested the need for an alternative lens to understand the inherent complexity of M&A and IJV. Hence, the purpose of this chapter is to review complexity management literature with a main focus on organizational changes such as M&A and IJV. This chapter is central to the whole thesis as it identifies the primary research question and objectives for this research project. The chapter begins with a general discussion on complexity science theories and principles before moving into a discussion on applications of complexity theories to organizations to approach the research questions. The focus of the chapter is then narrowed to organizational change and complexity theories with particular focus on dissipative structures approach. Following the review so far, the chapter explains why complexity theory approach has potential for studying M&A and IJV. The chapter then lists the research questions and the linked research objectives. At this juncture the secondary research question demands attention which inquires – "What philosophical underpinnings need to be taken care of in applying complexity theories to management research?" (RQ2). This is discussed in section 3.5, which acknowledges the competing paradigms within complexity sciences and the various paradigm debates in applying complexity sciences to study social sciences. The chapter ends with a justification of the choice of a critical pluralist philosophical stance to approach this complexity research project and to answer the research questions.

3.2. Complexity Science Theories and Principles

Complexity theory serves as an umbrella term for a number of theories originating from the fields of meteorology, biology, physics, chemistry and mathematics (Burnes, 2005, 2004). Hendrick (2009) agrees that there does not exist one theory called complexity theory but a collection of several theories which have come from natural sciences. Hence, Burnes (2005) takes Black's (2000) lead in using the term 'theories' rather than theory to acknowledge the diversity of viewpoints in complexity research.

Hammer *et al.* (2012) highlight that the terminology used has also not received a general consensus yet in the complexity community. For example complex adaptive systems are variously referred to as complex systems in general by Cilliers (1998), complex responsive processes by Stacey (2003), complex evolving systems by Mitleton-Kelly (2003) or intelligent complex adaptive systems (ICAS) by Bennet and Bennet (2004). Whilst these complexity theorists claim there are differences between these terms, the most common term is 'complex system', which will be used for this research.

Richardson and Cilliers (2001, pg.8) argue that 'an agreed definition of complexity is still not available' and moreover, it is much more difficult to answer the question 'what is complexity science?' The whole of volume 3 issue 1 in 2001 of a journal called 'Emergence' was dedicated to answering this particular question, which gave rise to ten different articles, all beginning with 'What is complexity science?' and offering a variety of answers ranging from the highly technical, to the philosophical and ethical. However, as stated by Richardson and Cilliers (2001), most of the definitions available are of a complex system which is defined as "a system that is comprised of a large number of entities that display a high level of non-linear interactivity" (pg.8). Burnes (2005, pg.77) states, "Complexity theories are concerned with the emergence of order in dynamic non-linear systems operating at the edge of the chaos". In other words, complexity theories are concerned with constantly changing systems where cause-effect laws do not apply (Stacey, 1995). The order in such systems is unpredictable. However, irregular but similar patterns emerge through self-organization processes and order-generating rules (Burnes, 2005). Nicolis and Prigogine (1989, pg.8), however, argue that "It is more natural, or at least less ambiguous, to speak of complex behaviour rather than complex systems. The study of such behaviour will reveal certain common characteristics among different classes of systems and will allow us to arrive at a proper understanding of complexity".

Burnes (2005) describes three theories under the complexity theories umbrella – complex adaptive systems (CAS) theory (Goodwin, 1994; Stacey, 2003), chaos theory (Lorenz, 1993) and dissipative structures theory (Prigogine and Stengers, 1984; Prigogine, 1997). A CAS is defined as "a set of interdependent agents forming an

integrated whole, where an agent may be a person or an organization" (Palmberg, 2009, pg.484). Stacey (2003) states that CASs use an agent-based approach, which formulates the self-organizing nonlinear interaction for each local entity in the system which produces population wide pattern. A CAS goes through self-organization to accommodate changes to the stimuli in its environment (Clayton, 2010). Thus, the behaviour of the entire system is fed back to the individual agents, modifying their behaviour. The evolution continues as the agents adapt in their effort to survive in the new environment, as do the other agents of the CAS, producing overall population wide patterns (Holland, 1975). Moreover, Stacey (2003) discusses two types of CAS: homogeneous and heterogeneous. In homogeneous CAS, "each agent is the same as every other agent and there is no variation in the way they interact with each other" (Stacey, 2003, pg.200). Referring to the Boids simulation programme by Reynolds (1987) depicting flocking behaviour of birds, Stacey (2003) states that in such systems emergence is the consequence of local interaction between the agents. These systems always have one attractor (e.g. flocking). Hence, these systems move from one pattern of behaviour to another given behavioural pattern and lack the internal capacity of spontaneous evolution and novelty. However, in heterogeneous CAS, population wide patterns emerge as a result of interaction between diverse agents. It is the agent diversity which helps these systems to show the properties of spontaneous evolution to new unknown novel forms. Examples of such systems are heterogeneous CAS and Allen's complex evolutionary systems (a concept further elaborated by Eve Mitleton-Kelly as complex evolving systems (CES)).

Chaos theory is a study of complex, nonlinear, dynamic systems. It is derived from the work of Lorenz (1993) work on weather systems. Chaos theory has the ability to illustrate how simple set of deterministic rules can lead to unpredictable patterns (Levy, 1994). Chaotic systems never return to the same spot twice (Wheatley, 1992; Levy, 1994). Wheatley (1992) highlights that chaos is the last state before the system enter into the state of random behaviour without any order. Chaos theory highlights that due to non-linearity, slightest variations can lead to major catastrophic outcomes (Wheatley, 1992).

Dissipative structures is a Noble prize winning work of Prigogine and his colleagues (Prigogine and Stengers, 1984). These nonlinear dynamic systems dissipate unless some form of energy is provided to them from the outside (Burnes, 2005). Entropy is generally associated with deterioration of order and increase in the amount of energy into a system is associated with creation of order. But Prigogine's work showed that under specific conditions order can emerge, rather than deteriorate, from the dissipation of energy (Marion, 2008). Such structures are referred to as 'dissipative structures'. An example is movement of liquids as a result of heat, i.e. convection (Burnes, 2005). Dissipative structures exhibit a logic of non-linearity, unpredictability and simultaneous self–organization at 'far-from-equilibrium' state to produce patterns which are highly unpredictable from their previous states. Anderson (1999) also states that a dissipative structure is an organized state when a complex system is maintained at a far from equilibrium condition by continuous injection of energy. Juarrero (1999) states that dissipative structures evolve through irreversible phase changes producing reorganised systems that are better adapted to current new conditions. Hence, she concludes that "dissipative structures are also adaptive systems that show how, over time, complex order emerges from disorder" (pg.122). According to Stacey (2003), the main differences between CAS, chaos and dissipative structures theories are that chaos and dissipative structures mainly construct macro level mathematical models of the system, whereas CAS uses agent-based approach seeking to formulate individual level rules of interaction to explain the system level behaviour.

Burnes (2005, 2004) further identifies three central aspects of complexity theories: the nature of chaos and order, edge of chaos and order-generating rules. Tetenbaum (1998) states that from a complexity perspective, chaos can be viewed as an unfolding irregular but similar pattern of behaviour in complex, unpredictable and orderly disorder forms. Stacey (2003) identifies three types of order-disorder in complex systems: stable equilibrium, explosive instability and bounded instability. An overly stable system will ossify and die (Burnes, 2005) and an overly unstable system may get out of control and destroy itself, as in the case of cancer (Frederick, 1998). However, at the edge of chaos, also referred to as 'far-from-equilibrium', is the state of

the system under bounded instability conditions. It is argued that it is in this state that creativity, growth and optimal self-organization take place (Frederick 1998; Jenner 1998; Kauffman 1993; Lewis, 1994 in Burnes, 2005). However irregular complex systems are, similar patterns emerge through self-organization processes and order-generating rules (Burnes, 2005) which Burnes (2005) argues are co-dependent. New order-generating rules create self-organization and self-organization requires transformation of order-generating rules. Order-generating rules are also interchangeably referred to as rules of interaction (Mitleton-Kelly; 2006; Burnes, 2005; Clayton, 2010). It is the concept of order-generating rules that explains "how complex, non-linear, self-organizing systems manage to maintain themselves at the edge of chaos, even under changing environmental conditions" (Burnes, 2005, pg. 80).

Along with complexity theories, there also exist several lists of characteristics for complexity sciences applications to the management research (Hendrick, 2009), for example, CAS principles by Hammer *et al.* (2012), three principles of co-evolving systems in Volberda and Lewin (2003), ten principles of complexity by Mitleton-Kelly (2003), nine basic concepts by Clemens (2002), the self-organizing principle by Eoyang and Olson (2001), Ramalingam *et al.* (2008) refer to ten basic concepts divided in three categories, and three qualities of positive self-organization by Lichtenstein (2000). However, Hendrick (2009) argues that these lists are overlapping and key features remain common across all the lists, but definitions of some terms vary. She further notes that a "significant difference is the extent to which concepts are seen as bound together in a theory or relatively autonomous to be applied when required" (pg.18). For example, she refers to Ramalingam *et al.'s.* (2008) proposition that the concepts can be used flexibly, which contradicts with Mitleton-Kelly's (2003) proposal that deeper understanding of complex systems can be gained by considering several characteristics, whereas Walby (2004) considers complexity theory as a theoretical and conceptual tool to develop a version of hybrid complexity theory with social science. Mitleton-Kelly (2003) provides the following Figure 3.1, which is not an attempt to map across disciplines but simply to illustrate how principles of complexity have been drawn from the natural sciences.
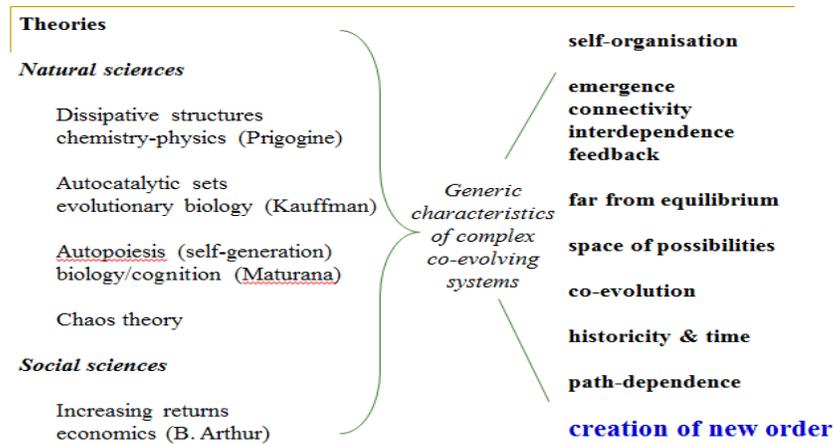
Figure 3.1 – Generic Characteristics of Complex Co-evolving Systems (Mitleton-Kelly, 2003, pg.24)

Hammer *et al.'s* (2012, pg. 914) extensive work on complex systems characteristics provides a rich summary of most of the characteristics of CAS (or complex systems) with the help of the diagram below. This summary has been drawn from the work of many prominent authors in the field of complexity. They chose insights from Cilliers, Stacey and Mitleton-Kelly for "their empirical and theoretical work in applying CAS theory to organizations" (pg.913).
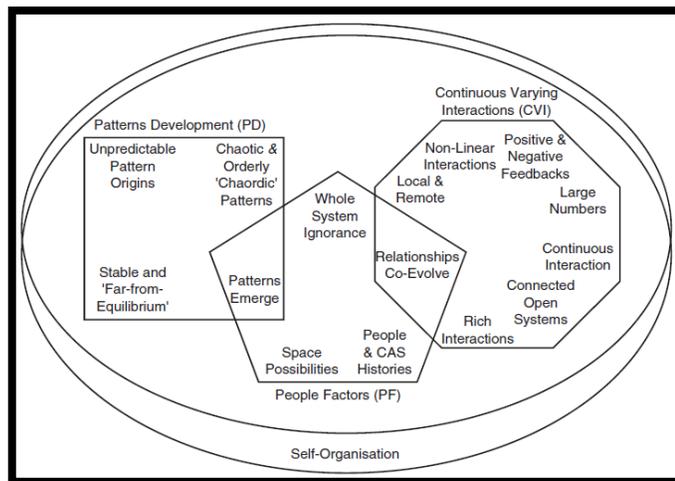
Figure 3.2 - Sixteen Characteristics of Complex Adaptive Systems (Hammer *et al.*, 2012, pg.914)

Figure 3.2 divides complexity characteristics into four facets, namely, continuous varying interactions (CVI), pattern development (PD), people factors (PF) and self-organization (SO). Self-organization comprises all the four facets and forms the

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backbone of complex systems. Hammer *et al.* (2012) also highlight from the diagram that some characteristics overlap. For example, patterns emerging from PD and relationships evolving from CVI are also part of the people factors facet. In addition, they bring to notice that various levels of the firm can be viewed as CAS and there can be an enormous number of entanglements between characteristics and levels, within characteristics, within levels, between each of these aspects and environment and so on. All these interactions increase the overall complexity of CAS. They propose that the CAS lens, which is mainly based on the 'people factors' can aid in the understanding of various characteristics, facets and their relationship.

3.3. Applications of Complexity Theories to Organizations

Weaver (1948) and Boulding (1956) were the very first authors to consider 'complexity' academically for the development of science (Hammer *et al.*, 2012). Boulding (1956) introduced his conception of a nine-level 'Hierarchy of Complexity' 'the Social Organization' as the eighth, i.e. is the second to last most complex level (mainly referring to industrial/non-profit organizations), whereas the most complex level is 'the transcendental systems' (Hammer *et al.*, 2012). Weaver (1948), moreover, drew attention toward a third category of problems which were no longer the 'problems of simplicity' comprising few variables nor were they problems of 'disorganized complexity' explaining average behaviour with the help of advanced statistical techniques. In his opinion,

"These new problems, and the future of the world depends on many of them, requires science to make a third great advance, an advance that must be even greater than the nineteenth-century conquest of problems of simplicity or the twentieth-century victory over problems of disorganized complexity. Science must, over the next 50 years, learn to deal with these problems of organized complexity." (pg.540)

It is this middle region which shows "the essential features of organization" (Weaver , 1948, pg.539) and the future of the world depends on these problems of organized complexity, which are the type of problems addressed in social sciences (Hammer *et al.*, 2012). 'Complexity' can be considered as an attractive metaphor for organizations and complexity science offers various concepts for analysis of organizations as

complex systems (Blandin, 2008; Palmberg, 2009; Clayton, 2010). Burnes (2005, pg.80) claims that "complexity theories have an attractive elegance, especially for those of us who seek to understand the complexity of the organizational world". The interest in this management domain currently includes organizational change and transformation (Mitleton-Kelly, 2011; Clayton, 2010; Eoyang and Olson, 2001; Macintosh and MacLean, 1999; Lichtenstein, 2000; Houchin and MacLean, 2005; Chiles *et al.*, 2004*; Plowman *et al.*, 2007), innovation (Mitleton-Kelly, 2011), strategy development (Hammer *et al.*, 2012; Brown and Eisenhardt, 1997), process improvement (Vidgen and Wang, 2009) etc. Complexity theorists working under these domains are driven by their explicit or implicit paradigmatic choices, for example, the pragmatist approach adopted by Eoyang and Olson (2001), objectivism proposed by Mitleton-Kelly (2003), interpretivism by Hammer *et al.* (2012) and Vidgen and Wang (2009). The application of complexity theories to organizations is relatively new (Hammer *et al.*, 2012; Clayton, 2010; Phelps and Hase, 2002; Burnes, 2005) and stands on a challenged ground. Therefore, it is important to acknowledge two important aspects in this context. Firstly, complexity theories are still in their developmental stages and are based on a contested ground within the natural sciences themselves; hence, their translation to the social sciences cannot be free from philosophical arguments and debates (Burnes, 2005). These philosophical debates are addressed in section 3.5. Secondly, as correctly stated by Burnes (2005, pg. 81), "Each author has their own perspective on what complexity is, ranging from Lewis (1994) to the clearly well-considered and extensive Stacey (2003)". He recommends using the latter group in reviewing the literature on complexity and organizations, mainly complexity and management. However, these management and organization theorists are not experts from the scientific fields from where the complexity theories emerged (Burnes, 2005). For this reason, as noted, by Wheatley (1992), the first step in the application of complexity theories to organizations is an 'act of faith' in their validity and transferability from the natural to the social sciences (Burnes, 2005, pg. 81). However, many authors have argued that "organizations are complex, non-linear systems whose members (agents) can shape their present and future behaviour through spontaneous self-organizing which is underpinned by a set of simple order-generating rules" (Burnes, 2005, pg. 81). Stacey (2003) also argues that like complex

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systems, organizations also need to transform continuously in order to survive in an ever changing environment. Hence, these authors support the view that organizations can be viewed as complex systems (CAS or CES). The seminal works in the complexity and management literature are discussed in section 3.3.1 below.

3.3.1. Complexity and Management Research Approaches

The current literature indicates that there are two dimensions in which researchers try to apply complexity theories to study complex organizational phenomena. One is through "observation", where the research approach is basically to gather information through research method/methods (especially - case studies, interviews etc.) and then the researcher appreciates complexity theories through an appropriate paradigm lens in the context of their research (Hammer *et al.*, 2012; Clayton, 2010; Vidgen and Wang, 2009; Lauser, 2010). The second is through "intervention". Here, the researcher assumes that the phenomena is complex and appreciates various complexity characteristics at work. The researcher's task is then to provide valuable insights to the organization through an intervention (Mitleton-Kelly, 2006; Eoyang and Olson, 2001). There exist a few commonalities in both these research approaches – 1) both approaches view organizations as complex systems; 2) emphasize understanding of complexity theories and characteristics; 3) both propose appreciation of complexity theories and characteristics in the complex phenomena. It is just that the second research design goes a step further as it not only appreciates complexity theories and characteristics but also takes an opportunity to identify points of leverage to support managers in order to create an enabling environment for self-organization (Mitleton-Kelly, 2003, 2006, 2011; Eoyang and Olson, 2001). However, these intervention (action research-oriented) approaches to complexity management research are critiqued by some complexity proponents. Stacey (2003) critiques approaches which identify points of leverage by claiming that such notions view managers as outside the system and not as participants in a complex system.

Lichtenstein (2000) talks about positive self-organization, stating that there are three important qualities for positive self-organization – self-referencing, increased capacity and independent organizing and a culture of trust and commitment, which motivates

and helps emergence of positive self-organization (Lauser, 2010; Lichtenstein, 2000). Mitleton-Kelly (2011) claims presence of an enabling organizational environment can help positive self-organization. These assertions assume that self-organization is always positive and in favour of overall organizational performance. Stacey (2003) argues that such approaches "view self-organization as some new form of behaviour an individual can choose rather than a different way of understanding how people have always behaved" (pg. 223). This research accepts Stacey's (2003) claim and argues that self-organization is how people have always behaved. Hence, it can be either positive or negative. Buckle-Henning (2008, pg.734) also states that self-organization is "self-expressive" and provides "informative, real-time data about the state of an organization". However, taking Stacey's (2003) and Buckle-Henning's (2008) lead, this research supports the claim that self-organization is a neutral term and can be both positive and negative for organizational performance. Therefore, there exists two kinds of self-organization – positive and negative in post-integration phase, such as in, M&A and IJV.

Some examples of "observation" and "intervention" complexity research approaches are discussed below. The authors mentioned are selected for their empirical work in investigating or applying complexity theories to organizations (Vidgen and Wang, 2009; Clayton, 2010; Lauser, 2010; Houchin and MacLean, 2005; Eoyang and Olson 2001; Mitleton-Kelly, 2003, 2006, 2011; MacLean and Macintosh, 2011; Shaw, 1997; Hammer *et al.*, 2012; Lichtenstein, 2000; Chiles *et al.*, 2004; Plowman *et al.*, 2007).

As discussed above, one common research approach in the field of complexity management is through "observation". For example, Vidgen and Wang (2009) used an interpretive case study research involving interviews to develop an agile software development framework on the basis of three principles of co-evolving systems, namely, match co-evolutionary change rate, maximize self-organizing and synchronize exploitation and exploration as proposed by Volberda and Lewin (2003). Clayton (2010) adopted a grounded theory approach to study individual level dynamics of M&A using CAS. The research involved semi-structured interviews with twenty-three M&A practitioners comprising five CEOs, nine senior managers, five middle managers,

two non-managers and two consultants. Lauser (2010) conducted a one-day workshop adopting a focus group approach comprising ten participants who had experienced a merger in the previous eight years. The workshop consisted of three major parts: Introduction and Presentation; Group work in small focus groups and Presentation of focus group findings. In the focus group session, participants discussed post-integrations from different perspectives such as leadership, people and process. In a brain storming exercise, participants discussed success factors or drawbacks with the leadership requirements during various post-integration stages such as pre-merger, immediately after announcement, short, medium and long term. Common findings and comparisons between different perspectives were drawn at the end of the workshop. Hammer *et al.* (2012) provide additional insights, both adding to the development of the CAS lens and informing the strategy development process using a CAS lens adopting a case study approach. Lichtenstein (2000), Macintosh and MacLean (1999), Houchin and MacLean (2005), Chiles *et al.* (2004), and Plowman *et al.* (2007) all have used case study research approach to study organizational change using complexity theories.

The "intervention" or action research approach to complexity involves a range of research designs. For example, Eoyang and Olson (2001) working especially with the self-organising principle discuss change in a CAS and claim three factors, 'Containers, Differences and Exchanges' (CDE), influence the placement, shape and power of patterns that emerge in a CAS. Their intervention approach is based on three conditions for self-organizing:

1) Containers – These set the boundary of a self-organizing system. They could be physical (geographical), organizational (departments, functions), behavioural (identity, culture) or conceptual (purpose, rules, budgets).

2) Differences – Eoyang and Olson (2001) state that significant differences determine the primary pattern that would emerge during the process of self-organization. Hendrick (2009) states that differences are the potential sources of 'energy' released by choosing particular attributes as the base for the

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difference. Examples of such differences are power, level of expertise, gender, cost etc.

3) Exchanges – These comprise interactions between the agents involving exchange of resources such as information, money, energy etc. The agents get transformed as these resources flow. It is these patterns of change that lead to overall system adaptation.

In the context of self-organizing dynamic systems, Eoyang and Olson (2001, pg.18) state, "containers hold the system, the differences focus pattern-forming energies of the system and transforming exchanges establish both stability and the potential for change at the individual and organization level simultaneously". They state that these three conditions are interdependent. However, the change agent should assess the current state of these conditions in the firm, select the one which is easiest to affect and design an intervention and then evaluate how conditions shift in the process of self-organization. They propose stages in the intervention with the help of CDE: Purpose, Preparation (data collection), Process (representation on the continuum) and application. In contrast, Mitleton-Kelly's (2011) research design can be divided into two steps (See Table 3.1):

Stage	Method
Problem space	In-depth interviews with key participants
Co-creation of an enabling environment	Reporting outcome of analysis in a reflect-back workshop of the interviews which is obtained through individual or group analysis.

Table 3.1 - Broad Outline of Mitleton-Kelly's Research Design (2011)

Adopting a case study approach, her basic emphasis is on creating an enabling environment (also incorporated in the work of Vidgen and Wang, 2009). The initial stage for creating such an environment requires drawing out a problem space. For this initial stage, she suggests in-depth interviews of the various key participants and rigorous analysis which can identify clusters of multiple dimensions as a suitable initiation point to build an enabling environment. She states, "It is utmost critical to involve the problem-owners in this stage as it enables them to view their firm as a 'complex social system' and provide them a 'robust' foundation to build a co-evolving enabling environment" (pg.3). MacLean and Macintosh's (2011) research work

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incorporated action research in combination with case study research to explore the application of complexity theory in organizations. Their intervention research method (action research, in this case) is consistent with the theoretical foundation of complexity research project because the researchers are not viewed as "detached, unobtrusive observers" (pg. 239), as much as "creative participants in an unfolding and essentially unpredictable dynamic" (pg. 239) of a complex organizational setting. Shaw's (1997) work provides a different approach to complexity intervention research. Providing a complexity perspective on organizational development, Shaw's (1997) research approach illustrates an unstructured action research project that embraces emergent outcomes, local interactions in the shadow system, working in the tension between shadow and legitimate system and working with feedback loops. This research acknowledges the positive outcomes of Shaw's (1997) approach for complexity research but argues that such research projects require a high level of freedom, support from the management and access into the organization, which is a privileged position and not easily available to all. All of the studies discussed are attempts to bring complexity theories closer to practical application. Houchin and MacLean (2005) argue that complexity approaches should be "exposed to empirical inquiry if they are to be made the basis of an alternative conception of organization and management" (pg.152). This research is one such attempt.

3.3.2. Complexity Theories and Organizational Change

Researchers have described organizational change as episodic or continuous (Weick and Quinn, 1999), and as convergent or radical (Greenwood and Hinnings, 1996; Tushman and Romanelli, 1985) (Plowman *et al.*, 2007). Burnes (2005) states that after the criticism of planned approach to change in 1980s, research interest significantly grew in the punctuated equilibrium model of change proposed by Romanelli and Tushman (1994). Radical change within organizations can be viewed as episodic and/or planned where it can either happen suddenly after long period of equilibrium (Romanelli and Tushman, 1994) and can be intentional (Greenwood and Hinnings, 1996). Plowman *et al.'s* (2007) complexity research work with Mission church highlighted that the radical change in the context of their research case was neither episodic nor planned, which led them to turn to complexity science to develop

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alternative theoretical understanding. In the recent years the continuous approach to transformation which seeks to use complexity theories to understand organizational change is the fastest growing area of interest (Burnes, 2005). Plowman *et al.'s* (2007) used complexity approach to categorise the case of radical change at Mission church as 'continuous radical change'. They conclude that "radical change can become continuous through dynamic interaction of amplifiers, contextual conditions and small changes" (Plowman *et al.*, 2007, pg. 517).

One of the main contributions of complexity theories in organizational research is a gradual departure from linear models and approaches to appreciation of non-linearity, dynamism and complexity of organizational transformations. Styhre (2002, pg.343) also argues that traditional organizational theories have been modelled on Kurt Lewin's "unfreeze-change-refreeze" scheme; complexity theories enable "analysis of discontinuous, disruptive and emerging patterns of change in organizations". Burnes (2004), however, critiques this argument and claims Kurt Lewin model of change and complexity theories are complementary and are similar as they both promote democracy, self-organizing and are group based.

Snowden's work on the Cynefin framework provides a good understanding for sense making, decision making and assessing organizational environments. The framework (see Figure 3.3) consists of three basic systems: complicated, complex and chaotic, with a new category called 'disorder' and the division of order into two – simple and complicated, giving rise to four domains: simple, complicated, complex and chaotic. Based on the Cynefin model, M&A and IJV are complex contexts falling in the domain of emergence and requiring "probe-sense-respond" decision models (Kurtz and Snowden, 2003; Snowden and Boone, 2007). Snowden and Boone (2007, pg.74) claim that –

"Most situations and decisions in organizations are complex because some major change – a bad quarter, a shift in management, a merger or acquisition – introduces unpredictability and flux. In this domain, we can understand why things happen only in retrospect. Instructive patterns, however, can emerge if the leader conducts experiments

that are safe to fail. That is why, instead of attempting to impose a course of action, leaders must patiently allow the path forward to reveal itself. They need to probe first, then sense, and then respond."

COMPLEX	KNOWABLE
Cause and effect are only coherent in retrospect and do not repeat	Cause and effect separated over time and space
Pattern management	Analytical/Reductionist
Perspective filters	Scenario planning
Complex adaptive systems	Systems thinking
Probe-Sense-Respond	Sense-Analyze-Respond
CHAOS	KNOWN
No cause and effect relationships perceivable	Cause and effect relations repeatable, perceivable and predictable
Stability-focused intervention	Legitimate best practice
Enactment tools	Standard operating procedures
Crisis management	Process reengineering
Act-Sense-Respond	Sense-Categorize-Respond

Figure 3.3 – The Cynefin Framework (Adapted from Kurtz and Snowden, 2003, pg.468)

A complexity view of M&A and IJV organizations encourages viewing the problems and challenges of M&A and IJV as "problems of organized complexity" (Weaver, 1948, pg.540). Morgan (1997) uses the image of the Lorenz attractor as an innovative metaphor for thinking about organizational change. It indicates how organizations get trapped in one pattern of behaviour with existing attractors (context) and how small incremental changes can lead the system toward a new attractor. According to Morgan (1997), such a complex system changes its state from one to another as the influence of old attractors (context) weakens and new attractors become the driving force for the change (See Figure 3.4). The concept of incremental changes based on new attractors relates with the working of complex systems. There is no programme, blueprint or plan for the population wide pattern in the emergent outcomes of a complex system.
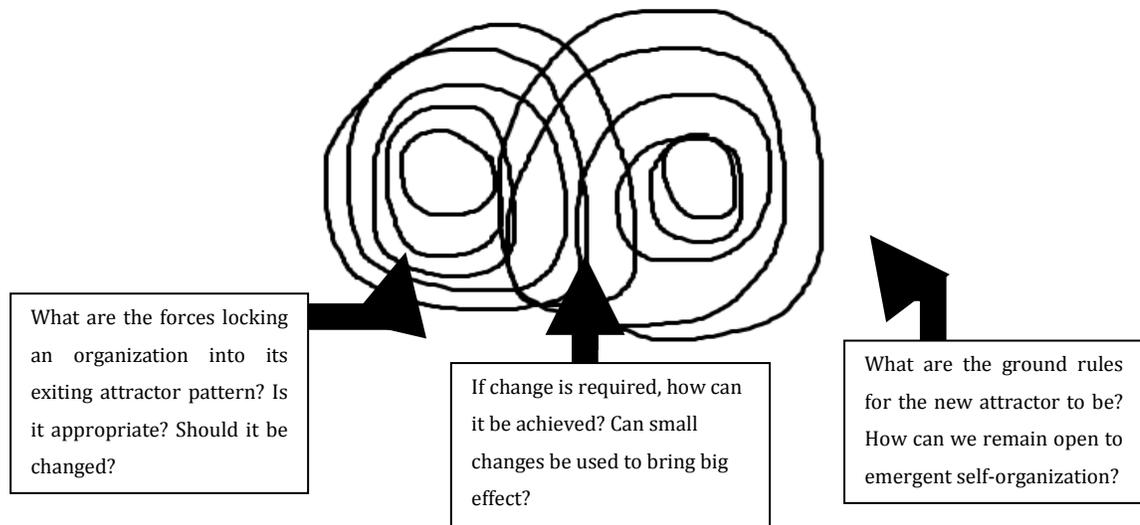
Figure 3.4 - Attractor Patterns and Organizational Change (Morgan, 1997, pg.268)

The population wide patterns, rules of agent behaviour (also called as order-generating rules) and strategies are unknown. Strategy, however, emerges unpredictably in the co-evolutionary process and requires managing change in the midst of complexity (Morgan, 1997). The following factors thus play a critical role for M&A and IJV system to produce positive outcomes (Morgan, 1997, pg.266):

- Rethink the meaning of organization, especially the nature of hierarchy and control.
- Learn the art of managing with a chaotic-complex perspective and know how to change attractors for appropriate self-organization to occur.
- Learn to accept that small but critical changes at critical times can trigger major transformations.
- Be able to live with emergence as a natural state of affairs.
- Be open to new metaphors that can facilitate self-organization

Mitleton-Kelly (2006, pg.38) states that "humans are able to coevolve, to self-organize and to create something new that is emergent in the sense that it could not have been predicted at the outset". However, she suggests that a heterogeneous CAS or CES would produce positive outcomes with thoughtful planning if one "facilitates self-organization, exploration of space of possibilities and emergence" as attractors for the

new state of the CAS (pg.41). This is the key not only for creativity and innovation but also for coevolutionary integration, where combining organizations influence each other and the best way of working is chosen through experimentation. Mitleton-Kelly (2006) views coevolutionary integration as creation of merged or acquired entities, not through imposition but with interaction supported by cooperation, collaboration and trust. She compares this new entity with a child who inherits both parents' characteristics but also has its own identity. The metaphor of a child is not only used for merged or acquired organizations but is also used for IJV firms (Schuler *et al.*, 2004; Iles and Yolles; 2002). Schuler *et al.* (2004) state that an IJV resembles both parents but it also has its own identity and the parents should not impose their culture on it. Hence, Mitleton-Kelly (2006, pg.40) argues that organizations need to move away from the machine paradigm and planning. She argues that merged or acquired or joint venture organization design cannot be planned; not every detail can be controlled and outcomes of complex systems cannot be predicted. This is because humans (i.e. employees) are complex systems which are different from machines (Mitleton-Kelly, 2006). Therefore, they can intentionally and rationally change the rules of interaction, which in turn would change the expected planned outcome of the complex system (i.e. integrated organization). Gersick (1991, pg.33) also states that "human systems, self-aware and goal-directed, have the capacity to 'schedule' their own opportunities for revolutionary change (as with time-triggered transitions), to solicit outside perspectives, and to manage their histories in ways that are inconceivable for nonconscious system".

Mitleton-Kelly (2006, pg.38) argues that humans are complex systems which "create intricate network of relationships sustained through communication". Hence, it can be observed that in complexity science as well as the M&A and IJV literature, the importance of communication is strongly acknowledged. However, Mitleton-Kelly (2006, pg.38) states that the rules of agent interaction are "heavily influenced by their history and culture". She also argues that restrained communication and restricted knowledge encourage dysfunctional behaviour. However, Stacey (2003) cautions that application of order-generating rules to nature is very different from their application in organizations as people can think and exercise free will, they are free to interpret

events in widely differing ways. Nevertheless, this does not mean one cannot apply rules of interaction for self-organization, but this certainly depends on the nature of the organization. Stacey (1995) states that complex systems perform at their highest level when agents interact openly, based on a shared vision as an attractor whilst operating in a bounded instability scenario. Clayton (2010) claims that complexity perspectives can be applied to understand accelerated organizational changes such as M&A. In an organizational setting, introduction of M&A or IJV changes acts as an external stimulus. The inherent complexity of these changes pushes the organization into a far from equilibrium state leading to stable, unstable or adaptive (bounded unstable) behaviours. The nonlinear interaction among employees (agents) helps one understand the complex behaviour of the system under such conditions. It is this nonlinear interaction that produces population-wide patterns, which generate patterns of challenges, actions and adaptations. However, Stacey (1995) states that complex systems perform at their highest level when employees interact freely based on common aspirations. Clayton's (2010) research also indicates that favourable M&A outcomes would be achieved through openness, shared vision and a positive emotional attractor.

3.3.2.1. *Dissipative Structures and Change*

Lichtenstein (2000) argues for the use of non-linear dynamic systems (i.e. complex systems) to understand how and why of organizational transformations. He proposes a "dissipative structures" approach developed by Prigogine and Stengers (1984) to understand organizational change and transformations. Dissipative structures have been a popular approach in interpreting and understanding organizational changes (Gemmill and Smith, 1985; Leifer, 1989; Lichtenstein, 2000; Macintosh and MacLean, 1999; Houchin and MacLean, 2005; Chiles *et al.*, 2004*;* Plowman *et al.*, 2007). Table 3.2 below lists studies that have employed dissipative structures to understand emergent change (Lichtenstein and Plowman, 2009; Lichtenstein, 2000; Plowman *et al.*, 2007; Chiles *et al.*, 2004; Houchin and MacLean, 2005).

Articles → Constructs ↓	Lichtenstein and Plowman (2009)*	Plowman *et al.* (2007)	Chiles *et al.* (2004)	Houchin and MacLean (2005)*	Lichtenstein (2000)
1.	Dis-equilibrium state	Far-From-Equilibrium State	Fluctuation Dynamics	Disequilibrium Conditions	Increased Organizing
2.	Amplifying actions	Actions Amplify Small Change	Positive Feedback Dynamics	Feedback processes working towards achieving the desired new state	Tension and a Threshold of Change
3.	Recombination/ Self-Organization	Emergent Self-Organization	Recombination Dynamics	Order emerging at the boundary of Legitimate and Shadow System	Emergence of a New Configuration
4.	Stabilizing feedback	Negative Feedback	Stabilization Dynamics	Feedback processes acting against achieving the desired new state	System-wide Outcomes (not directly related to Stabilizing feedback)

"*" – Lichtenstein and Plowman (2009) and Houchin and MacLean (2005) are the additions made by the researcher to the existing table in Lichtenstein and Plowman (2009, pg. 619)

Table 3.2 – Theoretical Constructs from Studies of Emergence (Lichtenstein and Plowman, 2009)

Lichtenstein (2000) studied major transformations of three new ventures adopting a case study approach to find that successful transitions exhibit three properties – high self-reference, increased capacity and interdependent organizing. Plowman *et al.'s* (2007) investigation of radical change in a case study of a church claimed that complexity theory constructs suggest how and why such change emerges. The findings illustrate that radical changes are slow, unintended and emergent; disequilibrium conditions help small changes to get amplified to produce large effects, and amplifying actions, contextual conditions and small changes dynamically interact to promote radical change. Chiles *et al.* (2004) draw upon complexity theories to explain emergence of a musical theatre. Adopting a case study approach, their findings suggested a match between the complexity theories perspectives and the emergence of new organizational collective. Houchin and MacLean (2005) adopted a single longitudinal case study research to study strategic change using complexity theory concepts. Their study lies at the boundary of legitimate and shadow system view of organizations proposed by Stacey (1996). Stacey (1996, pg.24-28) provides the following distinction between the legitimate and the shadow system in an organization.

Legitimate System (LS)	Shadow System (SS)
Formal, surprise-free, regular, hierarchical, bureaucratic, deterministic	Informal, spontaneous, surprising, unexpected actions
Shared culture or approved and accepted ideology	Group or organizational cultures that are not part of officially sanctioned culture or ideology
Purpose is to perform the current primary task for organizational survival.	Diverse purposes from organizational politics to unofficial efforts to support or sabotage the legitimate system
Rules of interaction are based on dominant schema	Rules of interaction are based on partially shared and completely unshared rules based on a recessive schema
Interactions are driven by flow of information, energy and actions which are characterised by uniformity, conformity and repetition	Interactions are driven by flow of information, energy and actions along with flow of emotion, friendship, trust etc. which are characterised by varying degrees of uniformity and diversity; conformity and individuality.
Linear system characterised by only one response for any given stimulus; outputs are directly proportional to inputs	Non-linear characterised by many responses to any stimulus and responses are not proportional to the stimulus.
System is not more or less than sum of its parts	System is more than sum of its parts
Boundaries are clear-cut	Boundaries are fuzzy and do not coincide with clear cut LS boundaries

Table 3.3 – Legitimate System and Shadow System (Stacey, 1996, pg.24-28)

Delahaye's (2002, 2005) empirical work draws relation between knowledge management and LS and SS view of organization proposing a model for managing knowledge. Halpin and Hanlon (2008) take Delahaye's (2002, 2005) work forward to examine the relationship between LS and SS within organizations.

3.4. Potential for a Complexity Theory Approach

The review of the M&A and IJV literature (see Chapter 2) illustrated that inter-organizational alliances such as M&A and IJV are business strategies employed by organizations in order to adapt and compete in the ever-changing business landscape. Nevertheless, it cannot be denied that these strategies, even though very popular and important in the current global economy, experience high failure rate (see Chapter 2 section 2.7). It can be argued that a good understanding of behaviour and of how organizations manage complex changes such as M&A and IJV is still missing. It can be debated that current approaches are not detailed and complex enough: 1) to capture the complexity of human and organizational behaviour during M&A and IJV; 2) to acknowledge the inherent and emergent complexity of these strategic alliances. The extant literature highlights focus on linear relationships between simple variables such as communication or culture or people and success, but relation between these variables is highly complex (Wagner and Hilal, 2014). Tsoukas and Hatch (2001) argue that the language of the researcher and the research approaches should be complex enough to understand complex situations. However, M&A and IJV are complex strategic changes which cannot be understood with the prevalent linear simplistic thinking and approaches and hence, cannot be addressed with linear simplistic recommendations, solutions and guidelines. Hence, M&A and IJV demand extra-ordinary multi-level management initiatives which can understand human behaviour in a complex chaotic change environment and encourage a paradigm shift from planning and control toward emergence and self-organization. Therefore, an alternative lens is required which -

- Embraces the inherent complexity of M&A and IJV forms of organizational change

- Takes account of the existence of multiple and multi-level agents and their constant interactions and the emergent outcomes within an organization undergoing M&A and IJV

- Acknowledges that the entire M&A and IJV process cannot be planned, predicted and controlled, because of the inherent complexities.

- Understands that organizational change is not a unidimensional sequence of subsequent activities but rather takes place amidst the chaos of temporary conditions and interrelated activities (Styhre, 2002). In spite of planning change initiatives over time, change occurs sporadically as a result of irregular bursts of challenges, activities and enthusiasm.

In the last few decades, many organizational researchers and practitioners have proposed applying the lens of complexity theory to view organizations and this has profoundly influenced views about "how organizations should be structured and changed" (Burnes, 2004, pg. 310; Burnes, 2005). There are several reasons which make a complexity lens an appropriate choice to view M&A and IJV management. Firstly, Clayton (2010) believes that the most important insight that complexity science provides for better understanding of M&A or IJV ambiguity is that the proponents of this school expect the unpredictable outcomes of these complex changes that has bewildered other researchers from many years. The order in complex systems is unpredictable, which is in accordance with the unexpected outcomes of M&A and IJV. Secondly, Stacey (1995) highlights that in changeable non-linear systems such as organizations the relationship between cause and effect disappears. Hence, one cannot plan, control and predict outcome of a complex system. This fits well with the unpredictable nature of M&A and IJV and the complexity associated with several attempts made in the extant literature to plan and control their outcomes. Mitleton-Kelly (2006) also argues that repeated failure in creating an integrated organization demands a new approach as humans are not machine-type systems and their behaviour cannot be planned and predicted. This is not to say that planning is not required; it just means it is not sufficient. Thirdly, this research agrees with Armenakis and Harris' (2009) claim that organizational scholars have mainly adopted a leader-centric focus on strategic transformations. They propose a more change recipient employee-centric path. However, they agree that these paths are not

mutually exclusive and cross each other. This research assumes that "changes are ultimately implemented by change recipients, understanding their motivations to support organizational changes or not provides very practical insights into how to best lead change" (Armenakis and Harris, 2009, pg. 128). The claim is also supported by Bartunek *et al.* (2006) who believe change recipients' experience is mostly cast as resistance and their experience of change is an area that has been given less attention. These views support the logic of complexity theories, which propose that changes are most effective when the approach is both bottom-up and top-down (Mitleton-Kelly, 2011) and emergent change is embedded in the interaction between various levels of organizations; and cannot be planned, predicted and controlled in absolute detail. These three vantage points make complexity theories more apt to study complex change phenomena such as M&A and IJV.

This research draws on the argument offered by Regine and Lewin (2000, pg.18) which states, "When we speak of businesses as complex adaptive systems, we are not speaking of a metaphor or a technique; rather we are saying that by understanding the characteristics of complex adaptive systems (CAS) in general, we can find a way to understand and work with the deep nature of organizations". This research is an attempt to understand the deep nature of organizations that have experienced M&A and IJV from the perspective of the members of the organization. Axelrod and Cohen (1999) claim that the nature of complex systems being able to learn and evolve through adaptation can be argued for organizations experiencing M&A and IJV, where an organization learns and evolves through adapting to M&A and IJV. For organizational researchers, complexity theories provide an important insight into the roles of people as agents with their own personal schemata and the interaction between agents from various hierarchical levels of the organization that drives the emergent behaviour. Hence, an attempt is made here, not simply to import complexity ideas but to "inform rich, theoretically-grounded…depictions of how organizations operate" (Anderson *et al.*, 1999, pg. 233).

3.5. Research Questions and Objectives

Both M&A and IJV literatures have proposed a case study research approach in the post-integration phase to better understand the messiness and complexity of the M&A

and IJV process (Bengtsson and Larsson, 2012; Beamish and Lupton, 2009). Moreover, case study has also been a popular research approach in complexity and management literature (Mitleton-Kelly, 2011; Clayton, 2010; Eoyang and Olson, 2001; Macintosh and MacLean, 1999; Lichtenstein, 2000; Houchin and MacLean, 2005; Chiles *et al.*, 2004*;* Plowman *et al.*, 2007; Vidgen and Wang, 2009). Therefore, this research adopts a case study research approach to focus on M&A and IJV activity in an Indian pharmaceutical engineering firm, using the lens of complexity. The attempt is to use complexity theories to better understand patterns of major transformations such as M&A and IJV and their emergent outcomes. Therefore, the primary research question RQ1 and secondary research question RQ2 which can be drawn from the critical review of M&A, IJV and complexity literature is as follows:

- ➢ RQ1- What insights can be gained from employing a complexity lens to understand M&A and IJV?
- ➢ RQ2 - What philosophical underpinnings need to be taken care of in applying complexity theories to management research?

This leads to the following research objectives:

- RO1 - To conduct in-depth review of M&A and IJV literature to explore challenges in M&A and IJV management and to identify gaps in the literature.
- RO2- To use complexity theories in order to understand patterns of major transformations such as M&A and IJV.
- RO3 - To use complexity theories in order to understand the emergent outcomes of major transformations such as M&A and IJV.
- RO4 - To develop a complexity research methodology based on the philosophical underpinnings of this research project.
- RO5 - To collect and analyse the data in accordance with the philosophical underpinnings of this research project.
- RO6 - To conduct a theoretically grounded discussion of the research findings with reference to M&A, IJV and complexity theories literature.

- RO7 - To illustrate theoretical contributions, methodological contributions, managerial implications, reflection on the research process, limitations of the study and future research directions.

The primary research question RQ1 cannot be approached without the support of secondary research question RQ2. Both the research questions are linked with several research objectives. Figure 3.5 summarizes the connections between research questions and objectives -

Research objectives

RO1 - To conduct in-depth review of M&A and IJV literature to explore challenges in M&A and IJV management and to identify gaps in the literature.

RO2- To use complexity theories in order to understand patterns of major transformations such as M&A and IJV.

RO3 - To use complexity theories in order to understand the emergent outcomes of major transformations such as M&A and IJV.

Research questions

RQ1- What insights can be gained from employing a complexity lens to understand M&A and IJV?

RQ2 - What philosophical underpinnings need to be taken care of in applying complexity theories to management research?

RO4 - To develop a complexity research methodology based on the philosophical underpinnings of this research project.

RO5 - To collect and analyse the data in accordance with the philosophical underpinnings of this research project.

RO6 - To conduct a theoretically grounded discussion of the research findings with reference to M&A, IJV and complexity theories literature.

RO7 - To illustrate theoretical contributions, methodological contributions, managerial implications, reflection on the research process, limitations of the study and future research directions.

Figure 3.5 - Connections between Research Questions and Objectives

After critically reviewing M&A and IJV literature (see Chapter 2) and making a decision to use complexity theories (see section 3.4) to better understand patterns of major transformations such as M&A and IJV and their emergent outcomes (RQ1). It is deemed important to conduct an in-depth review of philosophical debates and issues in applying complexity theories to management research. Hence, the next section is intended to approach the secondary research question.

3.6. Complexity Philosophy

This section focuses on the complexity philosophy literature in order to answer the secondary research question - "What philosophical underpinnings need to be taken care of in applying complexity theories to management research?" (RQ2). This literature is more conceptually developed and questions the fundamentals, explores the concerns (such as ontological differences, boundary issues etc.) and tries to mediate a way in which complexity science can be used for in-depth study of an organization. It highlights the limits, possibilities and areas of reflection and sensitivity. The section begins with the introduction of the terms, ontology and epistemology. The discussion then leads into the introduction of the term 'paradigm' where Kuhn's (1970) and Burrell and Morgan's (1979) notions of paradigm are elaborated. The section then discusses the several schools of thought embedded in various competing paradigms that use complexity theories to study social science phenomena. These schools, espousing different paradigms, themselves form a complex intricate network of interconnections. In the succeeding part, the debates around application of complexity science to study social phenomena are explored. The similarity between paradigm development in the systems and complexity domains is also brought to the surface in this section. Whilst the discussion thus far focuses on various paradigms, in the subsequent part, the discussion is focused more explicitly on the context this research. Here, the philosophical beliefs underpinning the research are justified. The discussion of research philosophy draws on Cilliers' (2002) and Richardson's (2008) work focusing on the critical pluralist approach. Reasons and arguments are provided at all possible junctures to justify the approach and its relation with complexity thinking. A thoughtful summary concludes the section,

making way for the conclusion of this chapter in order to move on to the research methodology in the next chapter.

3.6.1. Subjectivism-Objectivism

Burrell and Morgan (1979) claim that social scientists should approach their research by making explicit or implicit assumptions about the nature of the social world and the way in which it should be investigated. They denote these assumptions as ontology and epistemology. Ontology is defined as the "assumptions that we make about the nature of reality" (Easterby-Smith *et al.*, 2002, pg.31). Epistemology constitutes a view of the nature of knowledge (Burrell and Morgan, 1979). While conducting research, the initial ontological assumptions that need to be addressed are "whether the 'reality' that is under investigation is external to the individual or the output of individual consciousness, whether 'reality' is objective or out of individual cognition, whether 'reality' is 'out there' in the world or the product of one's mind" (pg.1). Moreover, epistemological assumptions should be understood regarding "how one might understand the world and communicate this as knowledge to fellow human beings" (Burrell and Morgan, 1979, pg.1). The communication issue involves understanding of 'whether the knowledge can be transferred in hard, real, tangible form or soft, spiritual, transcendental, subjective form" (pg.1). This polarity of understanding creates two extreme positions about epistemological assumptions, highlighting issues such as whether knowledge is something that can be acquired or is something that is personally experienced. Both ontological and epistemological assumptions are often discussed in terms of subjective and objective views of society (Burrell and Morgan, 1979). Deetz (1996) criticizes the subjective-objective distinction proposed by Burrell and Morgan (1979) stating this dichotomy is old and socially contrived. The subjective-objective dualism causes misleading assumptions and conflicts about qualitative and quantitative research: "When only one slice of research is claimed as science, research loses relevance and critical parts of the process are not investigated" (Deetz, 1996, pg.195). They argue that objective research has a control orientation which can be viewed as the "domination of a particular group's desires over and against existing communities and the natural environment" (Deetz, 1996, pg.194). Therefore, the subjective-objective dichotomy

basically limits the scope of research and the distinction between the two is misleading, outmoded and limiting. This research supports Deetz's (1996) claim about the overlap between subjectivism and objectivism, which states that objectivism is basically too subjective. In this approach, "research, concepts and methods are held *a priori*, are unknown projections of researchers' own ways of encountering the world, constitute the world as observed without ownership or critical reflection, and are not subject to the 'objection' of the outside toward possible alternatively constituted worlds" (Deetz, 1996, pg.193-194). Subjectivism has a better claim over objectivity as it considers alternative language and constructions by giving importance to the community, and denies that the conceptions and methods of the research community are ultimate and superior.

3.6.2. Research Paradigm

The highly influential term 'paradigm' which has had an influence on research in many disciplines was first used by Kuhn (1970) in his research about the structure of scientific revolutions. Burrell and Morgan (1979) define paradigm as "a term which is intended to emphasise the commonality of perspective which binds the work of a group of theorists together in such a way that they can be usefully regarded as approaching social theory within the bounds of the same problematic" (pg.23). Paradigms determine what a 'valid' research question is and how it is approached. Hence, Burrell and Morgan (1979) illustrate the key role of assumptions (ontological and epistemological) for the explanation of the four paradigms - functionalism, interpretivism, radical humanism and radical structuralism that they suggest researchers may make about the nature of organizations and the research process (Bryman and Bell, 2003). A brief explanation of these four paradigms is provided below (Burrell and Morgan, 1979):

Functionalism – This approach is firmly embedded in the sociology of regulation and adopts an objectivist point of view. Its main characteristic is that it "seeks to provide essentially rational explanations of social affairs" (Burrell and Morgan, 1979, pg.26). It is highly pragmatic and problem-solving in orientation. This approach to social science is based on the assumption that the social world consists of "relatively concrete empirical artefacts and relationships which can be identified, studied and

measured through approaches derived from the natural sciences" (Burrell and Morgan, 1979, pg.26).

Interpretivism - This approach is also embedded in the sociology of regulation, but adopts a subjectivist point of view. This approach attempts to understand the subjective experience and seeks explanation of participants' consciousness. Proponents of the interpretivist paradigm "see the social world as an emergent process which is created by the individuals concerned" (Burrell and Morgan, 1979, pg.28).

Radical Humanism - This approach is embedded in the sociology of radical change and adopts a subjectivist point of view. It shares some commonality with the interpretive paradigm but its frame of reference focuses on over-throwing or changing the current social state of affairs. It emphasizes the role of human consciousness and proposes that societal superstructures play a role of a wedge between the individual and his true consciousness. It critiques the status quo and its essence is an inversion of the assumptions that comprise the functionalist paradigm (Burrell and Morgan, 1979).

Radical Structuralism - This approach is also embedded in the sociology of radical change, but adopts an objectivist point of view. Proponents of this paradigm focus upon the structural relationships in a realist social world. They stress "the fact that radical change is built into the very nature and structure of contemporary society, and they seek to provide explanations of the basic interrelationships within the context of total social formations" (Burrell and Morgan, 1979, pg.34). They propose that radical change in society gives rise to fundamental conflicts which cause radical change with the help of political and economic crises.

Burrell and Morgan (1979, pg.24) claim that "all social theorists can be located within the context of these four paradigms according to the meta-theoretical assumptions reflected in their work". These paradigms have an underlying unity in terms of basic and 'taken for granted' ontological and epistemological assumptions which often creates a fundamental separation between various groups of researchers (Burrell and Morgan, 1979). However, they agree that "given the overall meta-theoretical assumptions which distinguish one paradigm from another, there is room for much

variation within them" (Burrell and Morgan, 1979, pg.24). They claim that "inter-paradigmatic journeys are much rarer" (Burrell and Morgan, 1979, pg.24) and even though possible, such paradigm-change requires a revolution (Kuhn, 1970; Burrell and Morgan, 1979). In Burrell and Morgan's (1979) opinion, changing a paradigm is almost equivalent to changing ones religious faith (Keat and Urry, 1975, pg.55). Kuhn (1970) emphasizes that it is the study of paradigms that prepares a student for membership in a particular community. Researchers with shared paradigms are committed to the same rules and standards for a particular kind of research. Often, a theorist who changes paradigms is welcomed and owned by the group whose paradigm he has chosen and is disowned by his former 'paradigm colleagues', according to Burrell and Morgan (1979, pg.25). They claim that the four paradigms proposed by them are mutually exclusive in the sense that it is not possible to work within different paradigms at the same time; by accepting one paradigm, one rejects the assumptions made by the other paradigms. However, this view is often critiqued as it creates 'paradigm isolation' and discourages the potential richness of a multiple paradigm view (Deetz, 1996; Zhu, 2006, 2011). Deetz (1996, pg.191) goes on to note that "as organizational science and research agendas have continued to evolve, problems with Burrell and Morgan's grid have become more pressing" (Deetz, 1996, pg.191). He claims that the dimensions of Burrell and Morgan's paradigms should be used to guide attention rather than as a means of classification. He encourages thoughtful and productive reflection about the similarities and differences between different research approaches rather than "simply replacing four boxes with four different boxes" (Deetz, 1996, pg.192). Zhu (2006, pg.762) also argues that the popularity of the Burrell and Morgan (1979) grid was more a "choice of the day" but much has changed in management science in the 30 years since Burrell and Morgan's work.

Complexity as a research paradigm or complexity paradigm is in itself an outcome of a paradigm change in the sciences from splitting of problems into smaller parts toward looking at the whole system with rich interconnections between the parts. Alvin Toffler, cited in Prigogine and Stengers (1984), states that this paradigm change relies on the interconnections between the sciences and the society where classical science

or 'Newtonianism' resided in a deterministic world proposing a mechanistic view that coincided with the rise of industrial civilizations. He states, "The Age of the Machine enthusiastically embraced scientific theories that pictured the entire universe as a machine" (Prigogine and Stengers, 1984, pg. xiii). However, Prigogine and Stengers (1984) challenged the age of the machine that emphasized closed systems and linear relationships aiming stability, order, uniformity, determinism and equilibrium. The Prigoginian paradigm (Prigogine and Stengers, 1984), according to Toffler; shifts attention to open systems, disorder, instability, diversity, disequilibrium, non-linear relationships and temporality – aspects which characterize the current social change.

Like Toffler (Prigogine and Stengers, 1984), Kuhn (1970) considers that normal sciences tend to be dominated by a particular paradigm, until they are challenged by anomalies that are inconsistent with the existing paradigms in that discipline. Such an "anomaly appears only against the background provided by the paradigm" (Kuhn, 1970, pg.65). The more precise and far-reaching that paradigm is, the more sensitive an indicator it provides of an anomaly and hence of an occasion for paradigm change. These anomalies penetrate the existing body of knowledge to the core, eventually leading to crisis in the discipline which demands a revolution leading to a paradigm change, for example, Ptolemy's geocentric model of the universe versus Copernicus' heliocentric model. However, discoveries are not the only source for construction of paradigm changes; sometimes paradigm changes are the outcome of invention of new theories. Kuhn (1970, pg. 71) explains that "proliferation of versions of a theory is a very usual symptom of crisis" and "novel theory seems a direct response to crisis" (Kuhn, 1970, pg.75). He emphasizes the importance of crisis by illustrating "the role of crisis is impressive: the solution to each of them [problems] had been at least partially anticipated during a period when there was no crisis in the corresponding science; and in the absence of crisis those anticipations had been ignored" (Kuhn, 1970, pg.75). Kuhn (1970, pg.76) summarizes the phenomenon of paradigm domination, challenge and eventual change as below:

> *"Philosophers of science have repeatedly demonstrated that more than one theoretical construction can always be placed upon a given collection of data. History of science indicates that, particularly in the early development stages of a*

new paradigm, it is not even very difficult to invent such alternates. But that invention of alternates is just what scientists seldom undertake except during the pre-paradigm stage of their science's development and at very special occasions during its subsequent evolution. So long as the tools a paradigm supplies continue to prove capable of solving the problems it defines, science moves fastest and penetrates most deeply through confident employment of those tools. The reason is clear. As in manufacturing so in science – retooling is an extravagance to be reserved for the occasion that demands it. The significance of crisis is the indication they provide that an occasion for retooling has arrived".

The complexity paradigm can be seen as a discovery or a response to a crisis in Kuhn's views, or it can be seen as a paradigmatic response to the current demands of a complex social world in Toffler's view. In summary, complexity paradigm provides a language to comprehend the highly complex, global, networked and connected current social system with fast channels of information sharing through rise of World Wide Web, and embraces the unpredictability and uncertainty demanding high levels of adaptability.

3.7. Competing Paradigms within Complexity Sciences

According to Kuhn (1970, pg.11), "acquisition of a paradigm and of the more esoteric type of research it permits is a sign of maturity in the development of any given scientific field". Kuhn (1970) describes disciplines, in which no eminent paradigm has emerged, such as social sciences, as pre-paradigmatic, in that they feature many competing paradigms (Bryman and Bell, 2003). The pre-paradigmatic state attributed to social sciences can also be ascribed to the field of complexity, as it has yet not achieved a uniform paradigm or it can be said that it is a complex system itself. It is still in its pre-paradigmatic stage, characterized by the presence of many competing schools. To support this claim, Richardson and Cilliers (2001) draw attention to three main competing schools of thought under the field of complexity, namely: reductionistic complexity science, soft complexity science and complexity thinking. These three schools were further elaborated by Richardson (2008) as 'three schools of thinking within the complexity movement'. In the latter article, these schools of thought were renamed as the neo-reductionist school, the metaphorical school and

the critical pluralist school, in an attempt to relate these schools to their underlying paradigmatic assumptions. Richardson (2008), however, claims that these competing schools are not isolated from each other but form a complex system of intricate relationships. These three schools are discussed below (the third school of thought is also elaborated in the later sections of this chapter):

➢ Reductionistic complexity science/the neo-reductionist school– This school works to uncover the principles that govern complex systems and is associated with the quest for a Theory of Everything (TOE) to provide an explanation for everything. This community makes considerable use of computer simulations for agent based modelling. Proponents imply that many complicated systems are governed by simple rules and with the help of computers, scientists can uncover those rules. However, Richardson (2008, pg.19) critiques this view, stating, "The recursive application of simple rules, is certainly not the only source of complex behaviour, and should not be seen as the only legitimate way to study complexity in human organizations".

➢ Soft complexity science/ the metaphorical school– According to this school, complexity thinking provides a useful language and a powerful lens through which one can see organizations. This school believes that the social world is intrinsically different from the natural world and theories of complexity are not directly applicable. However, they provide a powerful language which may provide some relevant insights into behaviour in the social world, which encourages some limited control over the social world. Richardson (2008) appreciates this school of thought but critiques the 'anything goes' attitude that abuses the richness of this approach. He further claims that metaphors are essential and argues that "in an absolute sense all understanding can be nothing more (or less) than metaphorical in nature" (Richardson, 2008, pg. 20). Nevertheless, he expresses concern about the uncritical use of metaphors and demands some concrete grounding if they are to be applied to businesses. He regards this school as extremely creative but argues that creativity alone is insufficient to draw successful managerial implications.

➢ Complexity thinking/ critical pluralist school – Richardson and Cilliers (2001, pg.7) claim this school "considers the limits of our knowledge in the light of complexity, limits that are often trivialized by contemporary scientific thinking". They also claim this is the least well represented school in the complexity literature. Richardson (2008) claims that on a complexity spectrum, neo-reductionism is at one extreme and metaphorism is at the other. But appreciation of a complexity perspective when used to underpin a philosophical outlook draws from, but at the same time undermines, both extremes, so what is needed is a middle ground. Richardson (2008, pg.21) cites Cilliers (1998, pg.4) who states that "one of the first consequences that arise from the complexity assumptions is that as we are ourselves less complex than the Universe (The Complex System), as well as many of the systems we'd like to control/affect, there is no way for us to possibly experience 'reality' in any complete sense." He argues that we are forced to view 'reality' through categorical frameworks that allow us to 'fudge' our way through life where 'fudge' implies an "easy way of forcing reality to fit the underlying theory, rather than starting from scratch and concocting an alternative theory" (Richardson, 2008, pg.21).

Richardson (2008), further, states how these three competing schools based on different paradigms contribute to the study of human organizations. The first school, the neo-reductionist, provides advanced analytical tools which can help managers in the decision making process. Second, the metaphorical school certainly can play a part in everyday management activities. This school has a profound effect as it seeks to enhance or replace existing worldviews with one which is more sensitive toward inherent complexities experienced daily. Meanwhile, the third school urges that "the limited and the provisional nature of our understanding has to be recognized" (Richardson, 2008, pg.8). Mitleton-Kelly (2003, pg.25) argues that "complexity builds on, and enriches systems theory by articulating additional characteristics of complex systems and by emphasising their inter-relationship and interdependence".

Midgley and Richardson (2007) extend the discussion on various competing paradigms further by shedding light on the development of systems thinking and

comparing it with developments in complexity research (See Table 3.4). They also state that there exist several interacting research communities and there exists a great potential for them to learn from each other (Hammer *et al.*, 2012). They provide the following table illustrating multiple paradigms which have emerged in both systems and complexity perspectives.

Complexity	Systems
Complexity Science	General System Theory
Agent-Based Modelling	Hard Systems Thinking
Interpretive Complexity/Social Interactionism	Soft Systems Thinking
Critical Complexity	Critical Systems Thinking

Table 3.4 - Multiple Paradigms in Systems and Complexity (Midgley and Richardson, 2007, pg.171)

Table 3.4 provides a summarized view of competing paradigms in both fields, which seem to range from being highly technical to critical in perspective. This also highlights the similarities in development of various schools of thought across both the disciplines. The development of various competing schools of thought under the umbrella of the same domain resonates with Burrell and Morgan's (1979) claim that the presence of a paradigm in any discipline does not necessarily imply complete unity of thought. There could be various standpoints and debates within the context of any given paradigm. Kuhn (1970, pg.13) agrees that various schools based on different paradigms compete with each other before a discipline acquires its "first universally received paradigm". It can be inferred from Midgley and Richardson's (2007) work that application of complexity in social science is currently in the development stages and is far from recognition of any universal paradigm. Moreover, Kuhn (1970) claims that even social science have not achieved such a paradigm state. He asks an open question, "What parts of social science have yet acquired such paradigms at all? But he does acknowledge that history suggests obtaining such a paradigm for social sciences is extraordinarily difficult. Such developments within a discipline lead to paradigm debates between proponents of different schools, which will be discussed in the next section.

3.8. Paradigm Debates in Application of Complexity Science to Social Sciences

Phelps and Hase (2002) illustrate that the literature on complexity science is broadly divided into the highly technical, the heavily philosophical, and more recent developments on applications of complexity science. They acknowledge that application of complexity in social sciences has its own set of critics but argue that a sufficient amount of literature and empirical research is now available to recognise that the complexity 'paradigm' is set to challenge thinking in many disciplines. It has not been more than a decade since researchers studying organizations started to explore the potential of complexity theory (Burnes, 2005; Clayton, 2010). Regine and Lewin (2000, pg.7) claim, "Complexity science is still nascent as a theory, but it has determined certain fundamental processes and characteristics of complex adaptive systems". Hence, it is important to note that application of complexity theory to the study of organizations is still in its initial stages of development and definitely very far from what Kuhn would term the identification of universally received paradigm. Indeed, at this current stage (as discussed in the earlier section), complexity research is more in a state where competing paradigms from various schools and sub-schools are espousing one variant or another (Kuhn, 1970). Nevertheless, the existence of such competing schools is not necessarily a weakness, as it brings high potential and richness to the discipline (Kuhn, 1970). Kuhn (1970, pg.13) argues that "any definition of the scientist that excludes at least the more creative members of these various schools will exclude their modern successors as well". The heterogeneous state of a discipline is part of the journey toward identification of a shared paradigm and this definitely does not happen overnight (Kuhn, 1970).

The appreciation of complexity theory in other domains such as mathematics and sciences makes its application in social sciences, especially organizational theory, very appealing. However, Introna (2003) argues that complexity theory should not be claimed as a new "meta theory" especially in an age where grand narratives and meta-theories are less appealing. He further argues that it is unlikely that one theory or a group of theories can provide solutions and clarification to all the social issues prevailing in human organizations. The warning against claiming a meta-theory can

be supported by the example of General Systems Theory, which initially raised high expectations that it would provide useful answers to all complexity in human firms (Introna, 2003). Such optimism has proved ill-founded. Moreover, the application of complexity theory in social sciences is criticized on the basis of ontological incommensurability, which should not be confused with paradigm (in)commensurability in systems studies. Paradigm (in)commensurability was first coined by Flood and Romm (1996) in the systems domain as a response to the critique of the 'multiparadigm' / 'multimethod' research approach. Mingers and Gill (1997) propose critical pluralism in order to deal with the issues of paradigm (in)commensurability in using multiple systems methodologies. The paradigm (in)commensurability debate is not very common in complexity research literature, as a mixed-method perspective is very common in complexity based social science research (Cilliers, 2002; Phelps and Hase, 2002; Midgley, 2000; Zhu, 2011; Richardson and Cilliers, 2001; Richardson, 2008; Mitleton-Kelly, 2011). Rather, in this section the debate is about application of complexity science to study a social science phenomenon. In the complexity domain, this debate is woven around the ontological incommensurability between complexity science and social science. Introna (2003) argues that complexity science and social sciences are ontologically incommensurable, for three reasons. Firstly, Introna (2003, pg.208) argues that the ontology of mathematical and physical systems is objectivist-realist, noting the "centrality in this ontology of the assumption of *a priori* (already there) logic or set of operations that fundamentally constitute the system, independently of us, and that only needs to be unravelled in order to enable effective intervention of the system". On the contrary, he asserts a social constructionist stance to the ontology of social systems, stating that "social systems are socially constructed and historically emerging" (pg.209). Secondly, he argues that physical and mathematical systems are ontologically incommensurable with social systems. He states, for example, that while investigating an atom, our ontological view identifies that it is an atom and not a human and this ontological view influences our epistemology to design appropriate methods of investigation to produce results and choose appropriate theoretical frameworks.

In support of this argument, Mitleton-Kelly (2003, pg.25) acknowledges the limitation of mapping and states that "such an examination is merely a starting point and not a mapping, and that social systems need to be studied in their own right". She emphasizes that characteristics and behaviours cannot be directly matched as human beings have capacity to learn, reflect, make deliberate choices and take decisions, which differentiates them from other entities in the biology, physics or chemistry domains. Introna's (2003, pg.207) third argument states that incommensurability means "having no common factor, base, or essential characteristic that if shared would warrant grouping one entity or phenomenon with some other". Thus, if phenomena are ontologically incommensurable then they are different in terms of constitutive elements, processes and logic. This difference is so great that these phenomena are fundamentally and qualitatively different and one cannot help understand the other. Critiquing such a view, Richardson and Cilliers (2001, pg.11-12) propose that:

"Insights from the human sciences on the one hand, and natural sciences on the other, should not be set against each other, nor should they be assimilated too easily. They should be allowed to challenge each other. We should not be allowed the comfort of merely sitting within the well-known domain of our own disciplines; we should be forced to transform them".

However, Introna (2003) states that a 'thoughtful complexity thinker' would agree on the presence of at least some level of ontological incommensurability that needs to be addressed before complexity theory can be accepted as useful in social theory. Nevertheless, with a view towards the possibility of reconciliation or accommodation of both complexity and social science domains, he discusses and critiques alternative approaches such as metaphor, analogy and pragmatics. Mitleton-Kelly (2003, pg. 25) also critiques approaches such as metaphors or analogies, regarding them as "limited and limiting". She states that such approaches should be used as 'transitional objects' as they help in the transition of our thinking when novel ideas or concepts are developed. Introna (2003) suggests one realistic alternative would be development of a completely new domain called social complexity theory, which incorporates both complexity theory and social science instead of mapping them. Eoyang (2011)

encourages a pragmatist paradigm toward application of complexity theory in social science. She states that excluding any of the epistemological and ontological assumptions constrains the use of complexity science theory and tools for organizational change. Hence, she recommends Habermas' (1984) approach, which states that the emergence of intersubjective truth relies on objective external evidence, subjective personal perspective and/or normative group consensus. Her pragmatic stance is based on the assumption that, firstly "the purpose of organizational change is to facilitate change in organizations. Such a stance requires doses of both ontological and epistemological reality. The organization, as an object of action, must be assumed to exist, as it responds in demonstrable and unpredictable ways to action of individuals and groups" (Eoyang, 2011, pg. 318). Secondly, the main organizational characteristics at important junctures are also determined by the perspectives, experiences and world views of the engaged actors. Moreover, there exists a school of thought based on a different pragmatist stance in systems research which claims that "after paradigm, there are many possibilities" (Zhu, 2011). This form of pragmatism proposes that ontological flexibility is particularly useful to break the paradigm mentality. This school claims that moving beyond a paradigm is also a form of paradigm change (Kuhn, 1970). In the context of operational research, its proponents promote rejection of paradigm legitimation and encourage acceptance of multiple realities, since, while "a pragmatist approach removes the certainty and comfort that was promised by a master paradigm or a small set of mandatory paradigms, at the same time it moves our theorising closer to practice" (Zhu, 2011, pg.795). However, Introna (2003) criticizes the pragmatic approach toward the application of complexity theory in social sciences. Noting that such a stance "bypasses the theoretical debate in favour of going 'out there' and 'getting the job done'" (Introna, 2003, pg. 216), he argues that such an approach can only make worse the already crowded "market place of ideas" and increase the confusion of our already scattered understanding of the social world. With regard to the realist paradigm, Richardson (2008, pg.24) critiques the realist approach and recommends that "scientific understanding (not knowledge) should be used to guide our decisions, not determine them as such understanding is correct only in loose sense....this is true of all understanding once we accept the limitations of the realist worldview. Rather than

regarding our knowledge as faithful maps of reality we must see it as potentially useful, but not necessarily so, caricature of reality, or as a metaphor".

The discussion so far has introduced various schools espousing different paradigms under the complexity domain. Then the concept of ontological incommensurability was introduced as a critique of applying complexity science to study social science phenomena. The views of various paradigms (realism, pragmatism, social constructionism and critical pluralism) to reconcile this issue were then discussed, which now leads to a focused discussion in the context of this research.

3.9.   Critical Pluralism/Complexity Thinking

This research aims to use complexity theory to analyse a social science phenomenon, "organizational change". It proposes to use complexity as a conceptual framework to explore intricacies of organizational changes such as mergers and acquisitions (M&A) and international joint ventures (IJV). The absence of "universally accepted paradigms" in social sciences and complexity theory and controversy regarding the combination of the two (application of complexity science to social science), where this research lies, certainly pose a challenge for the researcher to choose a paradigm that unequivocally fits in this research. Therefore, in the case of this research, the aim is not to fit into a paradigm but to carefully select a paradigm that fits more aptly with the aim of this research. By taking into consideration the philosophical debates, it can be concluded that the best possible paradigm for this research would be the one which best supports the research question ontologically and epistemologically. Phelps and Hase (2002) propose that complexity theory has potential to bridge the gap between the natural sciences and social sciences and provide an interesting perspective on paradigm wars, but this would certainly depend on how complexity embraces these two communities. With regard to the claims of ontological incommensurability between complexity sciences and social sciences, this research agrees with Introna's (2003) view about being a 'thoughtful complexity thinker'. However, in response to this issue, the research firmly follows Richardson and Cilliers' (2001, pg.11-12) claim that human sciences and natural sciences should not be set against each other, nor should one combine them with ease, but both domains should

be allowed to challenge and learn from each other. They caution that trans-disciplinary work is very challenging and rarely done correctly. However, for such a transformation to work, they suggest two contributions that complexity science can make. Firstly, complex issues cannot be understood within finite limits by granting a few methods high superiority over others. Hence, they encourage methodological pluralism. Secondly, as it is difficult to have perfect and complete description of complex systems, we need to accept the limited position. In this regard, they state that "the best one possible is, of course, also more humble" (Richardson and Cilliers, 2001, pg.12). This research also agrees with Regine and Lewin's (2000, pg.7) claim that,

"When we speak of businesses as complex adaptive systems, we are not speaking of a metaphor or a technique. Rather, we are saying that by understanding the characteristics of complex adaptive systems, we can find a way to understand and work with the deep nature that is, the fundamental processes—of organizations."

To extend this same line of thought further in the context of this research, this research accepts Thompson and Perry's (2004, pg.403) view on paradigms which states, "There is no paradigm free, neutral position from which to choose a paradigm to work within; that is, there is no "objective" ground for choosing a paradigm. All that one can do is work within a paradigm that is consistent with your own ultimate presumptions as a researcher, presumptions that cannot be tested on any empirical or logical grounds". The researcher agrees with Lincoln and Guba's (1985) claim that "a paradigm reflects a researcher's understanding of the nature of existence that is beyond 'logical' debate because each paradigm is 'rational' within its own constructed logic". Richardson (2008, pg.22) brings to attention that "philosophy is a study of what underlies choice". Researchers make choices about methodology, research boundary etc. which come from a philosophical point of view, which then depends on epistemological justifications (Hughes, 1990).

This research overall adopts Cilliers' (2002) philosophical view on complexity, which proposes a distinction between complexity at an ontological and epistemological level. He states that this distinction encourages us to "deal with the problem of our knowledge of the world in the following way: The world itself is not complex, it just is.

There is nothing mystical about the complex systems. It is merely that we cannot keep track of all the millions of nonlinear interactions when we have to describe it" (Cilliers, 2002, pg.78). Cilliers (2000, 2002) accepts that the behaviour of a complex system is determined by the nature of its interactions, but argues that there is a lack of practical ways of grasping all the interactions at play in a complex system. Therefore, even though this research acknowledges the point of view proposed by Berger and Luckman (1966) stating "social reality is not separate from us, but that social realities and ourselves are intimately interwoven as each shapes and is shaped by the other in everyday interactions" (Cunliffe, 2008, pg.124); it raises epistemological concerns about handling all the non-linear interactions at work to draw a research methodology. Hence, it accepts the claim made by Cilliers (2002, pg.78) that: "Complexity is therefore only an epistemological matter". In order to address this epistemological complexity, this research believes that a 'critical pluralist' approach (also called complexity thinking school) would arm the researcher with an appropriate perspective to understand the complexity of human organizations. 'Critical pluralism' is also an explicitly discussed paradigmatic stance in systems studies and is worth mentioning in brief in this section for clarification. Mingers (2001, pg.243) proposes critical pluralism in the context of arguments against paradigm (in)commensurability stating paradigms are "simply constructs of our thoughts" and there are less agreed ways to define paradigms. As discussed in section 3.8, paradigm (in)commensurability debate is not very common in complexity research literature, as a mixed-method perspective is very common in complexity based social science research (Cilliers, 2002; Phelps and Hase, 2002; Midgley, 2000; Zhu, 2011; Richardson and Cilliers, 2001; Richardson, 2008; Mitleton-Kelly, 2011). Complexity research is mainly debated on the lines of ontological incommensurability and a critical discussion on this was provided in section 3.8.

This research agrees with Richardson's (2008, pg. 17) proposition that "for a complex system there exists an infinitude of equally valid, non-overlapping, potential contradictory descriptions". Hence, to even begin to understand a complex system requires a multidimensional approach – a pluralist stance. He states that a pluralist position provides a theoretical foundation for many techniques such as group decision

making, bottom up problem solving etc. In other words, any method that emphasizes the importance of a multidimensional perspective in order to best understand the problem and to collectively act in order to solve it proposes a pluralist position. Mingers (2001) proposes designing a research methodology demands consideration of real, material, social and personal dimensions in context of the research and the tasks involved. He proposes an acceptance of pluralism at various levels such as philosophical, social and methodological but encourages critical stance grounded in the current social arrangements (Mingers, 2001). Mitleton-Kelly (2011, pg.3) also states that "many tools may be used, as long as they conform to the logic of complexity and take the multidimensional nature of organizational problems into account". Pluralism, moreover, is inherent in complexity thinking and undermines the notion of one meta-theory (Richardson, 2008) i.e. Theory of Everything (TOE). Such a school proposes that by working really hard, we could not only attain various laws of complexity but one ultimate underlying principle. Proponents claim coherence between various theories to form a fundamental language without any loss of detail. In contrast, a critical pluralist school of complexity focuses "more on what we cannot explain, rather than what can be explained – it is a concern with limits, and how we take those limits into account when trying to understand the world around us" (Richardson, 2008, pg. 21). It highlights the particular attitude towards a model rather than providing one sort of model over all others. Moreover, rather than using complexity thinking as a justification for 'anything goes' relativism, critical pluralism encourages the importance of critical reflection to ground our perception/representation/models in an 'evolving reality' (Richardson, 2008). The keywords for this school can be pluralism, open-mindedness and humility (Richardson, 2008, pg.21). Richardson (2008, pg.21) makes an important point that encourages the presence of various schools of thought (this is also encouraged by Kuhn) stating,

"Any perspective whatsoever has the potential to shed light on complexity (even if it turns out to be wrong, otherwise how would one know that it was wrong?), but at the same time, not every perspective is equally valid in a given context (try fixing your car with a prayer rather than a good mechanic)....Complexity thinking is an art which

encourages maintaining the tension between pretending to know something and knowing that nothing is known for sure".

The critical pluralist school encourages a critical approach and maintaining an ontological distance from ideas. The researcher has taken a multilevel approach from various stakeholders within the organisation to understand the various dimensions of the issue under consideration and for understanding the complex phenomenon. The critical pluralist approach encourages use of ideas as a guide or initiators of thinking about organizations, but insists they should not be the determinants of our thinking (Richardson, 2008). In the context of this research, it is believed that "complexity thinking is a particular attitude towards our ideas about the world and the world itself, not a particular tool/method, or even a particular language" (Richardson, 2008, pg.22). This research accepts Richardson and Cilliers' (2001) view that complex issues cannot be understood within finite limits and by granting a few methods higher superiority over others and, therefore, methodological pluralism is required and multiple methods have been adopted as discussed in chapter 4.

In summary, in this sub-section an attempt has been made to identify a paradigmatic position that best suits the current research. Accepting a position of 'thoughtful complexity thinker' to handle issues of ontological incommensurability, this research proposes that natural sciences and social sciences should be allowed to learn from and challenge each other. Critical pluralist approach helps understand the epistemological limits when one is trying to understand a complex system.

3.10. Research Philosophy Summary

This section (section 3.6) introduced the research philosophy. It began with an explanation of ontology, epistemology and paradigms. The notion of paradigm was discussed in the context of both Kuhn (1970) and Burrell and Morgan (1979). Kuhn's (1970) notion of paradigm change was also explained in detail and then reviewed in the context of Burrell and Morgan's view of paradigm change. Burrell and Morgan's stance on paradigms was discussed and criticized for promoting paradigm incommensurability, causing paradigm isolation. The section then moved on to appreciate various schools of thoughts under the complexity movement (see section

3.7). This section also highlighted the paradigms espoused by each of these schools. In further sections, paradigm debates claiming ontological incommensurability in the application of complexity science to social science were highlighted (see section 3.8). Further, in the context of paradigm for this research, critical pluralist approach was considered suitable for this research project as it helps appreciation of ones' limits (see section 3.9). Critical pluralism also acknowledges the difficulty of boundary selection and representation of a complex system which is discussed in detail in the next chapter (see Chapter 4 section 4.2.1.1. and section 4.2.1.2.).

3.11. Conclusion

This chapter is central to the entire thesis. The chapter emerged where the review of M&A and IJV literature ended (see Chapter 2). The M&A and IJV literature review identified the need for an alternative (complexity) lens that can embrace the inherent complexities of M&A and IJV. This need led to the endeavour to conduct in-depth review of complexity management literature. The chapter began with a general discussion on complexity theories and principles before stepping into the discussion on complexity management literature especially in the context of organizational change and theories such as dissipative structures approach and complexity adaptive systems approach to study organizations. After the review so far (from Chapter 1, Chapter 2 to Chapter 3 section 3.3), the chapter highlighted the relevance of complexity theories to understand M&A and IJV. It then provided the link between the research questions and objectives (see section 3.5) and highlighted the need to conduct an in-depth review of philosophical debates and issues in applying complexity theories to management research before this research project steps into the practical arena.

The further sections of the chapter carried out a sophisticated discussion on ontology, epistemology and paradigms. It acknowledged the various schools of thought under the complexity research umbrella and highlighted the paradigm debates in applying complexity sciences to study social sciences. The chapter ended with a discussion on the philosophical stance of this research project to approach the research methodology, which is discussed next.

4. Research Methodology and Design

4.1. Introduction

This chapter begins where the previous chapter on research philosophy ended. The previous chapter discussed the ontology and epistemology for this research. The main objective of this chapter is to develop a complexity research methodology based on the philosophical underpinnings of this research project (RO4). To this objective, this chapter provides the research methodology by drawing parallels between the complexity thinking school of thought and critical pluralist stance discussed in the previous chapter (see Chapter 3 section 3.9). In accordance with the critical pluralist research philosophy, this chapter explains why methodological pluralism is important in complexity research. It also highlights the difficulty of boundary selection and representation of a complex system in order to lay the rationale for case study research strategy. The chapter provides details on the case study research strategy in the light of the philosophical and methodological underpinnings of this research. This section also highlights how the case study research strategy conforms to the principles of complexity thinking and methodological pluralism. To support this, parallels are drawn between complexity thinking, methodological pluralism and case study research throughout the chapter.

4.2. Research Methodology

Thompson and Perry (2004) argue that the researcher's ontology in a particular paradigm drives the epistemology, which then drives appropriate research techniques and methodology for a particular research project. Chiasson *et al.* (2008, pg.33) state that "the research approach incorporates researcher beliefs, represents ontology and epistemology of the field, and impacts how research contributes to and shapes scientific paradigms". Therefore, the identification and use of research approaches is vital for the researcher and to the continual development of the research domain. This research aims to use complexity thinking to understand organizational change phenomena such as M&A and IJV.

Figure 4.1 highlights the links between the three constructs – complexity thinking (theoretical stance), methodological pluralism (methodological stance) and case study

approach (research strategy) based on the critical discussion to follow in the following sections of this chapter.
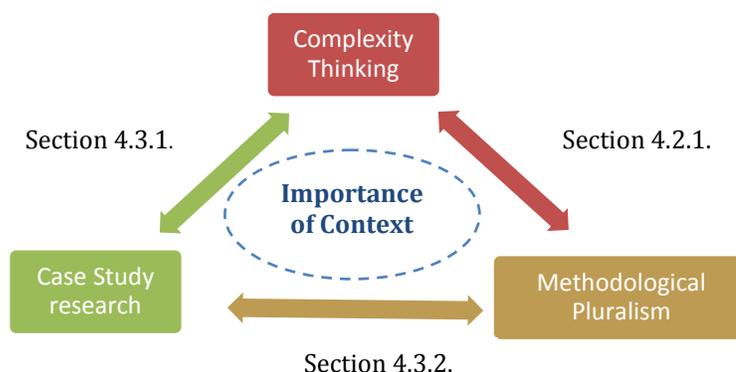
Figure 4.1 – Link between Complexity Thinking, Methodological Pluralism and Case Study Research

4.2.1. Methodological Pluralism and Complexity thinking

Phelps and Hase (2002) believe that the multidisciplinary nature of complexity demands mixed method approaches. Hase (2000, pg.2) also states that, "One of the more compelling theories that provides support for thinking about mixing methodologies in research is that of complexity theory". This claim is in accordance with House's (1994) argument, which states that the real world is complex and dynamic and one keeps discovering new layers of complex reality to explain the other related layers. Therefore, methodological pluralism has merit for investigating complex research questions. Midgley (2000) states that methodological pluralism mainly sets up a novel position that encourages learning from other paradigms, however, reinterpreted in our own paradigms. Other writers suggest that "it is through the flexibility of mixing methods that a greater understanding of complex issues is possible" (Phelps and Hase, 2002, pg.9). The emergent and complex nature of reality is constantly evolving and hence, requires use of diverse methods and theories to address various novel emerging ideas. Richardson and Cilliers (2001) also emphasize that complex issues cannot be understood within set limits by giving a few methods more importance than others. Therefore, methodological pluralism is required. Figure 4.2 below demonstrates the assertion that a complexity approach seeks methodological pluralism:
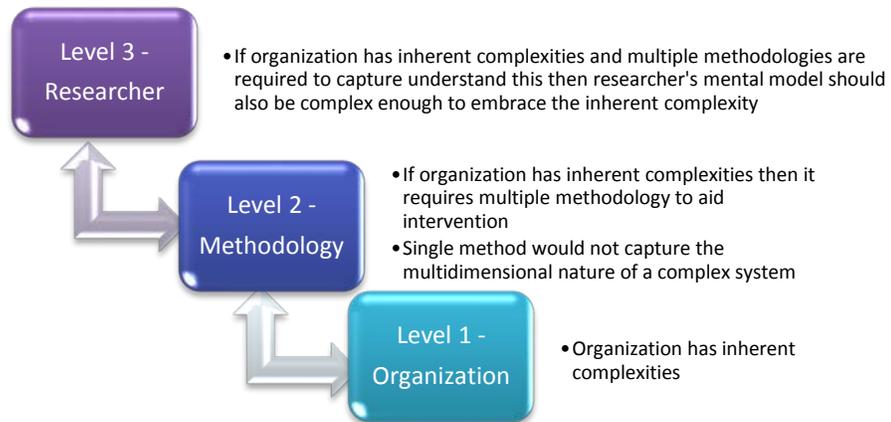
Figure 4.2 – Complexity at Various Levels of Research

The above diagram illustrates Tsoukas and Hatch's (2001) view that to understand a complex system firstly the mental model and language of the researcher (Level 3) should be complex enough and should be followed by a methodology that embraces complexity thinking to capture the multidimensional nature and multiple interactions at work in a complex system (Level 2). The complexity thinking school of thought, based on a critical pluralist research philosophy, which this research accepts, basically assumes that 'organizations are indeed complex systems' (Richardson and Cilliers, 2001, pg.8). Therefore, Tsoukas and Hatch (2001, pg.980) claim that 'one way of viewing organizations as complex systems is to explore complex ways of thinking about organization-as-complex systems". They claim that "complexity is not only a feature of the system we study; it is also a matter of the way in which we organize our thinking about those systems" (pg.979). This is called second order complexity. This research agrees with Casti's (1986, pg.149 cited in Tsoukas and Hatch, 2001, pg.986) claim that 'complexity is in the eyes of the beholder'. In other words, the complexity of a system as seen by the observer is directly proportional to the number of dissimilar descriptions (or explanations) of the system the observer can generate (Casti, 1986, 1994 in Tsoukas and Hatch, 2001). The greater the number of dissimilar descriptions (or explanations), the higher the complexity of the system. Therefore, Cilliers' (2002, pg.78) claim that "complexity is only an epistemological matter" fits with the explanation of complexity by Casti (1986), which emphasizes that complexity is not just an intrinsic property of the system, but it is also dependent on the observer's

description and interpretation (Tsoukas and Hatch, 2001). Hence, Tsoukas and Hatch (2001, pg.986) assert that "if an observer's language is complex enough the system at hand will be described in a complex way and thus will be interpreted as a complex system". In summary, the contribution of complexity science has been that through its principles it has drawn our attention to those features which could have been described before "but now have been brought into focus and given meaning" (Tsoukas and Hatch, 2001, pg.986). Regine and Lewin (2000, pg.7) also accept this, stating that "complexity science....has determined certain fundamental processes and characteristics of complex adaptive systems". These claims highlight how knowledge of complexity is interpreted and transmitted (i.e. epistemology) and this, in turn, determines the perceived complexity of a system. Hence, any epistemological attempt at a complexity approach should also be complex enough to appreciate the inherent complexities. Therefore, the above discussion draws an important interdependent link between methodological pluralism and complexity thinking.

4.2.1.1. Issue of Boundaries and Limits

In the above section, the discussion focused on Tsoukas and Hatch's (2001) view for the researcher's mental model (Layer 3) and the need for methodological pluralism for complexity research (Layer 2). However, drawing a boundary in order to study a complex system (in this case, an organization) is another issue which needs detailed reflection before one begins the process of choosing an appropriate research strategy. An attempt to understand a complex system would be difficult to initiate unless some sort of boundaries and limits are drawn. However, Cilliers (2000) argues that the problem with complexity theory is that it is not helpful in making specific predictions. He further elaborates on this, stating that in order to make specific predictions one needs a detailed understanding of a model of a complex system capturing all its relationships. Phelps and Hase (2002, pg. 3) claim, "Complexity theory acknowledges the inability to totally understand the whole through an understanding of the parts but rather aims to understand the whole by understanding the interaction of its parts". Cilliers (2000), however, argues that complexity is not compressible. He explains that one cannot determine the boundaries of a complex system as these systems are open. Even if we were to model such a system then "we have to model

each and every interaction in the system, each and every interaction with the environment – which is of course also complex – as well as each and every interaction in the history of the system. In short, we will have to model life, the universe and everything. There is no practical way of doing this" (pg.28). Therefore, Cilliers (2005) states that "the best representation of a complex system is the system itself and any representation of a system would be incomplete and therefore, would lead to incomplete understanding" (in Richardson, 2008, pg. 16). This claim matches with the definition provided by Casti (1994, pg.9) that "complexity is directly proportional to the length of the shortest possible description of a system" (cited in Tsoukas and Hatch, 2001, pg.985). For example, consider a series of numbers with a clear pattern and a series of random numbers; the latter cannot have a short description and in order to explain it, one needs to repeat the series again (Tsoukas and Hatch, 2001). This research acknowledges Cilliers and Richardson's arguments on the limits of knowledge and issues with the boundaries of complex systems. In order to deal with this issue of boundary and limits, this research proposes importance of 'context' which is discussed in the next section.

4.2.1.2. *Importance of Context*

Cilliers (2002, pg.80) and Tsoukas and Hatch (2001) both emphasize the role of the observer's interpretation by stating that "knowledge is that which has meaning, it is a result of a process of interpretation". Therefore, there exists a relationship between knowledge and the knowing-subject (observer). Cilliers elaborate on this from the view of complexity theory, by placing two arguments. Firstly, the knowing-subject is not an independent holistic identity which makes subjective claims. The subject is comprised of complex relationships with others and the world, which itself is contextualized. Secondly, complexity theory helps us understand the process by which meaning is acquired by things and concepts differently. Therefore, meaning is not just linked to a sign, but is an outcome of dynamic interaction between multiple meaningful components of a system. According to this argument, meaning is relational and there are infinite numbers of relationships at play at any particular point in time when something acquires a meaning. Since complex systems comprise of infinite relationships, the acquisition of meaning would be very much delayed if all the

relationships were to be considered. However, meaning is generated in real time. This implies that meanings are generated in context, where some factors are considered and others are not. In other words, Cilliers (2002, pg.81) claims that "for meaning or knowledge to exist at all, there have to be limits. We cannot comprehend the world in all its complexity". Hence, he summarizes that the knowing-subject has to be contextualized. This helps limit the number of factors to be considered and increases the possibility of meaningfulness. Such a view implies setting a boundary, which Cilliers (2002, pg.82) defines as something that "contains and constrains a system". For example, skin is a boundary of the human body, countries have boundaries etc. The problem is that in a complex system, all components are richly interrelated. Hence, there exists a relation between all the components of a system. In other words, the whole system can be said to be near to the boundary; i.e. in the case of a complex system, the boundary is "folded-in" (pg.82). One does not know when they are dealing with inside or outside of a complex system, as the boundary can be said to be there but not clearly marked (Cilliers, 2002). Hence, "the boundary does not confine a system, but constitutes the system" (Cilliers, 2002, pg.83). This brings us back to the impossibility of complete knowledge of a complex system and the inevitability of limits. In this regard, limit implies that "we can only know one side, that is, we cannot know what is beyond it" (Cilliers, 2002, pg.82). With regard to limits, Cilliers (2002) states that complexity theory may help us to deal with issues such as when we have reached the limits of our knowledge. He claims that one can argue that the world comprises only boundaries and no limits. Perhaps, limits lie in our understanding and describing of the world. "The limits are not transcendentally given, but a result of having to deal with complexity with finite means" (Cilliers, 2002, pg.83). Richardson and Lissack (2001, pg.44) argue that "we are forced to assume boundaries because of limited cognitive resources: our inherent human need to reduce the complex".

Richardson (2008) extends this discussion on practical lines by highlighting that it does not mean that one cannot have any sort of representation of a complex system – incompressibility is not an excuse to not bother at all. In fact, some sort of representation is desirable; otherwise the only option left once we accept the impossibility of the ultimate theory is to not have any theory at all, which is not a

sufficing option. He further states, "It is better to know something wrong rather than nothing at all. Knowing something and knowing how it is wrong is even better! Equally useful is knowing something that is wrong, but knowing why it is wrong" (pg. 16). Richardson (2008) agrees with Cilliers' (2002) claim about complex systems being incompressible. For example, he argues that the theory of individual psychology is more basic than the theory of team dynamics but not all team dynamics can be defined in terms of individual psychology. He terms this as 'incommensurable pluralism', which creates limited translations, reductions and simplifications but means that a Theory of Everything cannot be obtained. Therefore, like Cilliers (2002), he proposes the importance of context and criticality of matching theory with context. He states that 'context recognition' is not a difficult exercise as one needs to ignore some aspects of the situation of interest in the process of abstraction. However, matching theory to a context is problematic, as contexts that appear similar can be significantly different. Tsoukas and Hatch (2001, pg.998) also highlight the importance of context in complexity research by stating that "contextualized understanding contributes to second-order complexity" (pg.999).

The researcher acknowledges the limits of knowledge whilst working with complex systems and hence, takes Richardson's (2008) lead to draw some sort of representation with the help of case study research approach (see section 4.3). The researcher also supports Richardson (2008), Cilliers (2002) and Tsoukas and Hatch's (2001) claim about the importance of 'context' to deal with limits of knowledge and issues with the boundaries of a complex system. Therefore, this research places theoretical boundaries to focus on the neglected areas of M&A and IJV, i.e. human and cultural and communication issues (see Chapter 2 section 2.8). The practical boundaries are placed by focusing on the case study organization as the unit of analysis to approach the research questions and objectives (see Chapter 5).

4.3. Case Study Research Strategy

After addressing the ontological incommensurability and critical pluralist epistemology in the previous chapter (see Chapter 3 section 3.6), the above section drew parallels between complexity thinking and methodological pluralism. The importance of 'context' in complexity research (see section 4.1.1.1. and 4.1.1.2)

provided the strong rationale for choosing a case study approach. Methodological pluralism was proposed as an appropriate methodological choice to intervene into a complex phenomenon. Moreover, the need for second order complexity was proposed to understand the intrinsic complexity of the system. This demonstrated the significance of complexity in the research methodology to study a complex phenomenon. In this section, the chosen research approach, case study strategy, is described. Eisenhardt (1989, pg. 534) states, "Case study is a research strategy which focuses on understanding the dynamics present within a single setting". Yin (1994, pg.13) technically defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident". Eisenhardt (1989, pg.546) states that case studies are particularly relevant "in the early stages of research on a topic or to provide freshness in perspective to an already researched topic". The case study approach is particularly helpful in exploring 'how' and 'why' questions about the research phenomenon under consideration (Yin, 1994). Welch *et al.* (2011) also claim that case study is a popular qualitative research strategy. Even though Yin (1984), Siggelkow (2007) and Flyvbjerg (2006) emphasize the importance of critical and unique cases for research, Bengtsson and Larsson (2012, pg.6) agree with Flyvbjerg's (2006) argument that case studies provide opportunity for good narratives that "add to the general and academic understanding of social phenomena". Bengtsson and Larsson (2012, pg. 6) and Beamish and Lupton (2009) recommend more M&A and IJV researches using a case study approach. The common reasons for this are provided below:

- Case studies are particularly good for new theory building for a new contemporary phenomenon.
- Case studies provide fresh and new perspectives to a well-known and previously studied phenomenon.
- Case studies are helpful to study complex causal and contextual explanations and understanding for a contemporary phenomenon, i.e., how and why questions regarding, for example, multi-aspect and level interaction between joining organizations.

- Case studies provide deeper insights into management processes which are not possible using secondary data sources and surveys. In-depth studies help other firms which are considering or in the process of an IJV. Beamish and Lupton (2009, pg.89) argue that in-depth case study research can also add "substantial value for firms involved in JVs as they provide an opportunity to gain deeper insights into their own JV management processes and their effectiveness".

- The longitudinal strength of case studies can be utilized to better capture organizational processes over time, such as the combination and integration phases of M&A and IJV and helps researchers track development over time. Bengtsson and Larsson (2012, pg. 15) support using "the longitudinal power of case studies to capture the complex unfolding processes of combining and integrating two or more organizations that last for many years". They support idiographic studies over nomothetic studies to capture the richness "of interacting people, groups, organizations, and contexts over time that make up the complex processes of the pre- and post-combination phases of M&A" (pg.15).

- Case studies can also be used to test theory using critical, extreme and maximum variation cases.

- Case studies can also be used in their own right to provide illustrations and general understanding of a complex contemporary phenomenon.

4.3.1. Complexity Thinking and Case Study Research

The philosophical position for adopting case study research can be divided into positivist (Yin, 1994; Eisenhardt, 1989), interpretivist (Walsham, 1995) and complexity approaches (Anderson *et al.*, 2005). This research adopts an overlap of Walsham's (1995) guidelines on interpretivist case study research in general along with Anderson *et al.'s* (2005) complexity theory extensions for case study research in particular. Anderson *et al.* (2005) propose how case study design in conjunction with a complexity science perspective provides a new approach to study organizations. They claim that use of complexity theory in case study design can help in understanding the system of interest as an integrated whole. They claim, "Complexity theory is a useful companion to case study, because it simultaneously fosters an attitude of attention to emerging patterns, dynamism, and comprehensiveness while

focusing attention on defined system properties" (pg. 681). Walsham (1995) provides guidelines on interpretivist case study research which gives explicit importance to research philosophy (see Table 4.1).

Case Study Research Design	Chapters
Be explicit about your philosophical stance in writing	Chapter 3 Section 3.6 – Complexity Philosophy
Conduct empirical work choosing style of involvement i.e. 'outside researcher' or 'involved researcher'; gaining and maintaining organizational access and collecting data i.e. evidence from interviews for case study research	Chapter 5 Section 5.2 – Multiple embedded cases within a single case and Section 5.3 – Data collection
Specify use of theory. Choice of theory can be made at different research stages; can be used in lighter or tighter ways and is generally subjective	Chapter 2 – M&A and IJV literature Chapter 3 – Complexity theories Chapter 7 – Research discussion
Data Analysis	Chapter 5 section 5.4 – Data analysis
Construct and justify your contribution by justifying your methodological approach	Chapter 4 – Research methodology and design Chapter 8 – Conclusion and Contribution
Construct and write your contribution	Chapter 8 – Conclusion and Contribution
Mention ethical issues and tensions encountered such as confidentiality and anonymity; power relations and delivering bad news when working with organizations and reporting in the literature	Chapter 5 Section 5.5 – Research quality criteria and Section 5.6 – Research ethics

Table 4.1– Interpretivist Case Study Research Design (Walsham, 1995)

Moreover, the overall review of the M&A, IJV and complexity management literature has favoured case study research approaches. Bengtsson and Larsson (2012) argue that case study has been a dominant idiographic research method in management and organizational research including M&A research. Beamish and Lupton (2009) also encourage case study research to investigate the IJV phenomenon. The case study approach is an established approach in the study of complexity management literature as well (Mitleton-Kelly, 2011, 2006; Vidgen and Wang, 2009; Hammer *et al.*, 2012; Eoyang and Olson, 2001, Clayton, 2010; Lichtenstein, 2000; Chiles *et al.*, 2004; Plowman *et al.*, 2007; Houchin and MacLean, 2005). Hence, a case study approach is

the chosen research strategy for this research. In the next section, the link is drawn between case study research and methodological pluralism.

4.3.2. Methodological Pluralism and Case Study Research

Case studies can combine a variety of data collection methods such as archives, interviews, questionnaires and observations etc. Evidence can be qualitative and quantitative (Eisenhardt, 1989, pg. 534). Yin (1994) also elaborates the characteristics of case studies, which are concerned with exploring and understanding a phenomenon within a particular context using multiple methods for data, investigator, theory or methodological triangulation. He particularly states that evidence for case study may comprise documents, archival records, interviews, direct observation, participant observation and physical artefacts. Mingers (2001) suggests that mixing research methods is a way of moving from the original appreciation of the research study, towards action that encourages the implementation of the research findings. However, he cautions that mixing research methods requires skill to effectively manage the inherent complexity in multi-method research. Easterby-Smith *et al.* (2008, pg.421) state that "in management and organization studies, methodological pluralism has expanded as researchers have found and adopted different epistemologies, different theoretical traditions, and different practice traditions from both social sciences and humanities". In the next section, the details of the case study research design, data collection and data analysis are provided.

4.4. Case Study Research and M&A and IJV

Yin (1994, pg.19) states, "Research design is a logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions". However, Patton (2002, pg.223) states that 'there are no perfect research designs. There are always trade-offs. Limited resources, limited time and limits on the human ability to grasp the complex nature of social reality necessitate trade-offs". Therefore, he emphasizes that there exists no rule to inform the researcher how to focus a study. This depends upon the depth or breadth of the study, its purpose, the resources available, time available, and the interest of the stakeholders in the research. Hence, "these are not choices between good and bad but the choices among alternatives, all of which have merit" (Patton, 2002, pg.228). The

case study research design in the context of this research was drawn from the available theory and empirical research on application of complexity theory concepts to study organizations. The research design was adaptable to the emergent nature of a complex business environment. In the context of the M&A and IJV change stage, Beamish and Lupton (2009) argue that most of the IJV research is based on already established JVs due to lack of opportunity to conduct research in the formative stages. Cornett-DeVito and Friedman (1995) also argue that some important links are sparsely explored in M&A literature due to problems of timely access to M&A firms, and difficulty in obtaining organizational consent. Damanpour *et al.* (2012) focused on post-formation management of IJVs as they believe "management of an IJV is a dynamic process in which formation and post-formation phases cannot be neatly separated" (pg. 471). This can also be argued for M&As. Bengtsson and Larsson (2012) claim that most of the qualitative M&A studies in their sample focused mainly on the post-acquisition or post-merger integration process. Their findings also indicated that all the studies in their sample adopted "the study of the integration (or entire merger process) either retrospectively sometime after the formal M&A or longitudinal studies examining the unfolding of the M&A process. The time of study varied from some weeks after the formal M&A up to ten years after" (Bengtsson and Larsson, 2012, pg.8). Even though they argue that real time observations reduce the chances of post-rationalizations, most of the cases in their sample were reconstructions of the economic data collected in the past. Lauser (2010) collected retrospective perspectives from M&A managers on post-merger situations in a one-day workshop. On the matter of perspectives, Damanpour *et al.* (2012), therefore, argue that one partner respondent as the data source, is a justifiable option and has commonly been used. Beamish and Lupton (2009) also argue that most of the published IJV international research has more focus on the concerns of the foreign JV partner, which affects the availability of data and research sites. Nevertheless, it can be acknowledged that a balanced perspective from both partners is ideally recommended (Bengtsson and Larsson, 2012; Beamish and Lupton, 2009).

4.5. Conclusion

This chapter extends the previous chapter. After problem identification (see Chapter 1) and in depth study of M&A, IJV, complexity management and complexity literature (see Chapter 2 and Chapter 3), this chapter embeds the discussion on complexity thinking (critical pluralism) in the research methodology for this research project. The chapter highlights the importance of and carefully establishes links between methodological pluralism, complexity thinking and case study research approach. The chapter also highlighted the challenge of boundary selection and representation of a complex system. With the support of this chapter, the next chapter takes the thesis into the practical side of the research project. The next chapter provides the details of the research case and of the research design formulated to approach the research questions. The entire data collection and analysis process is described in detail.

5. Case Study

5.1. Introduction

This chapter moves this research project from its theoretical discussion (see Chapters 2-4) into its practical endeavour. The purpose of this chapter is to apply the chosen research methodology to the case study organization. The chapter provides the details of the case study organization. It entails the embedded sub-units of analysis (M&A Firm and IJV Firm) within the single case of Organization ABC. It also aims to collect and analyse the data in accordance with the critical pluralist (complexity thinking) philosophical underpinnings of this research project (RO5). With this aim, the chapter highlights how the research has made use of various data collection and analysis techniques for triangulation to improve the construct validity and reliability of the case study research. The data collection section entails the details on research interviews, participants and sample size. The data analysis section provides the coding framework and fine-grained details on the process of data analysis. The chapter ends with the discussion on research quality criteria and research ethics.

5.2. Multiple Embedded Cases within a Single Case

This study employs a single case study strategy which embraces multiple embedded case phenomenon, i.e. embedded case study design in order to explore the 'how' and 'why' questions about the major organizational transformations such as merger, acquisition and international joint venture in detail. Organization ABC has been through all of the three major transformations, i.e. merger, acquisition and international joint venture, providing an opportunity to understand all of them in detail in a single organizational setting.

5.2.1. The Case and Unit of Analysis

The two sub-firms, i.e. embedded cases, under the focus of this research are M&A firm (pseudonym) and IJV firm (pseudonym) both being part of parent organization ABC. The case study organization is ABC group of companies. It is a pharmaceutical engineering company in India in the fields of machine manufacturing and tooling and spares. It also represents global pharmaceutical companies in India and is an Asian

Leader in Tablet Compression Tools. Table 5.1 below chronologically displays the organization's growth history since its inception until the time of this research (i.e. 2012). Chronological displays have also been used by Plowman *et al.* (2007) and Chiles *et al.*, (2004) in their research of change and complexity. Table 5.1 portrays an exponential growth pattern that Organization ABC has been through since the joining in 1993 of its new CEO, whose vision was always to take the business global and explore avenues which seemed challenging to the industry (according to organizational archival records). At the time of this research in 2012, Organization ABC had its presence in terms of exports in 40 countries, two additional business divisions had been established, since inception, employee strength was nearing 400 and had two 45000 sq. ft. manufacturing facilities, seven branch offices all over India, eighteen international business association, one major acquisition of an Indian organization i.e. Organization PQR, one major 50-50 joint venture with an American Partner and one major internal merger of all business divisions. Hence, one can conclude that Organization ABC has been in a state of constant transformation and growth.

Year	Events/Actions
	Inception of the Business by the Father
1970s – 1980s	Inception and Expansion of Tooling Division by the owner of the company
	Son joins as a CEO of the organization
1990s	The current CEO – son of the existing owner of the organization joined the business, with a background in engineering and management degree. His ambition was as always to take the business global and explore avenues which seemed challenging to the industry.
	Blueprint of Exponential Growth from 1990s -2000s
1990s	Inception of new business division – Agency. The new Agency model of business which sold imported pharmaceutical machineries to the Indian market.
1990s	First business association with the South Korean partner by Agency division
1990s	Inception of new business division – Packaging to supply spares and accessories for the pharmaceutical and allied industry.
1990s	Moved to an "Integrated One Roof" manufacturing facility measuring 12,000 sq. ft, one of the largest units in Asia. **Employee strength crosses 100**
1990s – 2000s	Several other Business associations with Korean, European and Japanese companies. Machinery expansion, New offices across India, 200 imported machine installations by end of 2005, ISO Certification received, Participated in various Pharmaceutical Exhibitions at Korea, Germany and USA, **Employee strength crosses 200**
2000s	**Packaging Division acquires Organization PQR** Packaging Division diversifies in Food and Beverages sector, Further more business association with Korean, United Kingdom, European companies, Exports increases to 30 more countries, **Revision of organizations vision and mission**
2000s	**Merger of all business division with the aim of being 'One roof solution provider' for its customers** Acquires shares in an Italian Firm, New business association, New Corporate Offices across India Added a new state-of-the-art manufacturing facility admeasuring 45,000 sq. ft. **Employee strength crosses 300**
2000s	**Formation of new Joint venture with an American organization** Started a second state of the art production and assembling plant for packaging and agency division measuring more than 45,000 sq.ft.
2000s	Machinery Expansion, Export Expansion, Licensing Agreements, New Business associations, New Corporate Offices Cross India **Employee strength crosses 400**

Table 5.1 – Organization ABC Growth History (Data Source – Organizational Archival Records)

A renowned Indian newpaper published the case study of Organization ABC[1] demonstrating its consistent competence, growth and success story in the current scenario (data source – organizational archival records). This is an apt title as it can been seen in Table 5.1, Organization ABC has been prolifically growing and expanding though rapid business association, joint ventures and acquisitions in the ever changing and competitive pharmaceutical industry. As highlighted by Sparks (1999), joint ventures are more prevalent in industries with rapid changes such as pharmaceuticals, biotech, media, entertainment, airlines and high tech. However, Schuler *et al.* (2004) argue that in addition to developing capabilities through alliances, some firms compete and evolve through M&A. These literature claims are consistent with the experience of Organization ABC as it is has been exponentially growing through mergers, acquisitions, joint ventures and business associations. However, as stated in the initial discussion with the contact (i.e. General Manager finance – IJV Firm) in the Organization ABC, it was highlighted that in the process of rapid growth and transformation, Organization ABC has not formally evaluated and reflected upon its internal change management practices for these major transformations (initial discussions with the contact within the organization). This research project began with Organization ABC's interest in detailed exploration of its major transformations internally within the organization. The contact (i.e. General Manager finance – IJV Firm) expressed interest in understanding the perception of employees about these transformations and the emergent outcomes of these major transformations in the initial meetings. The researcher was seeking opportunities to study people aspects of mergers and acquisitions and their emergent outcomes. However, international joint venture was also added to the research project based on the collective decision of the researcher, research supervisor and Organization ABC, after obtaining access to the organization for research. Therefore, the focus of this research project is to understand major organizational transformations such as acquisition of Organization PQR (in the 2000s), subsequent merger of all internal business divisions by Organization ABC and international joint venture with an

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[1] Title withheld to protect anonymity of the organisation.

American organization (a couple of years after the acquisition) through a complexity lens.

The research context was divided into two embedded sub-units of analysis: M&A Firm comprising the Packaging and Agency divisions as a site to investigate the M&A and IJV Firm comprise the Tooling Division as a site to study the IJV. Both entities have been incorporated in the research project in order to understand major transformations like M&A and IJV from the lens of complexity rather than to make opposing claims (MacLean and Macintosh, 2011). The diagrammatic representation of the research focus areas and embedded sub-units of analysis within this single case are shown below (Figure 5.1):
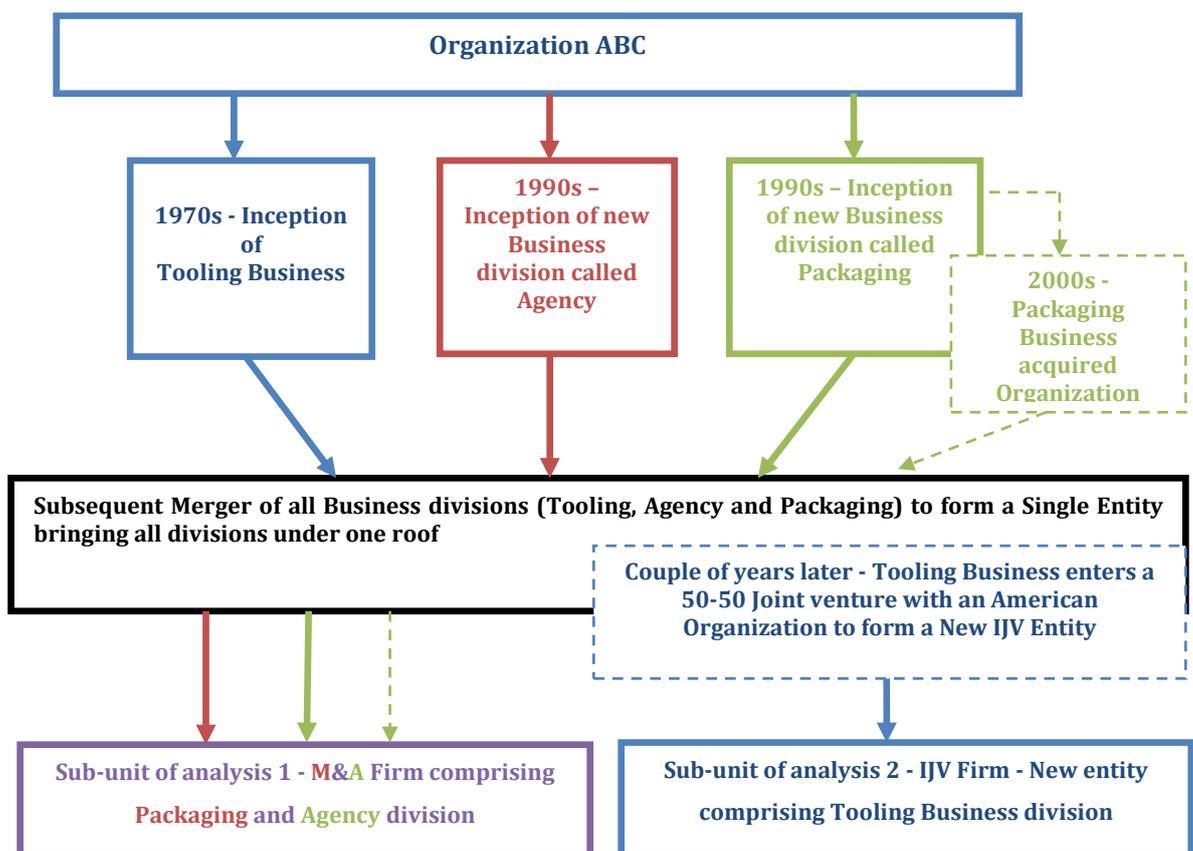
Figure 5.1 – Sub-units of Analysis for this Research

One of the drawbacks of a single holistic case design is that the entire nature of the study can shift as no logical sub-units are defined, which can lead to the research design no longer being appropriate for the research questions being asked (Yin, 1994). Therefore, Yin (1994) recommends an embedded case study design as an important device to avoid shifts during the course of research. Moreover, embedded case designs are helpful in examining a specific phenomenon in detail which is problem with holistic case designs as they are often abstract and lack

clear measures and data. Yin (1994) states that precautions must be taken before total commitment is given to single holistic case studies. He suggests incorporation of sub-units of analyses to obtain richer, complex and embedded designs which provide significant opportunities for extensive analyses. Organization ABC is the main, large and holistic unit of analysis with the two sub-firms M&A firm and IJV firm are the embedded sub-unit of analysis for this research project. The major phenomena studied in these two sub-units of analysis are acquisition of Organization PQR (in the 2000s), subsequent merger of all internal business divisions by Organization ABC and international joint venture with an American organization (a couple of years after the acquisition). Yin (1994), however, cautions that focus should not only be at the sub-unit level but attention should also be paid to large holistic units of analysis. Therefore, the research project focuses on the embedded sub-units of analysis but attention is also paid to the emergent outcomes at the holistic organizational level.

5.3. Data Collection

Embracing multiple embedded cases (M&A Firm and IJV Firm) within a single organization, this research employs both primary data such as interviews, meeting notes and email feedback from the managers and secondary data sources such as academic literature, and organizational archival data records. Yin (1994) proposes use of multiple sources of data collection i.e. data triangulation to improve construct validity and reliability of the case study research. Table 5.2 below represents the various data collection phases from initial contact made with the organization in Phase 1 to dissemination of findings and feedback to the company in Phase 4:

Data Collection Phase		
	Activity	**Dates**
Phase 1	Initial contact made with ten organization	February 2011 to August 2011 through emails and in-person meetings
	Initial contact made with the Organization ABC through email	August 2011
Phase 2	Finalization of the case and gaining approval from Organization ABC through email	August 2011
	Two Meetings to provide insights into the research project and to clarify the level of support, data requirement, interview access and the details of the forthcoming data collection phase.	February 2012 with the General Manager – Finance (contact) March 2012 with General Manager (Finance), one HR manager and one Assistant HR manager
	Archived documents and List of employees supplied by the organization	March 2012
Phase 3	Research interviews	October 2012 – December 2012
Phase 4	Executive Report submission with preliminary findings to the organization	May 2013
	Two presentations to report preliminary findings to the organization	Both in July 2013 with CEO of the organization, General Manager HR and Admin and General Manager Finance – Tooling Division (Gate Keeper), Director and COO - Agency division, and COO - Packaging division
	Email feedback from top management team (presentation attendees)	August 2013 – October 2013

Table 5.2 – Research Data Collection Phases

The initial contact was made with ten organizations from February 2011 to August 2011 through emails and in-person meetings (Phase 1). Each organization was sent a prior research invitation through email (see Appendix 1). The search ended after the access for research was approved by Organization ABC in August 2011 (Phase 2). After finalization of the case and email approval from Organization ABC in August 2011, the next step of Phase 2 was to meet Organization ABC's management to provide them with insights into the research project and also to clarify the level of support, data requirement, interview access and the details of the forthcoming data collection phase. To achieve this two meetings were conducted: 1) First in February-2012 with the General Manager (Finance) who was also the contact for the research project in the organization 2) Second in March-2012 with the General Manager (Finance), one HR manager and one Assistant HR manager. Detailed meeting notes were taken and typed within 24 hours after these meetings (Eisenhardt, 1989). The main outcomes from these meetings were – Firstly, the CEO and General Manager (Finance) of the organization requested the researcher to present the analysis to the Top Management Team (TMT) after the primary data collection and analysis (Phase 4).

This request was further modified (in October 2012) into providing an executive report and presentation to the TMT within six months from data collection (see Chapter 6 section 6.8 and Appendix 4). Secondly, one of the senior managers (E_711_0048, General Manager – IJV Firm) stated that the CEO of the organization would like to see what was wrong in the organization. He particularly requested at the time of interview that the researcher report key areas for improvement. Hence, this research argues that the role of researcher cannot fit into the duality of being an "outside observer" or being an "involved researcher" (Walsham, 1995, 2006). This research demanded a dual and emergent role of being an "outside observer" because of limited access into the organization and being an "involved researcher" at the time of data collection, analysis and dissemination of findings and feedback to the company (see Chapter 6 section 6.8). Walsham (2006, pg.321) states the benefits of close involvement "because the field participants see the researcher as trying to make a valid contribution to the field site itself, rather than taking the data away and writing it up solely for the literature". One of the interview themes was to inquire about the "key changes in the current scenario that employees and managers would like to see" and precise attempts were made to report the overall research findings with attention to main areas of improvement reported by both employees and managers to the TMT. This triangulation of expectations from the organization along with the researcher's dual and emergent role, her ontological and epistemological stance based on complexity emphasizing small changes can have big effects in the future and belief in emergence led her to make some action research type contributions (see Chapter 6 section 6.8) along with the main focus being on the case study approach. These decisions were taken in the light of the methodological pluralist approach and emergent nature of research.

5.3.1. Research Interviews

Phase 3 of the data collection comprised interviews (see section 5.2.1. Table 5.2 and Appendix 3 for interview protocol and consent). The primary data source consisted of 38 research interviews which were conducted from October 2012 – December 2012 at both M&A firm (19 interviews) and IJV Firm (19 interviews). Interviews have been the main source of data collection and were designed to approach the research questions. Walsham (1995) argues that interviews are the primary source of data in interpretive case study research. He claims that "it is through this [interview] method that the researcher can best access the

interpretations that participants have regarding the actions and events which have or are taking place, and the views and aspirations of themselves and other participants" (pg.78). Therefore, the primary data was collected by means of interviews. Kahn and Cannell (1957, pg.149) describe interviewing as "a conversation with a purpose" and semi-structured interviews have been a very common research method in complexity based social science research (Mitleton-Kelly, 2011, 2006; Vidgen and Wang, 2009; Hammer *et al.*, 2012; Eoyang and Olson, 2001, Clayton, 2010; Lichtenstein, 2000; Chiles *et al.*, 2004; Plowman *et al.*, 2007). Also, investigation of sensitive aspects such as stress, anxiety, confusion, cultural difference, lack of communication etc. common to M&A and IJV demand private, one-to-one and thoughtful discussion which would be difficult to achieve through a questionnaire or a group workshop. Some concerns and issues which would not surface in a group might emerge in a confidential conversation. Interviews also give an opportunity to explore Tsoukas and Hatch's (2001) claim of second order complexity. Participants' descriptions of complexity through the medium of language describe the intrinsic complexity of such major organizational transformations.

Interviews lasted for 45 minutes to 1 hour, with an average of three interviews conducted per working day subject to the availability of the individuals to be interviewed. Most of the participants were comfortable to speak in English, leading to 23 interviews being conducted in English; 13 participants did not know English or did not have sufficient fluency to speak in English and chose to speak in Hindi; only two participants preferred to speak in Marathi (the regional language of Maharashtra, Mumbai, India). The participants who chose to speak in English are not native English speakers. However, the researcher herself is from India and is fluent in English, Hindi and Marathi. This helped her understanding of the language and culture to understand what they were trying to say but has not altered what they meant. This was ensured through verbatim transcription and translation rather than correcting their English or assuming and altering what they said. Researchers' reflexivity and bias play an important role in research. Creswell and Miller (2000) state that in the research process the researchers elaborate on personal beliefs, values and biases that may shape their research. The Indian background of the researcher can be considered of significant strength in the context of this research. This helped her interpret the English spoken in India i.e.

Indian English, using an Indian version of the language. This would not have been possible for a researcher who did not have an exposure to the Indian usage of English. Walsham (2006) notes the linguistic difficulties of researching in India indicating; "Only a small proportion of Indians speak English, mainly the highly educated. There is no common other language either, although Hindi is widely spoken in the north of India" (pg.324). However, he claims that one should not be irretrievably prevented from talking to people by not speaking their language. All interviews were tape-recorded with individual and organizational permission and transcribed verbatim. The themes for the semi-structured interviews were primarily aimed at capturing:

1) Participants' experience of change (M&A or IJV)
2) Challenges faced and action taken to cope with those challenges
3) Current state of the organization (in 2012 i.e. at the time of data collection which is more than four years after M&A and IJV).

Based on the increased understanding during the interview discussion, interviews were also focused around the chronology, execution and content of these changes. The initial two interview themes were retrospective in nature because participants had to reflect on the acquisition of Organization PQR (in the 2000s), subsequent merger of all internal business divisions by Organization ABC and international joint venture with an American organization (a couple of years after the acquisition) . It is acknowledged that there are concerns around retrospective interviews; interviewees may forget or post-rationalize their interpretations (Poole *et al.*, 2000). However, these concerns were addressed in several ways to enhance the accuracy of the research: 1) Similar questions were asked to all the participants and from different levels within the organization which enabled the information provided by various participants to be compared and contrasted (Cardinal *et al.*, 2004; Brattstrom *et al.*, 2014) 2) In addition, rich information was also obtained from the organizational archival records to triangulate the data (Cardinal *et al.*, 2004; Brattstrom *et al.*, 2014) 3) The presentation of the preliminary findings to the TMT helped to validate and further triangulate the understanding and researcher's interpretation of these events (Brattstrom *et al.*, 2014; Mitleton-Kelly, 2006, 2011). At the end of primary data collection phase,

Phase 4 comprised dissemination of findings and feedback to the company (see section 5.2.1 Table 5.2 and Chapter 6 section 6.8).

5.3.2. Research Participants

A wide cross-section of employees and managers were interviewed to gain a multidimensional perspective to study the phenomena under consideration (i.e. M&A and IJV) (Mitleton-Kelly, 2011; Clayton, 2010). Employees and Managers were categorized based on the number of years of experience. This was done to interview both "employees and managers who experienced M&A and IJV" and to obtain experience of new recruits as well. A wide cross-section was chosen as it helps to capture most of the complex interactions at work. Two categories were drawn: 'Employees' and 'General Managers' in both the sub-units - M&A Firm and IJV Firm. The 'Employees' category comprised designations such as third-line managers, executives, assistants and workers, whilst the 'General Managers' category comprised COO, General managers and Managers. Table 5.3 below indicates the number of interview participants and Table 5.4 provides the broad data categories for analysis based on designation.

M&A Firm = 19 Participants			IJV Firm = 19 Participants		
Designation	No. of Interviewees	Out of	Designation	No. of Interviewees	Out of
COO	1	2	General Managers	4	5
General Managers	4	5	Managers	6	23
Managers	6	41			
Executives	4	50	Executives	5	50
Workers	4	23	Workers	4	129
Total	19	121	Total	19	207

Table 5.3 - Data Samples as per Designation for Interview Participants

Data Categories	Designation Clusters in M&A Firm	Data Categories	Designation Clusters in IJV Firm
1 COO	Chief Operating Officer	9 General Managers (IJVGM)	2 General Managers, 2 Deputy General Managers, 1 Assistant General Manager, 4 Senior Managers
5 General Managers (M&AGM)	2 Deputy General Managers, 1 Assistant General Manager, 1 Business Head, 1 COO, 1 Senior Manager		
5 Managers (M&AMGR)	3 First line managers, 1 Acquired Assistant Manager, 1 Deputy Manager	10 Employees (IJVEMP)	3 Assistants, 1 first line Manager, 2 Executives, 1 Union leader, 1 Senior Engineer, 2 Workers
8 Employees (M&AEMP)	3 Senior Executive, 1 Executive, 2 Acquired Workers, 1 Workers, 1 Assistant		

Table 5.4 - Data Categories for Interview Participants

5.3.3. Sample Size

Patton (2002, pg.244) states that "there are no rules for sample size in qualitative inquiry. Sample size depends upon what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, what can be done with available time and resources". In-depth data from smaller samples can be valuable if the cases are rich with information (Patton, 2002). He emphasizes that 'validity, meaningfulness, and insights generated from qualitative inquiry have more to do with the information richness of cases selected and the observational/analytical capabilities of the researcher than with the sample size" (Patton, 2002, pg.245). This research incorporates maximum variation sampling as the aim was to collect data from a wide cross section of employees. It also mainly incorporates purposeful random sampling in order to "select information-rich cases strategically and purposefully" (Patton, 2002, pg.243). The research was open to snowball and opportunistic sampling if such an opportunity arose during the data collection process. Using a purposeful random sampling approach, 38 semi-structured interviews were conducted from both the firms (19 from M&A Firm and 19 from IJV firm – see Table 5.3 and Table 5.4 for details).

5.4. Data Analysis

The process of data analysis has been interpretive in nature (Walsham, 2006) in which the empirical data was compared with the existing literature. Boeije (2010, pg.94) argues that "findings of the qualitative research always include interpretations of the research subject". Moreover, the actual analysis of the data can begin in the field itself as emphasised by Gibbs (2007, pg.3) - "analysis can, and should, start in the field". Gioia *et al*. (2013) also state that interviewing and analysis proceed together. Patton (2002) argues that data analysis ideas occur in the field itself, patterns take shape and themes begin to emerge. This can be done by taking notes of such emergent ideas during the field work. Patton (2002) emphasizes that such ideas are important as they highlight the emergent nature of qualitative designs and power of field-based analytical insights. Miles and Huberman (1994) state that there are various ways to make sense of qualitative data. The first step was to categorise data for analysis. This categorization at a broad level was at the firm level i.e. M&A Firm and IJV Firm (see Table 5.3 and Table 5.4). But in addition to this categorization, an overlap was found in terms of

information provided by participants on merger, acquisition and international joint venture in their interviews.

M&A Firm is an amalgamation of two business divisions, Packaging and Agency. It was the packaging division which went for an acquisition in the 2000s and the merger of both divisions took place in the subsequent year. Therefore, some participants provided information on both merger and/or acquisition as they were aware of or were part of the organization during the acquisition and/or the merger. In terms of the information provided by the participants in regard to what they had expericenced or were aware of, the venn diagram below (see Figure 5.2) has been drawn for the M&A Firm.
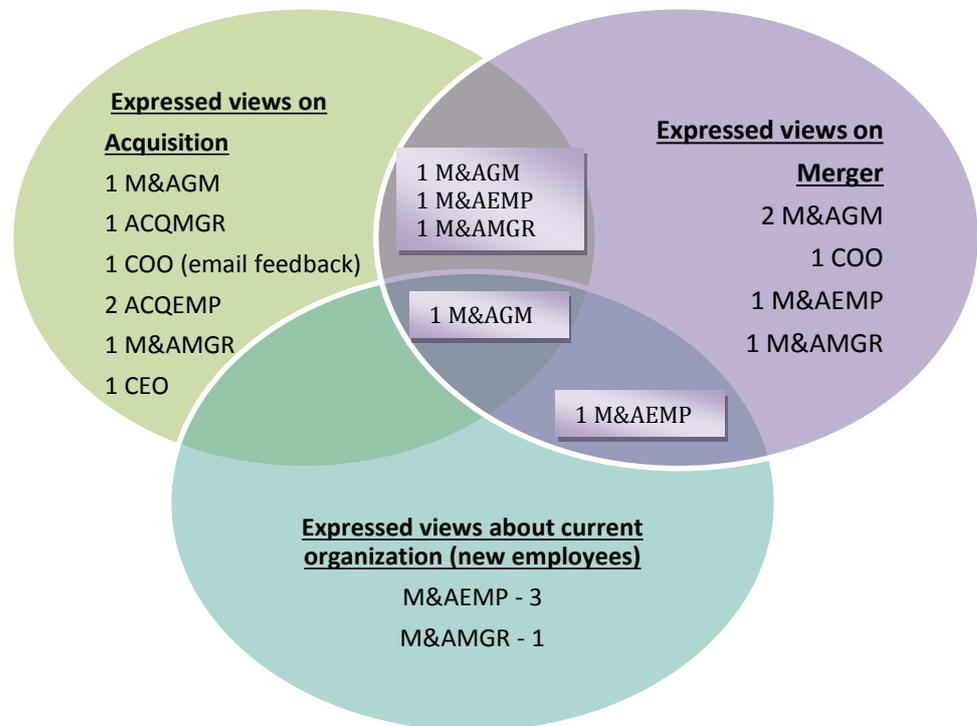
Figure 5.2 – Categorization of Views of Acquisition and Mergers Expressed by Participants

At the IJV Firm, all the participants provided information only about the IJV. Hence, in summary, Table 5.5 below illustrates the total number of participants who provided information on acquisition, merger and IJV during interviews.

Firms →	M&A Firm		IJV Firm
Views expressed / Designations	Expressed views on Acquisition	Expressed views on Merger	Expressed views on IJV
CEO	1	0	1
COO	1	1	0
General Managers	3	4	9 (General and Senior Managers)
Managers	2	2	
	1 Acquired Manager		
Employees	1	3	10
	2 Acquired Employees		
Total	11	10	20

Table 5.5 – Information Provided by Participants on Acquisition, Merger and IJV

This research project has adopted an eclectic combination of various research analysis methods suitable for qualitative data analysis for analytical triangulation to improve construct validity and reliability of this research. This research incorporated Gioia *et al.'s* (2013) approach proposing first and second order analysis, followed by Attride-Stirling's (2001) framework for thematic analysis and thematic networks and finally, Gioia *et al.'s* (2013) suggestion was used to construct data structure for ease of representation of qualitative research findings. Langley (1999) also proposes incorporating narrative/textual description strategy along with visual mapping strategies of the data (Plowman *et al.*, 2007; Chiles *et al.*, 2004). Figure 5.3 below summarizes the entire data analysis journey. The details of each step are entailed in the further sections.
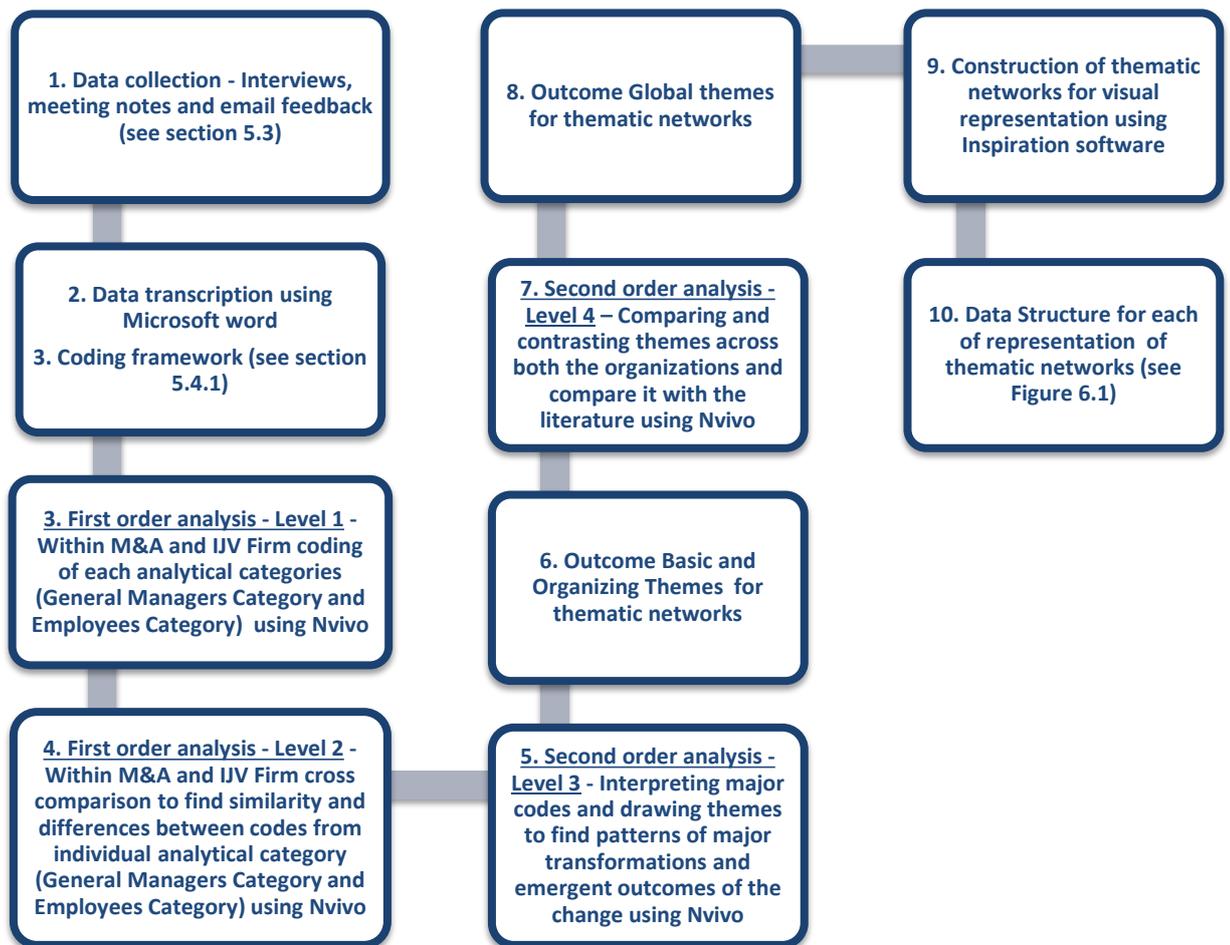
Figure 5.3 – Data Analysis Journey

The main guiding framework for this process has been Attride-Stirling (2001, pg. 391) framework for thematic analysis and thematic network approach (Figure 5.4). Thematic analyses have been adopted in the previous studies of organizational change and complexity literature (Varney and Vogel, 2014; Plowman *et al.*, 2007). The description of how this framework has been adopted for data analysis is detailed below:

ANALYSIS STAGE A: REDUCTION OR BREAKDOWN OF TEXT
Step 1. Code Material
(a) Devise a coding framework
(b) Dissect text into text segments using the coding framework

Step 2. Identify Themes
(a) Abstract themes from coded text segments
(b) Refine themes
Step 3. Construct Thematic Networks
(a) Arrange themes
(b) Select **Basic Themes**
(c) Rearrange into **Organizing Themes**
(d) Deduce **Global Theme(s)**
(e) Illustrate as thematic network(s)
(f) Verify and refine the network(s)

ANALYSIS STAGE B: EXPLORATION OF TEXT
Step 4. Describe and Explore Thematic Networks
(a) Describe the network
(b) Explore the network
Step 5. Summarize Thematic Networks
ANALYSIS STAGE C: INTEGRATION OF EXPLORATION
Step 6. Interpret Patterns

Figure 5.4 – Steps in Analyses Employing Thematic Networks (Attride-Stirling, 2001, pg.391)

In order to begin the data analysis process using thematic analysis and thematic networks, Attride-Stirling's (2001) framework suggests coding as the first step after data collection and transcription. Coding techniques have been rigorously used in all the phases of data analysis. A coding framework (see Figure 5.5) was devised to dissect the data into text segments based on Attride-Stirling's framework for thematic analysis and thematic network approach. Each interview transcript was then reviewed sentence by sentence to extract codes. The details of this process are described based on the guidelines from Gioia *et al.* (2013) that draws precise distinctions between first and second order analysis.

5.4.1. Coding Framework

| M&A Firm (19 cross sectional interviews) | IJV Firm (19 cross sectional interviews) |

First order analysis — Step 1 of Attride-Stirling (2001) Framework

Level 1 - Coding within each analytical categories (General Managers Category and Employees Category)

Level 2 - Cross comparison to find similarity and differences between codes from individual analytical category (General Managers Category and Employees Category)

Second order analysis — Step 2,3,4,5 and 6 of Attride-Stirling (2001) Framework

Level 3 - Interpreting major codes and drawing themes to find patterns of major transformations and emergent outcomes of the change

Outcome Basic and Organizing Themes

Level 4 – Comparing and contrasting themes across both the organizations and compare it with the literature

Outcome Global Themes

Figure 5.5 – Coding Framework for Data Analysis

First order analysis –Gioia *et al.* (2013) states that in first order analysis, the analysis stays close to the informant's terms. A similar concept is also proposed by Strauss and Corbin (1997) notion of 'open coding' and Saldana (2013) approach of 'first cycle of coding'. Gioia *et al.* (2013, pg.20) emphasize that in the first order analysis, "the sheer number of categories initially becomes overwhelming and it is not unusual to look up and conclude, 'I'm lost'". However, they claim it is important

to have this feeling at this stage because as the research progresses by seeking similarity and differences, a more manageable number of categories emerge. It is at this point, they claim, that the researcher acts as a knowledgeable agent who thinks at multiple levels answering, "What's going on here? Theoretically" (pg.20). In the context of this research, first order analysis is divided into two levels. At level 1, first order analysis involved identification and description of critical events during merger, acquisition and international joint venture where the interview transcripts were individually coded within each firm. Boeije (2010, pg.76) states, "Qualitative analysis is the segmenting of data into relevant categories and the naming of these categories with codes while simultaneously generating the categories from the data. In the reassembling phase, the categories are related to one another to generate theoretical understanding of the social phenomenon under study in terms of research questions". Coding was developed as a technique in the grounded theory approach but has increasingly been used for qualitative data analysis (Boeije, 2010). Charmaz (2006, pg.43) defines coding as "categorizing segments of data with a short name that simultaneously summarizes and accounts for each piece of data. However, Lewins and Silver (2007, pg.81) define coding as "the process by which segments of data are identified as relating to, or being an example of, a more general idea, instance theme or category." Miles and Huberman (1994, pg.56) state, "Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study". They can lead to an upfront category formation or a more complex pattern. Saldana (2013, pg.3) defines a code as "a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data". Strauss and Corbin (1997) distinguish three types of coding: open coding, axial coding and selective coding. However, Saldana (2013) provides an extensive list of 32 coding methods. A varied combination of holistic, initial, in-vivo, evaluation, emotion and versus coding was applied to the data for this research project (Saldana, 2013). Table 5.6 below provides a brief explanation of the coding methods employed in the data analysis process for this research.

Coding Methods
Holistic coding - It is a preparatory middle order approach to chunk the data before more detailed coding methods are applied.
Initial coding – It is an open-ended approach to data and is more suitable for interview transcripts.
In-vivo coding – These are participant inspired rather than researcher generated codes helping to preserve the something that stand out in the data.
Evaluation coding – This coding technique is mainly used to answer questions such as – What? So what? Now what? It helps assess change in participants' behaviours, feelings and knowledge.
Emotion coding – It is used to capture emotions that are recalled and/or experienced by the participants.
Versus coding – It is used to capture direct conflicting opinions between individuals, groups, processes, concepts etc.

Table 5.6 – Various Coding Methods for the Research (Saldana, 2013)

This research employed holistic and initial coding in the initial phase of the coding followed by in-vivo, evaluation, emotion and versus coding for further detailed analysis. Interviews were transcribed using Microsoft word and imported to NVivo Qualitative data analysis software for ease of coding and analysis. Walsham (2006, pg.325) states that "the software does not remove the need for thought, as the choice of themes remains the responsibility of the researcher". He claims such packages are a helpful method to link themes to particular text pieces in textual data. Saldana (2013) claims software is an indispensable tool for research with multiple participants. However, similar to Walsham's (2006) claim, Saldana (2013) also states that software does not code the data for the researcher; that task is still the researcher's responsibility.

After Level 1, at <u>Level 2</u> of first order analysis, codes within each interview category – "Employees" and "General Managers" - were cross-compared and contrasted for similarities and differences. This phase helped triangulate the claims and interpretations. Organizational archival documents, research notes obtained after the presentation and feedback received from the management through emails were also coded to obtain further triangulation and to increase the validity and reliability of the data. At this stage, as proposed by Gioia *et al.* (2013), the data analysis was very close to participant's terms, highlighting aspects such as

description of change (M&A and IJV), reasons for the change, feelings and reactions toward the change, post-integration issues and challenges and actions taken to cope with the challenges, effect of the change, current concerns and challenges, and key change recommendations provided by the interviewees. These comprised the premilinary research findings for the research project. At this stage narrative accounts of both M&A Firm and IJV Firm were also developed for writing the executive report for Organization ABC. These narrative accounts were further expanded and explored in detail to understand the dynamics of interactions and the processes in the data. Langley (1999) states that narratives are useful to organize longitudinal data, especially data based on a single case with rich information. As Plowman *et al..* (2007) state, moving back and forth within the narrative accounts helped the researcher understand organizational change and complexity, patterns relevant to organizational context and organizational actions taken and the outcome of radical change in a single organization. Chiles *et al.* (2004) also incorporated narrative strategy to understand organizational emergence in a single case study.

Second order analysis - Gioia *et al*. (2013, pg.20) state that in second order analysis, "we are now firmly in the theoretical realm, asking whether the emerging themes suggest concepts that might help us describe and explain the phenomenon we are observing". In this stage, Gioia *et al.* (2013) explain the decision is made on obtaining "2nd order themes" and "aggregate dimensions" giving rise to building a data structure which is a visual aid or graphic representation of the data. These aspects of '2nd order themes' and 'aggregate dimensions' are very similar to the 'basic themes' and 'organizing themes' concept proposed by Attride-Stirling (2001). She defines 'basic themes' as "lower order premises evident in the text" (pg.388) and 'organizing themes' as "categories of basic themes grouped together to summarize more abstract principles" (pg.388). In the second order of analysis for this research project, at Level 3 of the coding framework, the codes obtained at Level 2 were interpreted to refine Level 1 and Level 2 codes into basic and organizing themes (see Appendix 5).

At Level 4 of the coding framework, the basic and organizing themes from both M&A and IJV Firm were further compared, contrasted and interpreted at the organizational level and were compared with the literature to derive global themes which illustrated patterns of major transformations and emergent outcomes of the change. Attride-Stirling (2001, pg.388) defines global themes as "super-ordinate themes encapsulating the principal metaphors in the text as a whole". Gioia *et al.* (2013) proposes use of visual aids as a key component in demonstrating rigor in qualitative research, which overlaps with Attride-Stirling's (2001) use of thematic networks as a technique for visual representation. Thematic network diagrams followed by a data structure is constructed as a visual mapping strategy to demonstrate rigor in the data analysis process. Gioia *et al.* (2013) state that data structures can be used for its ease of display of the qualitative research findings. 'Inspiration' software was used to aid construction of thematic networks, where basic, organizing and global themes from NVivo were converted into thematic networks (See Appendix 5). Figure 5.6 below is a general diagrammatic structure of thematic networks. Thematic diagrams for each of the global themes are represented in the research findings chapter (see Chapter 6) and Appendix 5 provides the thematic network diagrams constructed during the analysis stage.
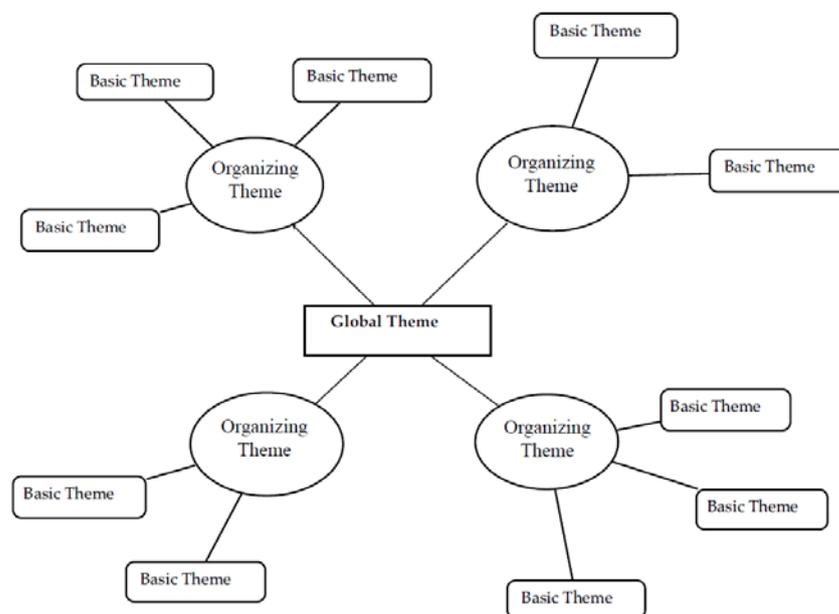
Figure 5.6 – Structure of Thematic Networks (Attride-Stirling, 2001, pg. 388)

The thematic network diagrams were then combined to form the data structure for ease of representation within the thesis (see Chapter 6 Figure 6.1). Plowman *et al.*

(2007) used a visual map to display a network of relationships amongst organizational change, context and actions. They used a visual network approach to represent the coded interview data to display a network of causal relationships among organizational change, contextual elements, and organizational actions, which was also the basis of their coding scheme. This method helped them improve the organization of their data and developed their analysis of the radical change at the case study organization within the context of complexity theory. Chiles *et al.* (2004) also incorporated visual mapping strategies with coding to depict theoretical insights, to generate causal network displays and to reduce and organize the data. This research combined Attride-Stirling's (2001) thematic analysis and thematic network approach along with Gioia *et al.*'s (2013) method of data structure construction as visual mapping strategies for this research project. The data structure for this research project is presented with the research findings in the next chapter (see Chapter 6 Figure 6.1).

5.5. Research Quality Criteria

The research was subjected to various quality criteria discussed in this section to ensure that it will stand up to external scrutiny and potential research bias toward interpretation due to researcher's ethnic background or previous work experience. The adoption of Gioia *et al.*'s (2013, pg.17) approach to seek qualitative rigor in qualitative research helped "the conduct of the research itself in a way that imposes qualitative rigor, but also encourages the presentation of the research findings in a way that demonstrates the connections among data, the emerging concepts and the resultant findings". This research employed the following types of triangulation to provide checks on the validity of this research (Chiles *et al.*, 2004; Plowman *et al.*, 2007; Yin, 1994).

1) The research relied on data triangulation from various sources such as interviews, meeting notes and email feedback from the managers, and secondary data sources such as academic literature, and organizational archival data records.

2) The research relied on analytical triangulation using multiple methods of analysis such as qualitative coding, report writing and visual mapping strategies.

3) The qualitative coding and visual mapping were verified with peers and colleagues (PhD colleagues and Presentation of findings at the Graduate School).

4) For the final checks, the analysis was presented back to the members of the management for confirmation on what was found, as well as additional insights and details. This presentation led to further confirmation of the findings and provided an enhanced picture of the retrospective accounts provided by interview participants.

The research adopts Symon and Cassell's (2012) criteria for qualitative research assessment:

1. Credibility: It aims to achieve fit between the realities constructed by research participants and researcher's reconstructions. This was achieved through presentation of findings to the members of the management (see Chapter 6 section 6.8 – Dissemination of findings and feedback to the company).

2. Transferability: It provides sufficient details about the research context so the readers of the research can decide the other contexts where the findings could be relevant (see Chapter 5 – Case study).

3. Dependability: It provides an audit process that tracks, accounts and explains any changes in the methodological process followed during the research. Any such changes have been documented in the case study (see Chapter 5 – Case study).

4. Confirmability: It provides clarity on the research conclusions (see Chapter 7 – Research discussion and Chapter 8 - Conclusion) by grounding them in the data (see Chapter 8 section 8.2 Table 8.1), elaborating where the data came from (see Chapter 5 section 5.3) and how they were transformed into findings (see Chapter 5 section 5.4).

The research further agrees with Bluhm *et al.* (2011) with respect to transparency as a quality criterion. They illustrate transparency in terms of "whether the article reported sufficient information in both data collection and analysis for the study to be replicated to a reasonable extent" (pg.1874). They emphasize that a high level of transparency removes the general notion of qualitative research as "second class research" (pg.1880-1881) and allows the readers to accurately understand how

the conclusions were drawn. Readers learn not just from both the research and the methodologies, but transparency aids comparison between various methods in several articles, in turn developing standard best practices in qualitative research. This research has aimed for a high level of transparency by ensuring the thorough description of data collection and analysis and linking them to the conclusions drawn.

5.6. Research Ethics

Saunders *et al.* (2007, pg.178) relate research ethics "to questions about how we formulate and clarify our research topic, design our research and gain access, collect data, process and store our data, analyse data and write up our research findings in a moral and responsible way." This research was conducted in accordance with "Hull University Business School Ethical Approval Policy" (see Appendix 2 – for Hull University Ethics Approval). The researcher has ensured the following in order to comply with the research ethics (Saunders *et al.*, 2007) –

- The nature of and reason for the research were explained to participants.
- The researcher obtained consent from the organization for the research and informed consent was obtained from interview participants.
- The researches ensured confidentiality and anonymity as promised so to the research organization.
- The researcher did not put unnecessary pressure on the participants.
- The researcher did not deceive the participants or the research supervisor in any way.
- Participants were not exposed to any risk, embarrassment, harm or any other material disadvantage.
- Feedback was given to the participant organization and their contribution acknowledged.

The researcher ensured that the contact in the organization (General Manager - Finance) was well convinced and informed about the research; as problem with the contact, can harm the research. Hence, the researcher ensured that the contact was a person who was interested in the research and was willing to help. Further issues can also arise in gaining access to the organization. Saunders (2007, pg.163-164) claims that gaining access for research can be a difficult task for several reasons.

a) Unwillingness of the organization to participate in a research due to the time and resources required.

b) The request for access and cooperation might not reach the right person who controls research access and makes decisions.

c) Lack of perceived value of the research in the context of the work of organization or the individual.

d) The nature of the topic because of its potential sensitivity; or because of concerns about the confidentiality of the information that would be required.

e) Perceptions about your credibility and doubts about competence.

Cornett-DeVito and Friedman (1995) stated that they found little empirical work on M&A and communication. They attributed this gap to problems in gaining timely access to the organizations and around obtaining consent. This research also experienced a similar challenge in obtaining organizational access. The nature of the research topic and the potential sensitivity and confidentiality around M&A and IJVs aroused difficulty in obtaining research access. This led to a seven month long process of contacting organizations and individuals for research access. The formal research consent of the organization that is the focus of this research was obtained in the form of an email approval (see Appendix 1).

5.7. Conclusion

This chapter shifted the research project from theory into practice. It highlighted the case study research design formulated to answer the research questions. It entailed the case study organization ABC with the embedded sub-units of analysis (M&A Firm and IJV Firm). In accordance with the critical pluralist (complexity thinking) philosophical stance of this research project, the researcher carefully ensured data and analytical triangulation for construct validity and reliability of this research project. The data collection relied on multiple sources of evidence such as interviews, meeting notes and email feedback from the managers and secondary data sources such as academic literature, and organizational archival data records (see section 5.3). The entire data collection and analysis process was described in depth. The data analysis process relied on multiple techniques such as qualitative coding (Gioia *et al.*, 2013; Saldana, 2013), visual mapping strategies for

thematic analysis and thematic network approach (Attride-Stirling, 2001) and data structures approach (Gioia *et al.*, 2013) (see section 5.4). The executive reports aided narrative/textual description of events and interpretation (Langley, 1999). The presentations to the management and consecutive email feedback from the management helped validate the understanding and interpretation of the data. The overall outcome of this process was the research findings which are reported in the next chapter.

6. Research Findings

6.1. Introduction

The aim of this chapter is to present the research findings. Figure 6.1 provides the data structure of the research findings. These findings are the outcome of the implementation of the data analysis procedures described in the previous chapter (see Chapter 5 Section 5.4.). The findings highlight the change management practices of major transformations such as merger, acquisition and international joint venture at Organization ABC and their emergent outcomes in the current scenario.   These findings are discussed alongside their complexity theory interpretations, especially the dissipative structures approach to organizational transformations (see Chapter 3 – section 3.2.1.1. and Table 3.2). The research findings have been data driven and inductive; however, a deductive approach is incorporated where patterns observed in the data are matched with the extant theory, i.e. in this case, complexity theory literature. A similar approach is adopted by Chiles *et al.* (2004) in their work on emergence of Branson, Missouri's Musical theatre. The four dissipative structures constructs elaborated by Lichtenstein and Plowman (2009) with reference to the work of Lichtenstein (2000); Chiles *et al.* (2004); Plowman *et al*. (2007); and Lichtenstein and Plowman (2009) have been used to critically interpret the research findings from a complexity theory lens (see Chapter 3 – section 3.2.1.1. and Table 3.2). Finally, Figure 6.1 provides a map of this chapter with the numbers of the sections where these findings are elaborated. Each section contains network diagrams indicating the global, organizing and basic themes for each complexity construct.

Each of these themes is supported with the percentage of participants who expressed the relevant views, and illustrative quotations. This is done to give a sense of the variety and weight of opinion in terms of how many participants made a particular point to support the qualitative findings and interpretations and mainly to illustrate how views were shared amongst various data categories (e.g. employees, managers, general managers etc.). Considering that in complex system small events can have big effects, important views or opinions shared by even small percentage of participants have been considered in the data analysis process (For example – 'Proving someone else's dream' invivo code in Table 6.27 -

Individual level - Emergent Unintended Outcomes of M&A was shared by only one participant).

The chapter below provides the views expressed as the subjective world view and judgements of the participants. These are perceptions, not necessarily facts and these stereotypical views feed into the shadow system of the organisation. These views expressed by various participants are not necessarily accurate. The researcher mentioned this subjectivity explicitly when presenting her findings to the company. The views were presented to make participant perceptions (or misinterpretations) overt to inform managerial decision making and to aid deeper understanding of these emergent worldviews at times of M&A and IJV in both theory and practice.

Basic Themes	Organizing Themes	Global Themes
a) Reasons for M&A and IJV; b) Difference in awareness; c) Informal channels of awareness; d) Formal communication e) Informal communication	6.2.1. Strategies for Growth (a) 6.2.2. Change Awareness (b, c) 6.2.3. Strategic Communication (d, e)	6.2. M&A and IJV as Disequilibrium state
a) Positive, Negative and Neutral emotions b) People, Product and Location challenges; c) Queries and Concerns	6.3.1. Patterns of Emotions (a) 6.3.2.1. Individual level Challenges (c) 6.3.2.2. Organizational level Challenges (b)	6.3. Role of Amplifying actions/ Positive Feedback Dynamics
a) Management actions for organizational and individual level challenges; b) Individual levels actions for learning	6.4.1.1. Individual level actions (b) 6.4.1.2. Organizational level actions (a)	6.4. Recombination Dynamics / Self-Organization – Part 1
a) Positive/favourable organizational level outcomes b) Positive/favourable individual level outcomes	6.5.1. Organizational level emergent outcomes (a) 6.5.2. Individual level emergent outcomes (b)	6.5. Emergent system-wide outcomes
a) Negative/Unfavourable organizational and individual level outcomes b) Current Product and process-related challenges c) Current People, communication and culture-related challenges	6.6.1. Emergent negative outcomes of M&A and IJV (a) 6.6.2. Ongoing Internal challenges (b, c)	6.6. Role of Stabilizing Feedback/Negative Feedback
a) Product and process-related b) People and culture-related change suggestions for M&A and IJV Firm	6.7.1. Change Suggestions for M&A Firm (a, b) 6.7.2. Change Suggestions for IJV Firm (a, b)	6.7. Recombination Dynamics / Self-Organization – Part 2

Figure 6.1 – Data Structure of the Research Findings

In the following sections, each of these global themes along with organizing and basic themes is elaborated in detail with the related research analysis outcomes.

6.2. M&A and IJV as Disequilibrium States

Major transformations such as M&A and IJV are fluctuations that create a disequilibrium state in the organization. As proposed by McKelvey (2004a, 2004b) activities/events occurring "outside the norm" for each context push the system into a highly dynamic state. Lichtenstein (2000) highlights that in the context of social systems, energy fluctuations are represented by new activities or events that disrupt the current order and provide energy for the new emergent order. M&A and IJV are new activities that push the organization "outside the norm", disturbing the current order of the organization and pushing it into a highly unstable disequilibrium state. These changes also provide the energy for creation of a new order in the organization. The sustenance of this dis-equilibrium state for an extended period of time seems to be a requisite aspect of emergent order creation, according to Meyer, Gaba, & Colwell (2005). Lichtenstein and Plowman (2009) also agree, citing Goldstein (1986), Prigogine and Stengers (1984) and Schieve and Allen (1982), and stating that creation and maintenance of a dis-equilibrium state is a central component of emergence based on complex adaptive systems theories. Chiles *et al.* (2004) call this phenomenon 'fluctuation dynamics'. They propose that "order through fluctuation" is at the core of the dissipative structures model proposed by Prigogine and Stengers (1984). During major organizational transformations like M&A and IJV, the disequilibrium state is maintained and sustained through the post-integration or change implementation phase. In the context of Organization ABC, the organizing themes, 'strategies for growth' at the organizational level and 'change awareness' and 'strategic communication' at the individual level created the disequilibrium conditions. These themes are discussed in the following sections (see sections 6.2.1., 6.2.2 and 6.2.3.). These basic and organizing themes create an individual level disequilibrium in the organization whilst the organization itself is creating/introducing disequilibrium/perturbations within the organization, through transformations such as mergers, acquisitions and joint ventures to compete in the external wider environment. Figure 6.2 is a diagrammatic summary in the form of a thematic network for the global theme –

'Disequilibrium conditions'. The organizing and basic themes are discussed in the following sections.
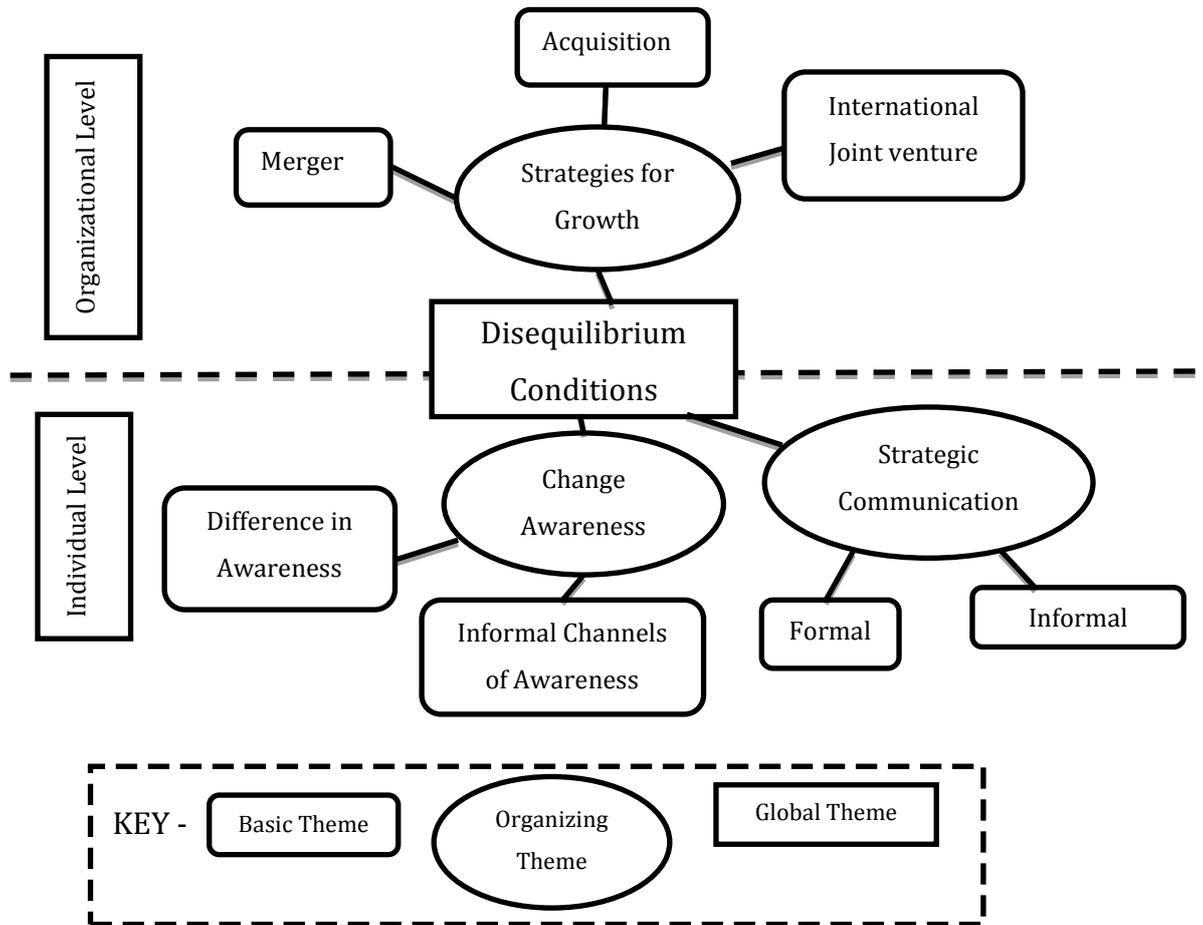
Figure 6.2 - Thematic Network for Global Theme – 'Disequilibrium Conditions'

6.2.1. Strategies for Growth

Table 6.1 highlights the organization's growth history since its inception until the time of this research (i.e. 2012). Chronological displays are recommended by both Chiles *et al.* (2004) and Plowman *et al.* (2007) in their change and complexity research. This table portrays the exponential growth Organization ABC has undergone from 1974-2012. Table 6.1 highlights that Organization ABC has been prolifically growing and expanding through rapid business associations, joint ventures and acquisitions in the ever changing and competitive pharmaceutical industry. As stated by one of the employees from the M&A Firm, *"Actually I have seen changes at Organization ABC every year. I can't say every year, in fact every six months, there is some change or the other happening in Organization ABC. They want to keep their employees in good surroundings so they keep on coming up with new-new things." (D_711_0023, Senior Executive – M&A Firm).*

Year	Events/Actions
	Inception of the Business by the Father
1970s – 1980s	Inception and expansion of Tooling Division by the owner of the company
	Son joins as a CEO of the organization
1990s	The current CEO – son of the existing owner of the organization, joined the business, with a background in engineering and management degree. His ambition was as always to take the business global and explore avenues which seemed challenging to the industry.
	Blueprint of Exponential Growth from 1990s – 2000s
1990s	Inception of new business division – Agency. The new Agency model of business which sold imported pharmaceutical machineries to the Indian market.
1990s	First business association with the South Korean partner by Agency division
1990s	Inception of new business division – Packaging to supply spares and accessories for the pharmaceutical and allied industry.
1990s	Moved to an "Integrated One Roof" manufacturing facility measuring 12,000 sq. ft, one of the largest units in Asia. **Employee strength crosses 100**
1990s – 2000s	Several other Business associations with Korean, European and Japanese companies. Machinery expansion, New offices across India, 200 imported machine installations by end of 2005, ISO Certification received, Participated in various Pharmaceutical Exhibitions at Korea, Germany and USA, **Employee strength crosses 200**
2000s	**Packaging Division acquires Organization PQR** Packaging Division diversifies in Food and Beverages sector, Further more business association with Korean, United Kingdom, European companies, Exports increases to 30 more countries, **Revision of organizations vision and mission**
2000s	**Merger of all business divisions with the aim of being a 'One roof solution provider' for its customers** Acquires shares in an Italian Firm, New business association, New Corporate Offices across India Added a new state-of-the-art manufacturing facility admeasuring 45,000 sq. ft. **Employee strength crosses 300**
2000s	**Formation of new Joint venture with an American organization** Started a second state of the art production and assembling plant for packaging and agency division measuring more than 45,000 sq.ft.
2000s	Machinery Expansion, Export Expansion, Licensing Agreements, New Business associations, New Corporate Offices Cross India **Employee strength crosses 400**

Table 6.1 – Exponential Growth of Organization ABC (Data Source – Organizational Archival Records)

Table 6.2 below highlights the analysis outcome for the organizing theme – 'strategies for growth'. The findings presented in the table highlight the reasons provided by the participants for opting for M&A and IJV as strategies for growth, based on the percentage of the participants expressing this view.

Strategies for Growth	
Acquisition (Out of 8 in total of 1 Chief Executive Officer - CEO, 1 Chief Operating Officer - COO, 3 General Managers and 3 Managers)	
Technology	25%
Up for sale	25%
Good deal	12.5%
Merger (Out of 7 in total of 1 COO, 4 General Managers and 2 Managers)	
Customers	57%
Living up to Accelerated Growth Value	29%
Family Relationship	14%
Group synergy and size of the company	29%
Ease of Co-ordination	29%
International Joint venture (Out of 10 in total 1 CEO and 9 General Managers)	
Market Reach	80%
Technology Sharing	50%
Learning	40%
Mutual Benefit	40%
Competition	30%
Growth	30%
Industry demand	30%
Strategic move	30%
Go it alone not being effective	30%
Cost effectiveness	20%
Long term perspective	20%

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.2 – Strategies for Growth

'Technology' and the target being 'up for sale' came up as important reasons to go for acquisition. The analysis has highlighted that the parent organization ABC expanded into providing high technology pharmaceutical packaging solutions to the pharmaceutical industry. This led to the formation of the Packaging business division in 1998. Initially, the business division manufactured only one machine. Hence, in order to serve the growing demands of the customers and to complement the products already being sold in the market, the parent organization was scouting for acquisition opportunities to enhance the existing product range. The search ended when a 36 year old pharmaceutical Organization PQR was up for sale. This led to the acquisition of Organization PQR by Organization ABC in 2000s. This provided Organization ABC with an opportunity

to acquire and re-engineer an already proven-technology to reposition it in the market. According to the archival organizational records,

> *"This (reenginnering) exercise took time to get the machines standardized and create repeatability for the products. But Organization ABC's manufacturing division had successfully achieved this up-gradation."* *(Archival Company records – Growth Story of Firm ABC).*

The acquired organization PQR was a small manufacturing organization with a few workers, administrative staff and a single owner. From the perspective of a member of the acquired firm, the reason for acquisition was the good price that the owner was getting from the deal and his acceptance that he would be unable to handle the firm due to workers' improper attitudes. This initial acquisition in the early phases of development of the Packaging division provided a boost to the manufacturing arm of Organization ABC. As stated by one of the managers,

> *"Yeah, I was there actually during acquisition. We started as [old company name] then we acquired Organization PQR. At that time we had only our own product in hand, we did not have any technological know-how of the machines, nothing...We acquired that company." (A_711_0017, Manager – M&A Firm)*

In the context of the merger that took place in the subsequent year after the acquisition, the analysis has highlighted that in 2000s, the parent firm was trying to script its mission and vision statement. The outcome was the mission statement - "Engineering solutions for Healthcare" and a three point vision statement – 1) One roof solution 2) Global presence 3) Accelerated growth. The analysis brings forward that Organization ABC pursued its 'accelerated growth' and 'global presence' vision through rapid national and international collaborations in the form of business ventures, joint ventures and acquisitions (see Table 6.1 - Exponential growth of Organization ABC). However, Organization ABC wanted to ensure its commitment to providing a "One Roof Solution" to its customers (Archival Company records – Growth Story of Firm ABC). This vision was accomplished through an inter-divisional merger in the 2000s.

In that year, Organization ABC decided to merge all its business divisions to become a 'one stop solution provider' for its customers. Various reasons were highlighted in the interview data for this merger as shown in Table 6.2, but 'Customers' were the important reason for this merger as highlighted by the participants. One of the general managers commented that customers' trust, confidence and demands made the 'one roof solution provider' concept possible.

> *"This demand of the customers to have more machines to be handled by us has probably put this concept of one roof solution in the mind of maybe RLM Sir or MRM about 8-9 years ago. Slowly they caught up and the number of machines began to gather. Different types of machines or different applications started to come in. Then at some point of time almost all the products came up. It was a gradual process." (A_711_0047, Business head – M&A Firm)*

The merger was customer focused, as illustrated by many managers in the interview data. As Organization ABC has three business divisions, each with its own set of products and services, the merger helped prevent customers from misidentifying one business division of Organization ABC with another, e.g. packaging with the agency division. It provided the opportunity for increased customer approachability. It helped the organization to position and advertise itself better in advertisements and exhibitions. As highlighted by one of the managers, customer confusion was reduced by this unified approach of providing solutions under one roof.

> *"The customers are the same for all the three companies, more or less... It used to happen many a time that when we moved into a field, we used to find that another team was also present in another department at the same time. But somewhere down the line the decisions get tapped down to a single entity. That entity or that department used to create confusion about whom to I speak to because at one time there would be about 6-7 ABCites from different teams present at the same customer location or he might have a concern and he would be confused as to whether to speak to x, whether to speak to y, whether to speak to z for a solution. This was the concern expressed by all the customers to us. They said that it becomes too confusing or rather it becomes too taxing for them to understand whom they should we speak to in ABC. So*

we thought, Yes this is a good idea, where we could keep one person as a contact point for the customers." (D_711_0025, Senior manager – M&A Firm)

Internally, one of the managers felt that one roof provides family relationship. He termed it as *"the hardware of the soft part of the integration what is talked about" (A_711_0047, Business head – M&A Firm).* Also, the merger provided ease of co-ordination within the organization. Externally, it demonstrated *"group synergy to the external world"* (A_711_0052, COO – Agency division) and portrays a bigger organizational image to customers.

In the context of IJV, 'Market Reach' surfaced as the most important reason for the organization to go for IJV with the American partner firm. A couple of years after the acquisition, an American organization, the largest tooling manufacturer in the world, was looking for an opportunity to expand its business beyond the American and the European market. This was an ideal foil considering that Organization ABC was also looking to expand its business into the lucrative American and European markets. Hence, IJV Firm was formed as a result of the joint venture between an engineering company catering to the pharmaceutical sector in India with an American company in the same sector. The Indian firm is considered to be in the number one position in India and the joint venture took place with a global leader in the same industry from America. As highlighted by one of the managers, both the firms are family-oriented businesses and have been in business for a long time, and their ideologies were consistent, which was conducive to a venture. One manager described the formation of the IJV as a bold decision as this change took place immediately after the merger in the previous year and later a demerger for the IJV formation in the consecutive year. The tooling division of the organization came under the new brand name as a result of this IJV (referred to as IJV firm). The rest of the organization formed a separate entity (referred to as M&A firm). Currently there are two organizations under Organization ABC's banner – IJV Firm (comprising Tooling business division) and M&A Firm (comprising Packaging and Agency business divisions). Whilst reflecting on the history of the firm, many employees and managers expressed pride in the owner's vision and the firm's journey from a small-scale gala company to a large scale international firm. From a managerial perspective, the joint venture took place at the "right time" as part of a

strategic move with a long term perspective. As commented by one of the managers,

> *"That phase was one where starting a new division would take you much longer than going for a joint venture." (E_711_0032, Assistant general manager – IJV Firm)*

However, an individual-level analysis of these major transformations brings forward the change management practices of Organization ABC. The detailed analysis of the three major transformations - merger, acquisition and international joint venture at Organization ABC has brought forward a complex pattern highlighting how these changes are managed and perceived internally. Retrospective accounts received from interview participants highlighted organizing themes such as 'Change Awareness' and 'Strategic communication' as important aspects contributing toward disequilibrium in the initial phases of major transformations. These organizing themes - 'Change Awareness' and 'Strategic communication' are discussed below.

6.2.2. Change Awareness

Lack of involvement in decision making was highlighted by both 29% of general managers (out of 14 in total - 1 COO, 5 M&A general managers and 9 IJV general managers), 22% of employees (out of 23 in total from 5 M&A first line managers, 8 M&A employees and 10 IJV employees) and also by one of the two COOs at Organization ABC. Some of the employees highlighted in the context of both M&A and IJV, higher management was more aware of these major changes and decision making was mainly in their hands. In the context of decision-making, one of the managers supported this assertion by clearly emphasizing that *"the basic decisions are limited to 5 to 6 people only, every small decision to bigger decisions in production." (E_711_0038, Deputy Manager – IJV Firm).* One of the employees also confirmed that *"all these things happen at top level so it does not reach us." (E_711_0040, Senior Engineer – IJV Firm).* A few of the general managers (44% out of 9 at IJV Firm) confirmed that things are kept in *"closed cabins" (E_711_0038, Senior Manager – IJV Firm)* in the initial stages of these major transformations. This is in accordance with the vivid claim made by one of COOs from the M&A Firm about how management does not seek what to do.

"We don't actually seek what to do; we actually tell what is required to be done. We are very humble in telling, we are not aggressive. We listen, we try to convince and if somebody doesn't get convinced we tell them to continue to the extent they can and tell us if they are not able to go on for some reason. So it starts off something like this. Most of the groups adapt to the situation and some of them come up with some kind of negative situation, so that takes a little toll of time to counsel and some try and bury their points and after some time it gets withered away." (A_711_0052, COO – M&A Firm)

Therefore the above analysis has highlighted that all the three transformations (i.e. M&A and IJV) at Organization ABC were surrounded by confidentiality, and secrecy, with little or no information available to the employees. This led to the other two basic themes associated with the change awareness organizing theme: 'Difference in Awareness' and 'Informal Channels of Awareness'. Table 6.3 below highlights participants' views on difference in awareness between management and employees in all the three major transformation accompanied with the exemplary quotations.

Difference in Awareness	
Lack of awareness and communication amongst employees	
Higher Awareness Amongst Management	*44% IJV General Managers (out of 9), 100% Acquired Manager (out of 1) were aware of the M&A or IJV decision*
	Vs.
Lack of Awareness of M&A decision amongst employees	*60% M&A Employees (out of 5) were not aware of the M&A decisions*
Lack of Awareness of IJV decision amongst employees	*70% IJV Employees (out of 10) were not aware of IJV decisions*
Difference in awareness between management and employees - Exemplary quotations	
Higher Awareness Amongst Management	*"I had 100% knowledge because I looked after everything in Organization PQR. I knew how it happened, what happened, I knew everything." (C_711_0022, Acquired Firm Manager)*
	"Sir (Owner) broadcasted it when we were doing a business review, our business review I think is around April, four years ago and that is how it was done, yes." (A_711_0047, Business head - Merged Firm)
	"The top level definitely knew something like JV was going on between two companies and definitely it was going to work out but the second and third level of people were not much aware of it" (E_711_0028_0029, Deputy general manager - IJV Firm)
Lack of awareness and communication amongst M&A and IJV employees	*"Our owner did not tell us anything, and our owner was always with us, he used to talk and laugh with us but never told us anything." (C_711_0019, Worker - Acquired Firm)*
	"We were not communicated with actually. We were not, they did not keep us informed in advance about this merger." (A_711_0017, Manager - Merged Firm)
	"No, Organization ABC was growing, that I knew but that it would go for joint venture that I did not know, I came to know later on. The Joint Venture took place in the year XXXX." (E_711_0034, Assistant - IJV Firm)

All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Figure 5.2 and Table 5.5

Table 6.3 - Difference in Awareness

These aspects of lack of involvement in decision making, confidentiality and lack of awareness amongst employees gave rise to employees hightened information seeking behaviours and reliance on informal channels of awareness. Even though these major transformations were kept entirely confidential from second and third level of employees, the interview analysis highlights that employees were aware about these major changes from informal sources. In all the three major transformations – acquisition, merger and joint venture; employees were aware of these transformations well before the formal announcement was received from the management. Interview participants shared examples, such as people in accounts were aware because of the investment money transfers between the partners; workers received news from some external sources; employees got ideas based on the progress of construction of a new building or based on the activities on the shop floor and some workers became aware because of the name change on the voucher. Table 6.4 provides the percentages of the participants who highlighted

this view, followed by exemplary quotations pertaining to the informal channels through which participants' gained awareness of M&A and IJV.

Informal Channels of M&A and IJV Awareness	
Acquisition	*50% Acquired Employees (out of 2); 33% Acquiring General Managers (out of 3)*
Merger	*33% Merger Employees (out of 3)*
IJV	*80% IJV Employees (out of 10)*
Informal Channels of M&A and IJV Awareness - Exemplary Quotations	
Employees seeking information for informal channels	*"But in the end, one man from outside, not from our company called me, he was called XYZ. He told me that these things were going to happen in the company." (C_711_0019, Acquired Workman)* *"But after acquisition the company told us that we have acquired; slightly we were listening to the news also." (B_711_0019, Deputy General Manager – Acquiring Firm)*
	"Whenever we take the voucher money and when we saw the name was changed on the voucher slip that time, we came to know that the name had changed. That was the time we made inquiries and we came to know." (A_711_0051, Worker - Merged Firm)
	"Yes, because rumours were going around. On the shop floor, they were discussing that something like this was going to happen and then the manager was telling us to do our work properly." (E_711_0041, Shop floor Assistant - IJV Firm)

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.4 - Informal Channels of M&A and IJV Awareness

6.2.3. Strategic Communication

Analysis highlights that Organization ABC shows a mix of formal and informal communication strategies in the context of M&A and IJV. It did not have any formal strategy for announcement of the merger or the acquisition, as highlighted by all the acquired employees and 36% of M&A management (out of 11 in total 2 COOs, 5 M&A general managers and 4 M&A managers). In the context of the merger, one of the general managers clearly stated, *"There was no official communication as such."(A_711_0047, Merged Firm – Business Head).* However, Organization ABC exhibited a planned formal communication strategy for IJV as highlighted by 78% of IJV general managers (out of 9) and 60% of IJV employees (out of 10). Firstly, after the full finalization of the deal, IJV was informed officially in the form of a formal annoucement party organized by the management. All the employees, external vendors and suppliers were invited and informed formally through a common forum, i.e. the celebration party, and a toast was raised in the presence of the American partner firm. According to one of the general managers from the IJV firm, this method of communication was adopted for correct and parallel

information flow and for employees to accept the change positively and to make the moment lighter. During the announcement, the benefits of IJV were explained. The party represented a 'happy moment' (E_711_0048, General Manager – IJV Firm) for everyone within the firm, from top to bottom, as indicated by one of the general managers:

> *"We presented it as a happy moment for everyone from top to bottom because they all were of the opinion that yeah this is a good company. They had also been in this work for so many years and we had been [in this work] from 30 years so it was a good combination and the way it was presented, everybody was thrilled and very happy." (E_711_0048, General Manager – IJV Firm)*

Sixty-six per cent of the IJV general managers (out of 9) stated that there did not exist any different communication strategy for different types of employees. The reason for this, according to one of the managers, was that as *"it [organization] is not based on any kind of political things, it does not have any castism, it was an absolutely transparent organization at that time, today also and I definitely feel that it will be in the future as well" (E_711_0046, Manager – IJV Firm).* However, in spite of this claim, union leaders of the organization stated that they were informed in advance in a meeting about the IJV. This happened before the formal announcement as the new building was being constructed and new machinery was arriving. Union leaders then happily informed other workers about this news. This is illustrated in the quotation below:

> *"Since I am a committee member so we have meetings sometimes. In that meeting this topic had come up regarding this [IJV] is going to happen in the company. Because the new building was getting constructed, new machines were coming, so people will have to be informed. Yes, committee members were informed. If I was informed and I attended a meeting, then other workers would come and ask me regarding what happened in the meeting. So we had to inform our workers a little bit with happiness." (E_711_0039, Union Leader for Both Firms)*

Hence, workers were aware of the IJV news before the formal announcement, highlighting the presence of a different informal communication approach adopted by the management in the context of IJV. This illustrates the co-existence of an

informal communication strategy in conjunction with a formal annoucement strategy for the IJV. This could also be viewed as a reaction from the management to explain to the workers about the forthcoming IJV, as rumours had already spread through informal channels of awareness (see section 6.2.2. Table 6.4 – Informal Channels of M&A and IJV Awareness).

6.3. Role of Amplifying Actions/ Positive Feedback Dynamics

Amplifying actions/positive feedback dynamics help in maintenance and sustenance of the disequilibrium state initially created by M&A and IJV. Plowman *et al.* (2007, pg.520) argue "positive feedback is information, such as rumours in organizations, that enhances rather than minimizes deviations from intended directions". It is highlighted when complex systems are in a disequilibrium state, that small actions and events, i.e. fluctuations in the system, get amplified because of positive feedback and self-reinforcement cycles (Anderson, 1999; Maruyama, 1963 in Lichtenstein and Plowman, 2009). Plowman *et al.* (2007) argue that in the context of social systems under stress, independent agents such as people or groups become highly interdependent, often as the outcome of a crisis or turbulence of some sort. "In such highly interconnected systems, positive feedback reinforces an initial signal and can amplify small changes" (Plowman *et al.*, 2007, pg.520). This also holds true in case of an organization going through a merger, acquisition or international joint venture, because the initial disequilibrium state (fluctuation dynamics) created by initiation of such major organizational changes (M&A and IJV) is further energized by multiple self-reinforcing cycles (positive feedback loops) within the organizational system due to highly interdependent people or groups in the organization. Anderson *et al.* (2005) state that in order to focus on the non-linearity of a complex system, attention should be on both 1) small events that lead to large outcomes and 2) large events that lead to small outcomes. In this section, organizing themes – 'patterns of emotions' and 'individual and organizational level challenges' serving as amplifying actions that fuel maintenance and sustenance of M&A and IJV disequilibrium state are discussed. Plowman *et al.* (2007) argue that it is this deviation amplification (i.e. positive feedback loops) that leads to the butterfly effect (Lorenz, 1993) and fuels the initial disequilibrium state moving the system toward far from equilibrium. Figure 6.3 is the thematic network for this global theme.
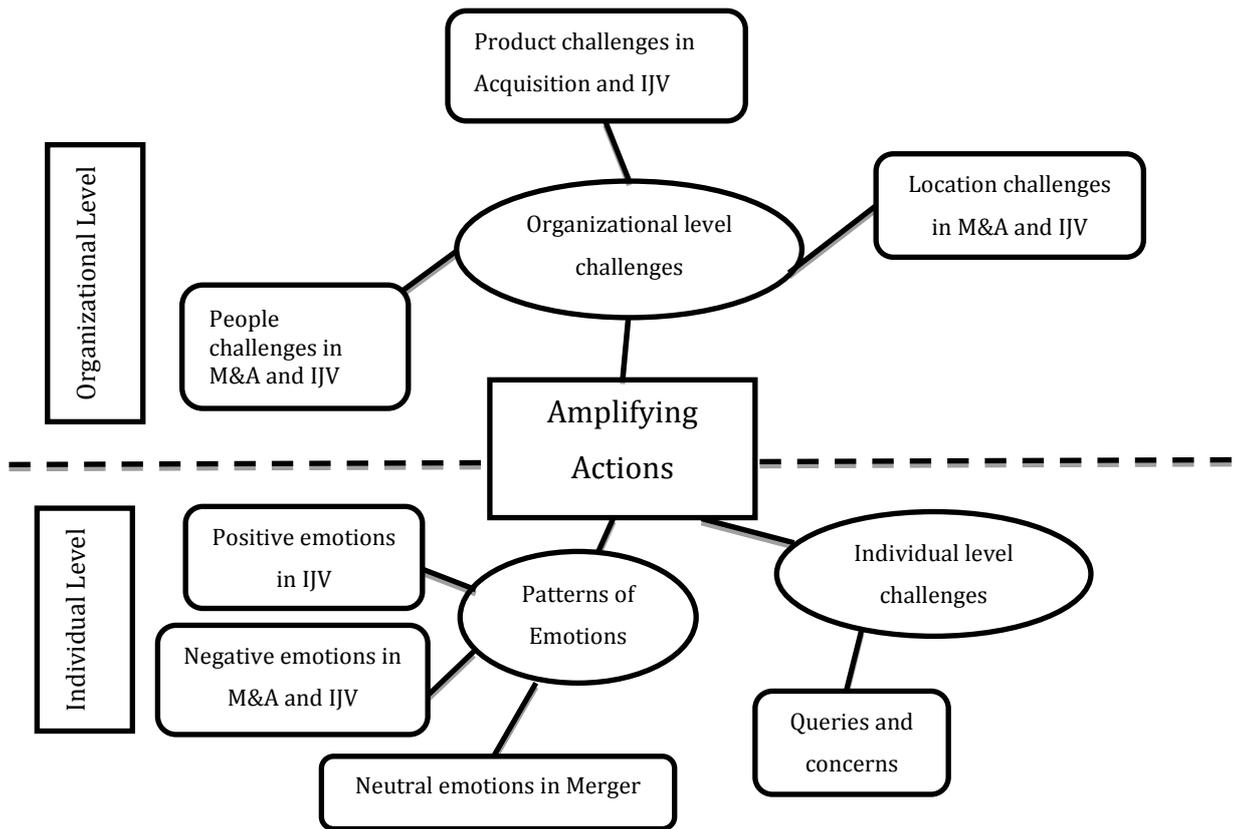
Figure 6.3 - Thematic Network for Global Theme – 'Amplifying Actions/Positive Feedback Dynamics''

6.3.1. Patterns of Emotions

Merger, acquisitions and international joint venture as strategies for growth at an organizational level, along with lack of employee involvement in decision making, difference in management and employee awareness and reliance on informal sources of awareness internally within the organization at an individual level, not only created a state of disequilibrium in the Organization ABC but also fuelled patterns of mixed emotions during these major transformations. Retrospective accounts from the participants brought forward their emotions at the times of these changes. Based on the analysis of each of these changes – M&A and IJV, these emotions can be classified as positive, negative and neutral emotions. These emotions are discussed in the following sections.

6.3.1.1. Positive Emotions

Positive emotions were expressed mainly for the IJV. No positive emotions were expressed for the merger and only one acquired manager and two acquiring employees mentioned positive emotions about the acquisition. Table 6.5 below

lists the positive emotions expressed for the IJV by both IJV employees and managers.

Positive Emotions	
IJV Employees (10 in total)	
JV with a Foreign Company	60%
Growth	40%
Happiness	40%
Journey of the Organization - Small to Large	40%
First kind of experience	30%
Learning	30%
Pride	30%
Higher production	30%
50% Share Assurance	20%
Higher Expectations	20%
Knowledge Sharing	20%
Humor	10%
No Lay-offs	10%
IJV General Managers (9 in total)	
Employee Change acceptance - Positive and Happy	66%
Humor	22%
Pride	22%
Bold Decision	11%
First kind of experience	11%
Good thought process	11%
Growth - Domestic to International	11%

All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5
Table 6.5 – Positive Emotions toward IJV

All the employees (100% out of 10) and most of the general managers (88% out of 9) expressed positive emotions in the context of IJV. The analysis highlighted that the main reason for positive emotion was joint venture with a foreign company (60% of IJV employees – see Table 6.5 - Positive emotions towards IJV). They also provided other reasons such as growth, happiness, journey of the organization etc. A few employees (30%) highlighted that they did not even know what a joint venture was, which confirms the view of a general manager who stated, *"I think for most of the employees here, this was the first experience of its kind" (E_711_0030, General Manager – IJV Firm).* Table 6.6 highlights some exemplary quotations emphasizing these positive emotions.

Positive IJV Emotions - Exemplary Quotations	
Employees	*"We did not even know what a joint venture is……We were happy to be an eyewitness of such a joint venture." (E_711_0033, Assistant – IJV Firm)* *"Everybody was feeling happy that the company is growing" (E_711_0034, Assistant – IJV Firm)*
Workers	*"We were happy that the company is growing." (E_711_0039, Union leader – IJV Firm)* *"I felt good because if the company grows automatically 101% even we will grow with the company." (E_711_0043, Worker – IJV Firm)*
General Managers	*"It is definitely a good change or definitely something which is viewed as a long term perspective." (E_711_0030, General Manager – IJV Firm)* *"It was really a very good experience for all the team members who were there with us before and after the JV so I'm very glad to be part of this particular team and I am seeing a lot of changes taking place in the company" (E_711_0046, Manager – IJV Firm)*

Table 6.6 - Positive IJV Emotions – Exemplary Quotations

One of the reasons shared by a few employees (see Table 6.5 - Positive emotions towards IJV) was also 'Higher Expectations'. Employees and workers highlighted an increase in expectations from the IJV in terms of higher salaries, growth in the organization and additional orders. As one of the assistants commented,

> *"But one thing was also there, that since the company is getting associated with an American company then maybe our salaries will be raised, we may work under them [American partner] and we may go abroad and work there and we may even get dollar salaries so everyone was under the impression that our company would make substantial progress. From the shop floor all*

were thinking the company is getting bigger so we will get better progress."
(E_711_0041, Shop floor Assistant - IJV Firm)

Some of the employees highlighted how management also communicated their increased expectations to employees after IJV.

"Our management says that if we want to satisfy them, we have to bring a change in the quality of the product as well as our personal quality, we will have to improve ourselves." (E_711_0034, Assistant – IJV Firm)

Most of the managers (66% of IJV general managers) believed that employees had taken the change very positively. Both managers and employees highlighted pride in Organization ABC's journey from being a small organization toward being a large organization with an international joint venture.

6.3.1.2. *Negative Emotions*

Negative emotions were expressed for all three transformations – merger, acquisition and IJV.Table 6.7 below lists the negative emotions expressed toward the merger, acquisition and IJV by both employees and managers.

Negative Emotions	
Acquisition (2 Acquired Employees, 1 Acquired Manager, 2 Acquiring Managers, 1 Acquiring Employee)	
Job insecurity	100% Acquired Employees
Concerns	100% Acquired Employees and Manager
Felt betrayed, confused, harrassed, sad	100% Acquired Employees and Manager
Process problems	50% Acquiring Manager and 100% Acquiring Employee
Merger (3 Merger Employees, 4 Merger General Managers, 3 Merger Managers)	
Workers provident fund (PF) issues	67% Merger Employees, 67% Merger Managers
Sales Team query	25% Merger General Managers
IJV Employees (out of 10)	
Process uncertainty	50%
Future uncertainty	40%
Work acceptance	40%
Job insecurity	30%
Reasons for IJV	30%

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.6

Table 6.7 – Negative Emotions toward M&A and IJV

6.3.1.2.1.   Acquisition

Negative emotions were expressed by 100% of acquired staff (out of 3). Table 6.8 provides exemplary quotations, illustrating the views expressed by acquired employee and manager after the acquisition.

Negative Emotions - Exemplary Quotations	
Acquired Workers	*"Our owner did not tell us any thing, and our owner was always with us, he used to talk and laugh with us but never told us anything" (C_711_0019, Acquired Workman)*
Acquired Management	*"I felt very much because I had worked for 25 years with Firm PQR…Yes I was very close that's why I felt much… I told him a lot, 'Don't do it' but he was getting money so he went ahead with it" (C_711_0022 , Acquired Firm - Manager)*

Table 6.8 – Negative Emotions toward M&A and IJV – Exemplary Quotations

Another acquired employee elaborated his initial confusion in assuming that acquiring management visits to the acquired premises during due diligence were *'customer visits' (C_711_0019, Acquired Workman).* It was only after few days that he became aware of the acquisition news. However, he realized something was going on in the organization because of the behavioural changes in the acquired owner's attitude in the last 15 days prior to finalization of the acquisition deal. He stated,

"When 15 days were left in the factory there was so much load of work of Organization PQR, the job was not getting completed, then he asked us to stay at night to complete it. So we had to stay at night, I was suspicious because something like this didn't happen any time in the past, we would leave at 11:30 pm however urgent the work was, but now we had to stay the whole night, what is it? So at that time we suspected that there was some problem, because until now the owner did not shout at anyone or put pressure on anyone that you do this much and go, it never happened like this, but as only 15 days were left at that time he harassed us." (C_711_0019, Acquired Workman)

The data not only highlighted negative emotions from acquired staff, but also acquiring employee and manager expressed negative emotions. An acquiring

manager and an acquiring employee who were part of the acquisition team highlighted that acquisition of Organization PQR was *"good"* (A_711_0017, *Acquiring Manager – M&A Firm)* for Organization ABC but on the other side, both highlighted people and location-related challenges in the post-acquisition stages. The acquiring manager pointed out the struggle in coping with the poor facilities at the acquired firm's location in the initial year after shifting to the acquired location.

> *"Actually working in Organization PQR was very difficult for us. As I rightly told you there was no power, water facilities and even sitting arrangements were not there, so we were finding it very difficult to cope with them."* *(A_711_0017, Acquiring Manager – M&A Firm)*

However, the main people issue in the post-acquisition stage which triggered negative emotions was acquiring management's decision to lay off acquired workers. Organization ABC decided to operate from the acquired location for one year after the acquisition. During this period, employees' removal and selection was undertaken. The analysis has brought forward emotions experienced by both acquiring and acquired employees and management during this phase. The comment below highlights that the process began with the acquiring management asking the acquired owner to clear the payments of all the acquired employees and they would later decide on their retention.

> *"Seniors (from acquiring management) said first you clear the payments of people who have been working here from 10-15-20-35 years then you keep whom you want and if you don't want to keep somebody then we will think about them afterwards." (C_711_0019, Acquired Workman)*

The process of employee lay-offs began after six months, according to the data accounts from acquired manager and workers. As explained by the COO (email feedback response), *"The meeting with workers was done individually with the head [of the departments] and HR who explained the policy of the company and the discipline to be maintained"* and only *"understanding and accepting people were shortlisted and selected"* to join the organization. This was confirmed by one of the acquired workers, who stated that only a few good people were selected without any talks or discussion. As he stated,

"There were no talks as such. But after six months it was said that a few people would be absorbed to work, no further talk, only good people were selected; not everyone was selected." (C_711_0020, Acquired Workman)

Inappropriate worker attitudes were stated to be the reason for employee lay-offs by managers and employees from both the combining organizations. This was also one of the reasons for the acquired organization being sold by its owner and for acquiring management laying off disobedient workers. As confirmed by the member of acquired management,

"He [acquired owner] said, 'I won't be able to handle this company because people come here drunk, workers are not right, so I am selling it'." (C_711_0022, Acquired Manager)

The removal of employees process, however had its repercussions, such as non-cooperation from acquired staff and difficulties in knowledge transfer. As one of the acquiring managers confessed, it eventually became difficult to work with people who thought they would be removed. He explained,

"But if you see the other side of the coin, there was a lot of painful things which we had to encounter. Like the workers were feeling that they were going to be sacked. From the acquired firm we took on our payroll only a few people but a few people we could not take because of their attitude, their disobedience, so they were not very cooperative with us. A lot of chasing up, lot of unwanted arguments were going on even to get the job done, because they were under an impression that 'anyway these people are going to leave us so why I should support them?, why should I make them understand about the machine? so I won't say anything. If you want you go and see the machine, you take the time, you learn by yourself.' This was the attitude of the people. So they were very difficult". (A_711_0017, Acquiring Manager – M&A Firm)

As an outcome, the workers lay-off phase not only triggered emotions but also triggered a high amount of job-related uncertainty for acquired workers. These aspects are emphasized by exemplary quotations in Table 6.9 below:

Negative Emotions (Job-related uncertainty) - Exemplary Quotations	
Acquired Workers	*"I thought at that time if not this place then I would have to find a job at a new place." (C_711_0020, Acquired Workman)*
	"We wondered how many days we would be working, we would be there" (C_711_0019, Acquired Workman)

Table 6.9 – Negative Emotions – Job-related Uncertainty – Exemplary Quotations

Hence, this analysis highlights that negative feelings and concerns existed on both sides during acquisition. It also highlights how changes such as 'employee lay-offs' after acquisition can act as positive feedback loops to trigger negative emotions and outcomes such as non-cooperation, improper handover and obstacles in the knowledge transfer between organizations. These actions amplify the initial disequilibrium conditions at the time of acquisition.

6.3.1.2.2. Merger

Out of ten participants who expressed views on the merger (see Chapter 5 Section 5.4. Table 5.5), only 40% (out of 10) expressed negative concerns and emotions. Groups such as workers and sales staff were the only groups to be affected by the merger. The main concern expressed by most of the participants (40%) was the provident fund issue. Many workers were anxious about their provident fund (PF) and other facilities in the new combined organizational entity after the merger. As one of the workers explained,

> *"The only fear was about our service and provident fund, where did we stand when all these major changes were taking place?...Yes, they (workers) were scared. Why was the company name changing and in this entire show, where did we stand? We were not sure if we would get the same facility as the previous unit or there would be something different" (A_711_0051, Worker – M&A Firm)*

Only one participant expressed the concern of the sales team. The merger led to shuffling and centralization of sales and marketing teams to provide a common front end to the customer, in contrast to earlier separate sales teams in each business division. The sales team expressed concern about selling the new extended range of products after the merger.

"One of the queries was about how many products there were and how I would learn about so many products." (A_711_0047, Business Head – M&A Firm)

Hence, this analysis highlights some negative emotions or concerns during the merger amplifying the initial disequilibrium conditions at the time of merger. It also highlights how only the groups affected by the change have such concerns and emotions.

6.3.1.2.3.   International Joint Venture

The international joint venture aroused mostly positive emotions from most of the employees (100% out of 10) and general managers (88% out of 9). However, many of the employees (70% out of 10) also reported queries or concerns along with the positive feelings for the IJV. IJV employees who exhibited positive emotions complemented them with negative emotions and concerns that they had at the time of IJV. Table 6.10 below provides exemplary quotations on negative IJV emotions alongside the details provided in Table 6.7.

Negative IJV Emotions - Exemplary Quotations	
Employees	*"Concerns like whether the company would run smoothly further on or not after the joint venture. Whether their boss would come and sit here or only our boss would sit?" (E_711_0034, Assistant – IJV Firm)* *"What is happening, why it is happening, is it for technological sharing…I had these concerns that after technological sharing, what kind of treatment would we get, would we be treated properly or not, it could even happen that they might replace us with someone else who may be more experienced." (E_711_0040, Senior Engineer – IJV Firm)* *"We did not have any idea about what was going on, whether they were taking over our company or the company would be shutting down. We did not have any supporting information, we were tense." (E_711_0041, Shop floor Assistant - IJV Firm)* *"There were many questions in my mind which were left unanswered… At that time it all remained unanswered. It remained in my heart only at that time." (E_711_0045, Executive – IJV Firm)*
Workers	*"Some people asked that since company was going to a new place, would they keep us or not." (E_711_0039, Union leader – IJV Firm)* *"I had just joined. I did not even know about the rules and regulations of this company and quickly other company's rules and regulations had come so I was a little afraid." (E_711_0039, Worker – IJV Firm)*

Table 6.10 – Negative Emotions toward IJV– Exemplary Quotations

Workers highlighted concern about increase in work-load and they were anxious about whether the quality of work would be accepted or not. 'Uncertainty' was highlighted by both workers and employees in terms of job security and future prospects. These negative emotions were not confined to employees and workers. Negative emotions were also exhibited by the CEO of the organization in context of the IJV. He provided a comparative and an emotional view by stating:

> *"In the case of the IJV, we were scared as we were joining hands with an American firm but we were unsure about how it would work. Would the company accept us? Because the American firm had come to India with an acquisition mind set. But we told them, 'We don't want to go for an acquisition, we can go for a joint venture if you want.' Then they said 49-51; we said no, 50-50. Therefore, at the time of acquisition of organization PQR, those employees were scared but at the time of the IJV we were scared. This was the main difference... Secondly, my father was worried during the IJV, as mind sets were very different. We had been running the company for the past 36 years, I and my father are the board of directors here. He started the company and now all of a sudden the company was going on the other side. Now there would be a joint venture and half of it would be handled by someone else. So that fear was there. We were scared whether we should go ahead or not." (CEO of Organization ABC, Post-presentation Meeting notes)*

These aspects brought forward negative feelings and concerns from management and employees, amplifying the initial disequilibrium conditions at the time of the IJV. The literature mainly highlights negative emotions only in the context of M&A, but the above analysis highlights the presence of negative emotions even in international joint ventures, at both managerial and employee level.

6.3.1.3. Neutral Emotions

Even though the merger of various business divisions highlighted negative emotions from some of the participants (40% out of 10) who were affected by it, but the analysis highlighted that most of the participants (70% out of 10) expressed neutral emotions toward the merger. The merger was mainly perceived as *"just a change in the name of the company" (A_711_0047, Business Head – M&A Firm)* by 67% of employees (out of 3), 100% of managers (out of 2), 50% of general managars (out of 4) and one of the two COOs (see Chapter 5 Section 5.4.

Table 5.5). This view is also confirmed by one of the managers from the merged firm who stated, *"I was not expecting very big changes from the merger"* *(D_711_0025, Deputy Manager – M&A Firm)*. Hence, the merger triggered fewer negative emotional reactions when compared with acquisition and international joint venture. The reason for this provided by the participants was that the merger was internal, i.e. no external entity was joining the organization and there was no change in the salary or work profiles. Only one of the employees highlighted that people were "happy" and "excited" to be part of a bigger organization, as the merged entity was bigger than separate business units.

Neutral Emotions for Merger - Exemplary Quotations	
Merger is internal	*"It is not that a different entity is coming and joining us, only new recruits were there but not people from a different company were coming and joining us so it was not an issue with anybody." (A_711_0013, Senior Executive – M&A Firm)*
No change in Work profile	*"Nothing has changed, we are doing the same kind of work." (A_711_0051, Worker – M&A Firm)*
	"Honestly, everybody had to do their own jobs. The routines and profiles were more or less the same, with some alterations and deletions." (A_711_0052, COO – M&A Firm)
	"The way we were working, we are still working in the same way." (D_711_0025, Deputy Manager – M&A Firm)
No change in salary	*"Normally their tendency is that the employer might place him in any of his companies. He is not much bothered about it unless his salary is cut or allowances are deducted." (B_711_0014, Manager – M&A Firm)*

Table 6.11 – Neutral Emotions for Merger – Exemplary Quotations

The above Table 6.11 highlights that employees who did not experience a major change in their work profile or salary were not much affected by the merger. It also highlights that since the merger was internal, with no change in work profile or salaries, it did not trigger either positive or negative emotions. It is also notable that the merger triggered less negative emotions when compared with acquisition and joint venture (Acquisition negative emotions – 100% of the acquired staff out of 3; IJV negative emotions – 100% of the IJV employees out of 10 and 88% of the IJV general managers out of 9; Merger negative emotions - 40% of 10 participants).

6.3.2. Individual and Organizational-level Challenges

The above mentioned patterns of emotions were further amplified by individual and organizational - M&A and IJV challenges. At an individual level, the data highlights that the above mentioned negative emotions in the case of M&A and IJV further increase individual level challenges as they fuel a positive feedback loop of multiple queries and concerns. These people challenges spiral up as they co-exist with other inherent organizational challenges posited by merger, acquisition and international joint venture demanding extra-ordinary management to handle the co-existence of inherent organizational level challenges along with individual level challenges. The organizing themes - individual level challenges and organizational level challenges are discussed in the following sections.

6.3.2.1. Individual-level Challenges - Queries and Concerns

The patterns of emotions are interlinked with the queries and concerns that emerge from employees at a time of major transformations like M&A and IJV. People or groups become highly interdependent at the time of crisis or turbulence, increasing the non-linearity, connectivity and agent interdependency at the time of major organizational transformations (Plowman *et al.*, 2007). Data highlighted that these queries and concerns do not necessarily emerge only from participants exhibiting negative emotions. Highly optimistic participants with positive emotions can also have queries and concerns at any point during the integration phase. The emergent queries during acquisition, merger and international joint venture are mentioned in Table 6.12.

Individual-level Challenges		
Queries and Concerns	**% Participants**	**Exemplary Quotations**
Acquired Workers – Job Uncertainty	*100% Acquired employees and manager (out of 3)*	*"I felt the need to ask (questions) but I had thought at that time if not this place then I will have to find a job at a new place." (C_711_0020, Acquired Workman)*
Merged Employees – Sales Team Query	*25% Merger General Managers (out of 4)*	*"One of the queries is about so many products are there and how will I learn about so many products when I talk to the customer?" (A_711_0047, Business Head – M&A Firm)*
Merged Workers – Provident Fund Query	*67% Merger Employees (out of 3); 100 % Merger Managers (out of 2)*	*"They (Workers) were more concerned about the PF, whether the previous PF would be transferred to the current PF account or not and how many days the new company will work for. The product is same, but why has the name changed, so all this small talk, rumours and gossip was going on." (A_711_0051, Worker – M&A Firm)*
IJV – Employees – Future Uncertainty	*70% IJV Employees (out of 10)*	*"See, the first question that arose was related to insecurity of the job, like what is going to happen, that was the first question." (E_711_0040, Senior Engineer, IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.12 – Individual-level Challenges

Table 6.12 highlights that queries and concerns are common to all the three – acquisition, merger and IJV. These individual level challenges during M&A and IJV at Organization ABC in the form of queries and concerns, get amplified and co-exist with participants' attempts to make sense of the M&A and IJV in the disequilibrium state.

6.3.2.2. *Organizational-level Challenges*

When the local level of the organization is struggling with its own emotions, queries, concerns and uncertainty; there exists an additional set of challenges which the management is dealing with in the context of acquisition, merger and international joint venture at an organizational level. Three basic themes – people, product and location emerged as organizational level challenges in the case of acquisition and international joint venture demanding management's attention. However, in the case of merger, only people and location challenges emerged as a basic theme. Product challenges did not exist in the merger due to there being no change in work practices and processes. Table 6.13 below highlights people, product and location challenges for acquisition, merger and IJV.

Organizational-level Challenges				
		People	**Product**	**Location**
Acquisition Challenges	**% Participants**	100% Acquiring Employees (out of 1); 50% Acquired Employees (out of 2), 100% Acquired Manager (out of 1)	100% Acquiring Employees (out of 1); 33% Acquiring General Manager (out of 3)	100% COO (out of 1); 50% Acquiring General Manager (out of 2)
	Exemplary Quotations	*"The workers in Organization PQR - out of them 50% were not proper, they used to drink and they were not bothered" (C_711_0022, Acquired Manager)*	*"Our first challenge was that there was no drawing available. People with Organization PQR had been working for 20-25 years so all the drawing was in their memory. So there was no systematic way of working there." (B_711_0016, Deputy General Manager – M&A Firm)*	*"We also discussed the location change as there used to be major power shutdown affecting the completion of the orders and sales executed. Also the issues were high on handling the governmental authorities in terms of manufacturing facilities and worker basic amenities." (Email Feedback response, COO – M&A Firm)*
Merger Challenges	**% Participants**	67% Merger Employees (out of 3); 100% Merger Managers (out of 2); 50% Merger General Managers (out of 4); 100% COO (out of 1)	*Not Applicable – "the way we were working; we are still working the same way." (D_711_0025, Deputy Manager – M&A Firm)* *(See section 6.3.1.3. – Neutral Emotions)*	33% Merger Employees (out of 3); 100% Merger General Managers (out of 4), 50% Merger Manager (out of 2)
	Exemplary Quotations	*"People, merging people. The inter personal relationship with people, the execution of counselling and people issues, especially the HR profile, making the clarity in terms of the operations among people." (A_711_0052, COO – M&A Firm)* *"The biggest challenge is to manage the expectations of people." (D_711_0025, Deputy Manager – M&A Firm)*		*"Shifting is with all the files and your desk and everything so it is a messy job but we have done that and I don't think that we will shift now." (A_711_0013, Senior Executive – M&A Firm)*
IJV Challenges	**% Participants**	55% IJV General Managers (out of 9); 20% IJV Employees (out of 10)	33% IJV General Managers (out of 9)	44% IJV General Managers (out of 9)
	Exemplary Quotations	*"They [Workers] feel why they should change when they have been doing it this way from many years, how come their way is no longer right."(E_711_0041, Shop floor Assistant - IJV Firm)*	*"See, basically the quality level which we were maintaining for the local market and the quality of product required by the international market; there is a vast difference between the two." (E_711_0031, Senior Manager – IJV Firm)*	*"Yes, communication gaps tend to happen, it's basically because we communicate in different time zones so I think that is sometimes a hindrance or maybe, I would say one of the reasons for communication gap" (E_711_0030, General Manager – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.13 – Organizational-level Challenges

The above section highlighted mainly people, product and location challenges experienced at an organizational level during major transformations such as acquisition, merger and IJV. Individual level challenges were expressed by participants in the form of their queries and concerns at the time of these transformations. This section has mainly highlighted these challenges. However, the next section relates these challenges to the actions taken at individual and organizational level to cope with these challenges, leading to recombination dynamics and self-organization attempts after acquisition, merger and IJV.

6.4. Recombination Dynamics / Self-organization

Maguire and McKelvey (1999) argue that a disequilibrium state is full of adaptive tensions and tension gradients. These adaptive tensions and tension gradients were evident when the above sections highlighted M&A and IJV as disequilibrium conditions (see section 6.2) followed by consecutive amplifying actions such as patterns of emotions (see section 6.3.1.) and individual and organizational level challenges (see section 6.3.2.) in the context of Organization ABC. However, Stacey (1995) claims that it is in this disequilibrium region that emergent self-organization and creative destruction takes place. Lichtenstein (2000) argues that a new order of the system is formed after reaching a threshold, i.e. disequilibrium level. This is achieved through recombination dynamics. Lichtenstein and Plowman (2009, pg.620) argue that the new order is "created through a recombination of resources—a re-aggregation of some kind, that increases the capacity of the overall system to operate". However, as stated in section 3.3.1, it is important to note that self-organization (also called as recombination dynamics) can be either positive or negative. It basically means self-organization is a neutral term and it refers to how members of the organizations have always behaved rather than a new kind of behaviour. Such behaviours at times of critical organizational changes, can affect the change outcomes. In the context of M&A and IJV at Organization ABC, the recombination dynamics (or self-organization) was favourable and it emerged at two stages: 1) firstly, in the post-integration phase of M&A and IJV to cope with the immediate individual and organizational challenges (discussed in this section); 2) secondly, in the current scenario (at the time of data collection) to cope with the current individual and organizational challenges (see section 6.7). The latter emerged due to the last question of the interview which

inquired what key changes participants would like to see in the current scenario. This question brought to fore several suggestions from participants in order to deal with the unintended emergent outcomes and the on-going internal challenges at M&A and IJV Firm. This can be considered to be the basis for the recombination dynamics in the current scenario. These suggestions coined by the participants were reported by the researcher to the management. This exercise overall initiated a discussion in the organisation both – bottom-up and top-down which may or may not lead to implementation, but nevertheless will remain as a subconscious discourse of the organisation and can be associated through path dependency, even though not directly attributed, to the future recombination/self-organisation dynamics.

Figure 6.4 is the thematic network for the global theme – 'Recombination dynamics'. In this section, the multi-level (organizational and individual level) actions taken to cope with the multi-level (organizational and individual) challenges are discussed. These actions highlight the recombination of resources to collectively achieve emergent self-organization in the context of M&A and IJV.
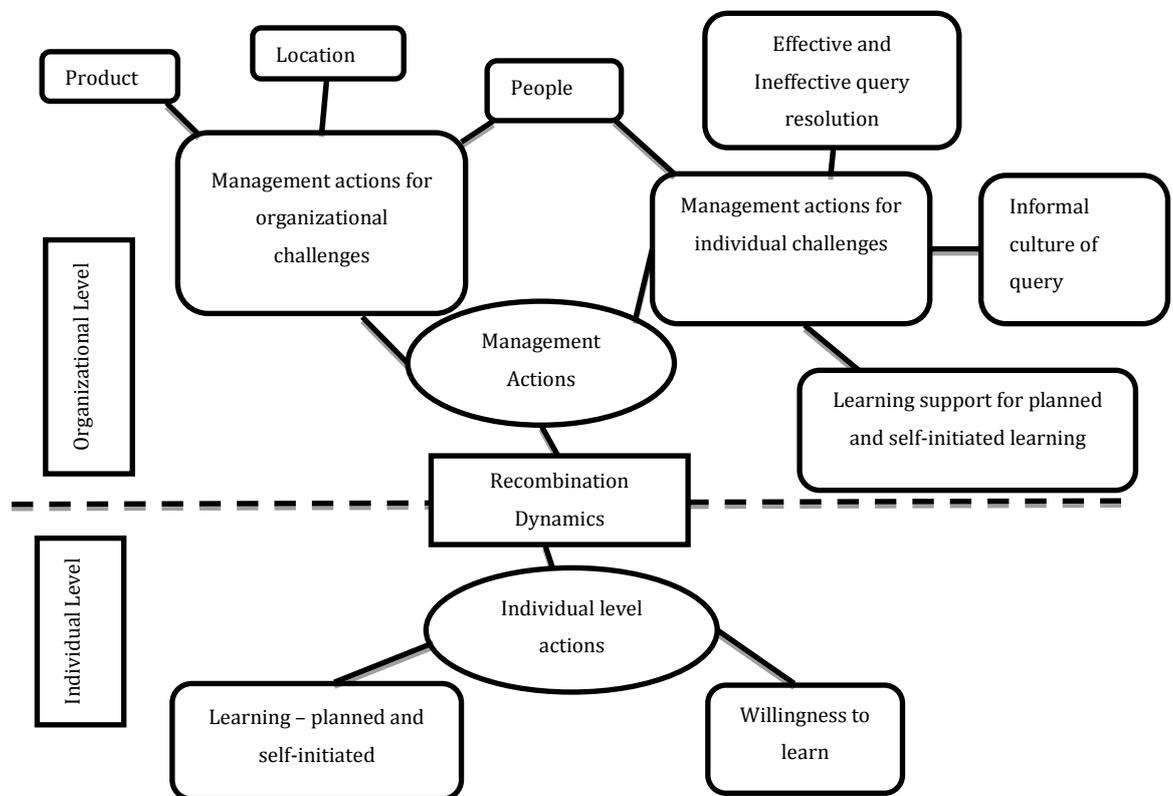
Figure 6.4 - Recombination Dynamics

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6.4.1. Individual and Organizational-level Actions

6.4.1.1. Individual-level Actions

The analysis highlights that employees had to learn new things in order to adapt to the acquisition and IJV. The merger, being internal, did not inflict any change on the existing work practices of individual employees leading to no new learning initiatives (see section 6.3.2.1 - Individual level Challenges). The analysis brought forward a high level of willingness to learn amongst the participants from both M&A and IJV firms (see below Table 6.14). However, willingness to learn was higher in IJV employees (100% out of 10) when compared with M&A employees (37% out of 8). The main reasons that employees associated with learning initiatives were encountering challenging work, comparison with new recruits, for career growth, demands of the new job profile, to gain knowledge and to keep up with new technologies. Table 6.14 highlights these perspectives toward learning in the organization.

Willingness to Learn		
M&A	% Participants	*37% M&A Employees (out of 8 in total); 40% M&A Manager (out of 5 in total); 20% M&A General Managers (out of 5 in total)*
	Exemplary quotations	*"Learning will never stop, the new technology comes in. If there is a new disease, it has a new medicine to cure it and we have to come up with a different technology." (C_711_0022, Acquired Worker – M&A Firm)* *"We get to learn a lot, we get to communicate with a person with whom we never communicated before so if you are getting something to learn, then who will say no?" (D_711_0023, Senior Executive – M&A Firm)* *"I like to learn new things, if they give me new work apart from my work then I like it, I don't wonder why additional work is given to me and feel I shouldn't do it, I want to increase my knowledge." (D_711_0049, Assistant – M&A Firm)* *"The reason is probably, I don't know if it was a positive attitude or something like that, I never stopped myself from learning anything. Anything that used to come, I used to put my hand into it." (D_711_0025, Deputy Manager – M&A Firm)*
IJV	% Participants	*100% IJV Employees (out of 10)*
	Exemplary quotations	*"I first just learnt the basics in computers but when I evinced further interest I could learn so many new things so the more you are willing to learn, you will gain better knowledge." (E_711_0041, Shop floor Assistant – IJV Firm)* *"It should be within you to know and understand things, and then only you will be able to do the accounting properly." (E_711_0034, Accounts Assistant – IJV Firm)* *"Yes it is pressurizing but it is challenging, because you get to learn so many things, and I enjoy it sometimes." (E_711_0037, Executive – IJV Firm)* *"New work; new challenge is better for an operator. It can change my life." (E_711_0044, Worker – IJV Firm)* *"I thought it is fine that it is not me yet but I will learn it and I proved it. I learnt by sitting with them for 1-2 months. I had to work two hours extra every day if I wanted to learn and I said Ok! I agree and that is how I learnt it." (E_711_0045, Executive – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.3.2 Table 5.4

Table 6.14 – Willingness to Learn

100% of the acquired employees and managers (out of 3); and 67% of the acquiring employees and managers (out of 3) highlighted learning after acquisition. Acquired workers had to learn to assemble new machines and adapt to new work practices such as working in millimetres instead of inches. One of the acquired managers had to develop customer interaction skills to suit the culture of the acquired firm.

> *"So after I came here it was a bit difficult with the English and all, I do talk in English but my grammar is little weak that is why I don't talk with anyone but once I go out I talk in my language because they know my language and I know their language, so earlier I had to adjust." (C_711_0022, Acquired Manager)*

Also, production of machine parts is now outsourced to external vendors. Unlike their previous organization, acquired workers now have to just assemble the parts which come from external vendors and report issues to their seniors.

> *"There is a lot of difference between what was there and what is here, there was no drawing or designer [at their previous organization]. Only Sir marked with pen and said I want this, we made it like that. There were no machine; we ourselves made it from top to bottom, from body to covering. When we came here the work is very different from there, not less but it is 75% different" (C_711_0019, Acquired workman)*

Not only acquired employees but also employees from acquiring Organization ABC had to learn many things after acquisition. One of the acquiring employee mentioned the post-integration phase as a "learning stage" where employees had to learn many things, acquisition such as machine knowledge and quotation preparation, demanding constant communication with their seniors.

> *"It was a learning stage. So the initial stage was a struggle because nobody was aware of what to do. We had to ask Sir, 'What do we have to do now in this problem?' because everything was new." (A_711_0013, Senior Executive – M&A Firm)*

In the context of the IJV, 50% of the IJV employees (out of 10) had clearly undertaken self-learning initiatives. Employees and workers started undertaking

self-learning initiatives such as learning about computers or new software. As one of the workers explained,

> *"Yes, for that [a new software] I was giving two hours additional to the company every day after 8 hours. At that time I never expected that the company should give me anything extra for spending my extra time on the machine." (E_711_0045, Executive – IJV Firm)*

Therefore, the analysis has highlighted the presence of willingness to learn amongst participants at Organization ABC. It also brought forward the learning initiatives taken by both acquired and acquiring members after the acquisition.

6.4.1.2. Management Actions

The analysis highlighted that management handled both individual and organizational level challenges (as discussed in sections 6.3.2.1. and 6.3.2.2.) at the time of M&A and IJV. The actions taken by management to handle the organizational level challenges are stated below in Table 6.15.

Management Actions for Organizational-level Challenges			
Actions	Percentages and quotations	Introduction of Product/ Process Improvements for Product-related challenges (In response to organizational level challenges - see section 6.3.2.2.)	Location and Infrastructure Improvements for Location-related challenges (In response to organizational level challenges - see section 6.3.2.2.)
Acquisition Actions	% Particip-ants	50% of Acquiring Managers (out of 2), 100% of Acquiring Employees (out of 1), 67% of Acquiring General Managers (out of 3), 50% of acquired employees (out of 2), 100% of acquired manager (out of 1)	CEO of the company and COO of the division, 67% of Acquiring General Managers (out of 3), 50% of acquired employees (out of 2)
	Exemplary quotations	Product drawings and renovation - *"So that was one phase to put existing machine into paper [drawing]. So that is the first thing we did. Now this is the only work of making available drawing into the recorded form, after that second phase was how to renovate them. Technology was very old and with those concepts we had to build new machines with new technology, so that was another phase." (B_711_0016, Deputy General Manager – IJV Firm)*	Change of Location - *"We shifted to Location A in a Gala (small workshop) to begin with and transport facilities were deployed for commuting. This location was managed for couple of years before we completed building a separate factory for one location for both tooling and packaging divisions." (Email Feedback response, COO – M&A Firm)*

All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5
Table 6.15 - Management Actions for Organizational-level Challenges

Management Actions for Organizational-level Challenges			
Actions	Percentages and quotations	Introduction of Product/ Process Improvements for Product-related challenges (In response to organizational level challenges - see section 6.3.2.2.)	Location and Infrastructure Improvements for Location-related challenges (In response to organizational level challenges - see section 6.3.2.2.)
Merger Actions	% Participants	Not Applicable	2% of Merger general managers (out of 4), 33% of Merger employees (out of 3)
	Exemplary quotations		Infrastructure development - *"Earlier our working conditions were not so good but now the shop floor is on the top floor and it is much better than before, there are many facilities available to us at the shop floor."* *(A_711_0051, Worker – M&A Firm)*
IJV Actions	% of Participants	44% of IJV general managers (out of 9), 90% of IJV employees (out of 10)	11% of IJV general managers (out of 9), 50% IJV employees (out of 10)
	Exemplary Quotations	Process improvements - *"Process improvement all these kind of stuff is developed a lot. Because of that a lot of improvements happened in the product as well as the process."* *(E_711_0027, Deputy General Manager – IJV Firm)*	Infrastructure development - *"I was being told that company would be air conditioned. Now air conditioner is good. Initially, a lot of sweat has flown and now we will work in air conditioned environment."* *(E_711_0039, Workers – IJV Firm)*

All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.15 (continued) - Management Actions for Organizational-level Challenges

The above table shows how management handled product/process and location-related challenges by actions such as product and process improvements and location and infrastructure development, respectively. Other than product/process and location challenges during M&A and IJV, the third type of challenge that required management actions were people-related challenges. Employees highlighted their challenges in the form of queries and concerns (see section 6.3.2.1) during M&A and IJV. 55% IJV general managers (out of 9) confessed that they were aware of the rumours and employees' queries and concerns that persisted at the local/individual level at the time of IJV. As correctly stated by one of the general managers,

"Generally when these kinds of acquisitions or JVs or any change is happening in the company, though it has been notified only to the first level of the people, this news is there till the end line of the person as well working in the company. It doesn't come out officially but yes it is known to everyone. And when it is known to them generally, apart from leaving a batch of the people who are really working on this JV, apart from them all the others will definitely have questions, like will there be a loss in the company or do they want to give up the company or there will be new bosses that are going to come, there will be people from the US who will come and rule over us". (E_711_0028_0029, Deputy General Manager – IJV Firm)

However, how these managers resolved employees queries and concerns varied across Organization ABC, depending on the manager. In some scenario, queries were diverted or time was taken for queries to slowly die down and in some other scenarios they were resolved effectively. One of the managers stated how he answered employees' query about the IJV partner's visit to Organization ABC premises by stating that people were visiting for technical reasons, in order to divert employees' attention.

"Those things come but at that time when the question came, we said no, no, no; they have come just for analysing or just for some studies or we are transferring their technologies and all these things. So like that we divert their way." (E_711_0038, Senior Manager – IJV Firm)

55% IJV general managers (out of 9) and 33% of M&A general managers (out of 6) expressed defensive mechanisms when it came to effective query resolution. Some exemplary quotations on defensive mechanisms used by managers leading to ineffective query resolution are provided in Table 6.16 below.

Defensive Mechanisms - Exemplary Quotations	
Acquisition	*"These employees are illiterate you can say. They are machine minded people asking questions in machine building." (B_711_0016, Deputy General Manager – M&A Firm)*
Merger	*"Most of the groups adapt to the situations and some of them come up with some kind of negative situations, so that takes a little toll of time to counsel and some try and bury their points and after sometime it gets withered away." (A_711_0052, COO – M&A Firm)*
IJV	*"Yes every industry, every company, there are always some loop-holes but in this case loop-holes were very few. But still those loop-holes, those thoughts, [people] with that point of view got kicked-off [removed]; but people who are really thinking from a different kind of perspective, they are still in the company." (E_711_0046, Manager – IJV Firm)*

Table 6.16 - Defensive Mechanisms

The analysis also highlighted that there did not exist any formal query resolution channels at the time of these major transformations in Organization ABC. This further increased the importance of and dependence on resolution of queries and concerns by managers. As commented by one of managers involved with the IJV, *"I think this was something we really lacked. We made the storms to go amongst employees; we never attended to it at the level it should clearly have been attended." (E_711_0028_0029, Manager – IJV Firm).* However, there existed two main aspects which helped the system self-organize or re-aggregate after the amplification dynamics caused by employees' queries and concerns during M&A and IJV. Firstly, some of the main queries were resolved by the management. Table 6.17 below illustrates how management resolved some of the main queries and concerns in the context of these major transformations.

Management Actions – Individual-level Challenges				
		Employees' queries and concerns	*Management action taken*	*Exemplary quotations*
Acquisition Actions	CEO of the company and COO of the division, 33% of Acquiring General Managers (out of 3), 100% of acquired employees and acquired manager (out of 3 in total)	Acquired workers – Job-related Uncertainty	Few acquired workers were recruited and provided travelling assurance	*"Sir was there, he called a man and spoke to him. We said, 'It is ok if you are taking us, we are ready to come and we don't have any problem'. They said, 'Your travelling expenses will be paid by the factory, there is no tension, it will be the responsibility of the factory till home', We said, 'We don't have any tension then'." (C_711_0019, Acquired workman)*
		Acquired workers – Travelling concern to a new location		
Merger Actions	100% of COOs (out of 2), 50% of Merger general managers (out of 4), 33% of Merger employees (out of 3)	Workers' Provident Fund Query	Human Resource managers handled Workers' Provident Fund Query after Merger	*"Madam [HR] assured us that it will not make any difference to the workers and everyone's PFs would be transferred to the new company account." (A_711_0051, Worker – IJV Firm)*
		Sales Team increased number of products query	New job roles were introduced to help the sales team with the increased product basket after Merger	*"It was answered by the management by putting product managers who are the specialist for the products. So they can interact with the product managers and take them in their fold and go to the customers to clear the customer queries." (A_711_0047, Business Head – IJV Firm)*
IJV Actions	44% of IJV general managers (out of 9), 60% of IJV employees (out of 10)	Employees' Queries and Concerns	Queries were resolved only with time and communication	*"It wasn't directly after the joint venture that we got to know what was happening, after six months there was another meeting, later on we got to know that it was not related to [job] insecurity but it was technology sharing."(E_711_0040, Senior Engineer – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.17 - Management Actions – Individual-level Challenges

However, the COOs also stated that some queries were left unanswered,

> *"Some issues were a little difficult because when it came to a matter of policy and to rationalise it across a group of people, it was difficult. So we had to stay away from them without decisions for some time." (A_711_0052, COO – M&A Firm)*

Secondly, even if the data highlights that the organization did not have any formal channels for query resolution, the analysis highlights that Organization ABC has a shadow culture of getting clarification from immediate seniors and colleagues i.e. an informal query resolution culture. Twenty-four per cent of the participants mentioned about existence of such channels of communication for query resolution. Table 6.18 provides exemplary quotations from general managers to illustrate this.

Informal Query Resolution Culture – Exemplary Quotations	
Acquisition	*"They asked verbally communicating to our supervisor and depending on the gravity of the problem, it was resolved."(B_711_0016, Deputy General Manager – M&A Firm)*
Merger	*"Everybody has got their contact points. If you move around in the company, there are contact points from where you can get answers to your queries and people have been approached. This is a very open firm." (D_711_0025, Deputy Manager – M&A Firm)*
IJV	*"I think the message goes well and here you know if there is some kind of gap in understanding they all will talk to each other and then they will get the information so we have bodies like the HODs [head of departments]. So in the company you know where there are 100 people we will have five or six head of the departments so the culture here is that if they are not able to understand anything, they will go and clarify with HODs and that's how it is taken up." (E_711_0048, General Manager – IJV Firm)*

Table 6.18- Informal Query Resolution Culture – General Managers

This managerial claim of getting resolution from immediate seniors and colleagues is also verified by the employee data. The data brought forward examples where queries were resolved by immediate seniors during the merger and joint venture. Table 6.19, below, provides exemplary quotations on this point;

Query Resolution Culture – Employees' Examples - Exemplary Quotations	
Merger – Union Leaders answering workers queries	*"Yes, I used to say that don't be scared. Our company is growing, it is not going anywhere else, and it is going to stay in the same place." (E_711_0039, Union leader – M&A and IJV Firm)*
IJV – Supervisor explaining workers	*"There was a supervisor and he said that in a joint venture both the companies are equal partners and we have to even do their work and give it to them. He said there is a lot of growth in the company." (E_711_0043, Worker – IJV Firm)*

Table 6.19 - Informal Query Resolution Culture – Employees

Moreover, in the context of IJV, management actions also involved providing 'learning support' by encouraging and making arrangements for planned learning initiatives (55% of IJV general managers out of 9, and 30% of IJV employees out of 10 confirmed this claim) and by supporting employees with self-initiated learning initiatives (20% of IJV employees out of 10). For planned learning, management sent managers to the American partner's premises to learn and then transfer and disseminate that learning within Organization ABC. Workers were shown videos of American staff's work practices. In order to support employees with self-initiated learning initiatives heads of department and managers allowed employees to learn new things. As expressed by one of the employees,

> *"My HOD also noticed my increased interest in learning the machine. He gave me permission to learn it only after they went home." (E_711_0045, Executive – IJV Firm)*

In summary, this section highlighted the multi-level (organizational and individual level) actions taken to cope with the multi-level (organizational and individual) challenges during M&A and IJV. This recombination dynamic is critical in maintaining and sustaining the disequilibrium within the system but at the same time does not let it cross over the edge of chaos. The next section reports the emergent system wide outcomes of M&A and IJV at Organization ABC.

6.5. Emergent System-wide Outcomes

The previous sections elaborated on the creation of M&A and IJV disequilibrium state, its maintenance and sustenance because of amplifying actions and positive

feedback dynamics followed by recombination and self-organization dynamics. This section illustrates the emergent outcome of M&A and IJV when analysed in the current scenario (at the time of data collection). Balogun and Johnson (2005) and Balogun (2006) support the tendency of planned top-down changes to have both intended and unintended outcomes. They state that this unpredictable emergent nature of change is due to inter-recipient sense making which collectively leads to intended and unintended change outcomes. They, therefore, argue that, "organisational change is a context-dependent, unpredictable, non-linear process, in which intended strategies often lead to unintended outcomes" (pg.1573). Lichtenstein (2000, pg.132) states that at the peak of disequilibrium, "a complex systems change transforms the organization to a new phase in its development journey". Therefore, emergence is the outcome of the system with qualities which are more than the mere sum of its agent qualities and is not completely reflected in each individual agent interaction (Lichtenstein, 2000). Hence, the new emergent system has new characteristics. It is qualitatively more than sum of its parts and interactions. The earlier sections on global themes – disequilibrium conditions, amplifying actions and recombination dynamics, provide the basis to understand the system wide emergent outcomes of M&A and IJV at both organizational and individual level in the current scenario. These emergent outcomes in the current scenario comprise both intended and unintended outcomes at organizational and individual level. In context of this research, the intended outcomes are the expected outcomes based on the purpose of the planned change, and unintended outcomes are the unexpected, unanticipated consequences or outcomes which are not foreseen by the purpose of the change. The organizing themes – emergent system wide intended outcomes and the unintended outcomes at both organizational and individual level, comprise the global theme – emergent system-wide outcomes. However, unintended outcomes at both organizational and individual level are discussed in the next section – stabilizing/negative feedback (see section 6.6.1.). Figure – 6.5 provides a diagrammatic summary of this section with the help of a thematic network for the global theme – 'Emergent System-Wide Outcomes'. The following sections provide an analysis of this theme.
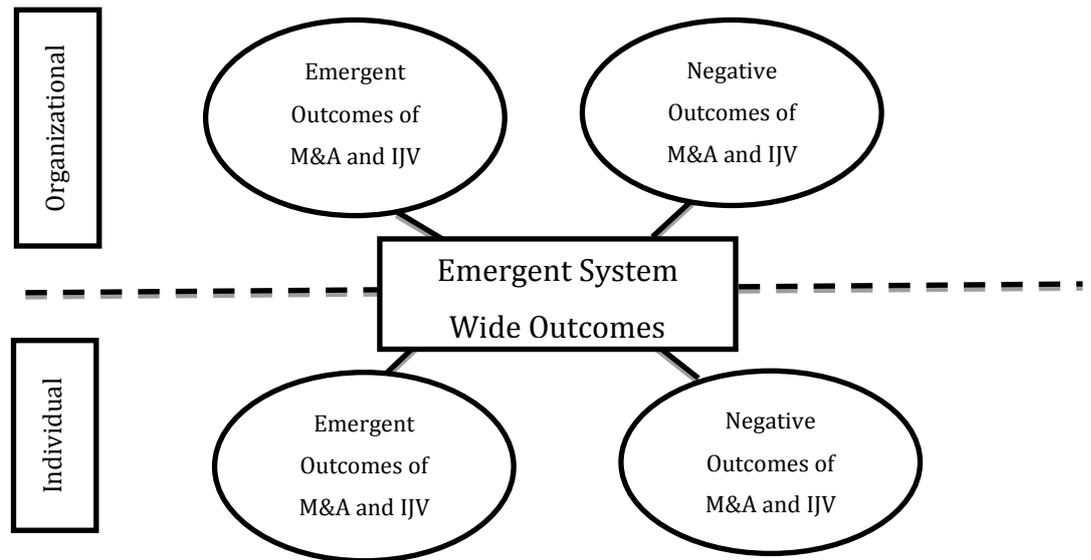
Figure 6.5 – Emergent System-wide Outcomes

6.5.1. Organizational-level Outcomes of M&A and IJV

The analysis has highlighted multiple intended outcomes of M&A and IJV at an organizational level. Table 6.20 and Table 6.21 list these emergent intended outcomes of M&A and IJV respectively along with the percentage of participants who shared these views. These are supported with exemplary quotations from the interviews. As can be seen from Table 6.20, in context of M&A, infrastructure and size of the organization after the merger (42% out of 19 participants in total from M&A Firm) was the most important outcome of merger. This was followed by expansion of the product range after M&A (32% out of 19 participants in total from M&A Firm) and product reengineering (32% out of 19 participants in total from M&A Firm) after acquisition being the most favourable outcomes of these strategies. Being a one stop solution provider and the twofold advantage of the merger (26% out of 19 participants in total from M&A Firm) in terms of obtaining business from the customers was also highlighted as one of the important positive results of M&A. In the context of the IJV (see Table 6.21), the positive effect on organizational growth and development (79% out of 19 participants in total from IJV Firm) was highlighted as the most important outcome of IJV. This was followed by product improvement (58% out of 19 participants in total from IJV Firm) and effect on customer focus (16% out of 19 participants in total from IJV Firm) as the other important outcomes of IJV.

Organizational level - Emergent Outcomes of M&A		
Outcome	**% Participants (out of 19 in total – 1 COO, 5 General Managers, 5 Managers, 8 Employees**)	**Exemplary quotations**
Increase in Infrastructure and Size of the organization after the merger	*42% in total (COO of the division, 40% of M&A Managers, 62% of M&A Employees)*	*"At first our working conditions were not so good but now the shop floor is on the top floor and it is much better than before, there are many facilities available to us on the shop floor." (A_711_0051, Worker – M&A Firm)* *"Previously only 5 people were there. After the merger 50 people were there so even they are happy to work with the big organisation." (A_711_0013, Senior Executive – M&A Firm)*
Product Reengineering	*32% in total (40% of M&A General Managers, 40% of M&A Managers, 25% of M&A Employees)*	<u>*Acquisition*</u> *– "So we started one by one, reengineered the machines then slowly one by one lot of machines got developed and we are in a stage of 9 crore [90 million], we reached 9 crore [90 million] last year." (A_711_0017, Senior Manager – M&A Firm)*
Expansion of the product range after M&A	*32% in total (60% of M&A General Managers, 20% of M&A Managers, 25% of M&A Employees)*	<u>*Acquisition*</u> *- "The biggest advantage I can say is over a small period of time we acquired a big market, a huge range of machines that was our main acquisition advantage." (B_711_0016, Deputy General Manager – M&A Firm)*
		<u>*Merger*</u> *– "They have something to present that will cover all the products and not just a single tooling. At that time it was beneficial to the sales team to have a picture for themselves to present their thoughts." (A_711_0047, Business Head – M&A Firm)*
One stop solution provider after Merger	*26% in total (80% of M&A General Managers, 12% of M&A Employees)*	*"The importance of having this concept in mind is to make them feel that we are a complete solution provider." (A_711_0047, Business Head – M&A Firm)* *"See, the merger was for the customers also, they got a one-roof solution." (B_711_0016, Deputy General Manager – M&A Firm)*
Twofold advantage of the merger		*"A visit of that probable customer to my plant also to see my manufacturing when he is making a decision to buy something is a twofold advantage." (D_711_0026, Assistant General Manager – M&A Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.20 - Organizational level - Emergent Outcomes of M&A

Organizational level - Emergent Outcomes of M&A		
Outcome	**% Participants (out of 19 in total – 1 COO, 5 General Managers, 5 Managers, 8 Employees)**	**Exemplary quotations**
Improvement in Customer focus after merger	*21% in total (60% of M&A General Managers, 12% of M&A Employees)*	*"The only thing that we could feel changing is the customer focus. That has changed. It is better actually now." (D_711_0025, Deputy Manager – M&A Firm)*
Better workforce utilization after merger	*16% in total (40% of M&A General Managers, 12% of M&A Employee)*	*"When we did the merger under a one-roof solution, the entire sales team came together and everyone was doing marketing for everybody [all divisions] so that is a great experience. Before we were dealing with 2 people and now we are dealing with 20 people and we are getting enquiries from everybody and we are serving everybody...that's what you know when we got merged that time our sales team increased and business increased." (A_711_0013, Senior Executive – M&A Firm)*
Talent acquisition	*10.5% in total (40% of M&A General Managers)*	*Acquisition – "These are the advantages of people [acquired workers] strength..... and again in two years we had a good rapport with these people that was helpful for building new range machines. That was again helpful to us. We got a good team which was our requirement for building machines." (B_711_0016, Deputy General Manager – M&A Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.20 (continued) - Organizational level - Emergent Outcomes of M&A

Organizational level – Emergent Outcomes of IJV			
Outcome		**% of Participants (out of 19 in total – 9 General Managers, 10 Employees)**	**Exemplary Quotations**
Positive effect on organizational growth and development - 79% in total	*Increase in Manpower*	22% of IJV General Managers, 60% of IJV Employees	*"Growth is definitely there. When I joined here, there were 150~200 employees but now the strength is 400~450 employees so growth is definitely there." (E_711_0033, Assistant – IJV Firm)*
	Increase in Productivity	11% of IJV General Managers, 50% of IJV Employees	*"Development has taken place. First we were manufacturing 6000 sets. But now the plan is for 12000 sets. So substantial development has taken place." (E_711_0045, Executive – IJV Firm)*
	Improved Market Reach	55% of IJV General Managers, 10% of IJV Employees	*"We have increased our market or reach for that particular segment which was not there earlier because before the joint venture we were taking care of 40+ countries and after the joint venture that has increased to 55+." (E_711_0032, Assistant General Manager – IJV Firm)*
	Improved Technology	44% of IJV General Managers, 10% of IJV Employees	*"Technology transfer and the kind of expertise that you wanted to learn which earlier we were earlier struggling with, has now been gained." (E_711_0046, Manager – IJV Firm)*
Product Improvement – 58% in total	*Quality*	22% of IJV General Managers, 30% of IJV Employees	*"Yes there has been difference in that. Actually now we feel that the quality is much better comparatively." (E_711_0045, Executive – IJV firm)*
	Brand Value	44% of IJV General Managers	*"So yes definitely it has helped the brand value to go up and launch us in terms of how customers look at it." (E_711_0030, General Manager – IJV Firm)*
Positive effect on Customers – 16% in total	*Customer Perspective*	22% of IJV General Managers	*"The acceptance from the market, in terms of how many of the customers look at you. It's because of having somebody from the West invest in India. This definitely signalled that yes you are doing something well, you have taken it to that level where somebody comes and is interested in it." (E_711_0030, General Manager – IJV Firm)*
	Customer Orientation	22% of IJV General Managers	*"Customer orientation was there but then it has been more precise and clearer now." (E_711_0028_0029, Manager – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.3.2 Table 5.4

Table 6.21 - Organizational level - Emergent Outcomes of IJV

6.5.2. Individual-level Emergent Outcomes of M&A and IJV

The analysis has highlighted multiple emergent outcomes of M&A and IJV at an individual level. Table 6.22 and Table 6.23 list these emergent outcomes of M&A and IJV along with the percentage of participants who shared these views. These are supported with exemplary quotations from the interviews. As can be seen from Table 6.22, in the context of acquisition, all of the acquired staff (100%) shared positive views on infrastructure and facilities, work culture and practices when compared with their previous organization. In the context of the merger, participants mainly highlighted that their work spectrum broadened after the merger (20%) and there has been increased face to face communication with colleagues after coming under one roof (20%). In the context of IJV (see Table 6.23), participants highlighted the effect on work practices (47%) and work culture (42%) as important outcomes of IJV; they think processes are now more streamlined and systematic. The other important outcomes are effect on individual development (42%) and effect on employee mind-set (37%).

Individual level - Emergent Outcomes of M&A			
Outcome		**% of Participants**	**Exemplary Quotations**
Acquisition	*Improved Infrastructures and facilities -* 100% in total	*100% of the acquired staff (out of 3)*	*"I felt very good, I felt good on shifting, and I liked the area and its life style. I liked to work, a man can work whole-heartedly if there is a good place, and then you feel interested in doing work. If the place is worse, then work cannot be done." (C_711_0019, Acquired Workman)*
	Improved Work culture - 100% in total		*"Their men were not proper, all were 15-20-25-30-35 years in services, Whenever they wanted they fought among themselves and this didn't reach the owner, they used to beat each other up, here it is not like that." (C_711_0019, Acquired Workman)*
	Improved Work Practices - 100% in total		*"It's easy now because the full job comes from outside. I have to only assemble parts now." (C_711_0020, Acquired Workman)*
Merger	Broadened work spectrum – 20% in total	*67% of Merger Employees (out of 3)*	*"If I was handling something then was given something else also to handle because of the expansion."(D_711_0023, Senior Executive – M&A Firm)*
	Increase in face to face communication with colleagues – 20% in total	*25% of Merger General Manager (out of 4), 33% of Merger Employees (out of 3)*	*"Talking over the phone and talking face to face is a different things, now our relationship is very good... Much better and work activities are faster because we are face to face." (A_711_0013, Senior Executive – M&A Firm)*
	Increase of HR focus on workers – 10% in total	*33% of Merger Employees (out of 3)*	*"There are a lot of changes. At first the workers were not free to talk about their problems to the HR but now since HR Sir does his rounds we can approach him and tell him if we have any problems and he will try to solve the problem." (A_711_0051, Worker – M&A Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.22 - Individual level - Emergent Outcomes of M&A

Individual level – Emergent Outcomes of IJV		
Outcome	**% of Participants (out of 19 in total – 9 General Managers, 10 Employees)**	**Exemplary Quotations**
Positive effect on the work practices – 47% in total	*66% of IJV General Managers, 30% IJV Employees*	*"Now everything has become systematic, a system has been introduced and a process and discipline is being followed." (E_711_0041, Shop floor Assistant – IJV Firm)*
Positive effect on the work culture - 42% in total	*11% of IJV General Managers, 70% of IJV Employees*	*"Huge difference. As I told you previously that earlier we used to work over time but now it is not required. A lot of improvement has taken place." (E_711_0033, Assistant – IJV Firm)*
Positive effect on individual development - 42% in total	*80% of IJV Employees*	*"I feel good as I can do more work now as compared to previous condition. This improvement is in me." (E_711_0033, Assistant – IJV Firm)*
Positive effect on employee mind set – 37% in total	*22% of IJV General Managers, 50% of IJV Employees*	*"If the material gets rejected abroad then the company has to bear heavy losses so we have to be sure to "Do it right first time; every time". So we have to give quality work so that the operator abroad should appraise "what a good quality work has come from Organization ABC!" (E_711_0044, Worker – IJV Firm)* *"Now that we are an international company, that's why we should be updated....mind set change is definitely there" (E_711_0033, Assistant – IJV Firm)*
Improvement in Management perception – 26% in total	*CEO of the Company, 44% of IJV General Managers*	*"Earlier you would find management was always first taking the step in the Indian market....and then, you know, upgrading it to make it acceptable globally, but after the JV it would be make it first acceptable globally, whether you try it in India is your prerogative" (E_711_0030, General Manager – IJV Firm)* *"I can see the changes from what was four years back and today, today I can boost on my product, I can boost on my delivery time, I can boost on my commitments, I can say yes I can deliver this." (E_711_0028_0029, Manager – IJV Firm)*
Positive effect on growth opportunities - 21% in total	*44% of IJV General Managers*	*"So this change was giving me an idea that there will be a different remarkable change in my portfolio because I have already been informed that definitely I am going to look after this area, the JV product." (E_711_0028_0029, Manager – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.23 - Individual level - Emergent Outcomes of IJV

6.6. Role of Stabilizing /Negative Feedback

Plowman *et al.* (2007) claim that negative feedback in a system act as a force that re-stabilizes the system. They state that the role of negative feedback is to dampen "the effect of a change and take a system back to stability" (pg.520). In the context of M&A and IJV at Organization ABC, the stabilizing/negative feedback loops which regulated the positive amplifying actions/positive feedback were highlighted by two organizing themes. Firstly, the stabilizing loop can be provided by emergent unintended system-wide outcomes (or consequences) of M&A and IJV, and secondly ongoing existing internal challenges faced by Organization ABC serving as the negative feedback loops. It is not to imply that unintended outcome is equal to negative feedback, but to entail that unintended outcomes or consequences get combined with negative feedback to reduce the amplification of positive feedback and stabilize the change. These stabilizing/negative feedback loops anchored the major transformations such as M&A and IJV and prevented Organization ABC from achieving the full potential of M&A and IJV. It controlled the amplifications provided by actions such as patterns of emotions, individual and organization challenges. It also further limited the potential that could have been provided by recombination dynamics of individual and management actions. The emergent unintended system-wide outcomes of M&A and IJV and ongoing internal challenges are discussed below across organizational and individual levels, in the context of merger, acquisition and international joint venture with associated exemplary quotations. Figure 6.6 is the thematic network diagram for the global theme 'stabilizing/negative feedback'.
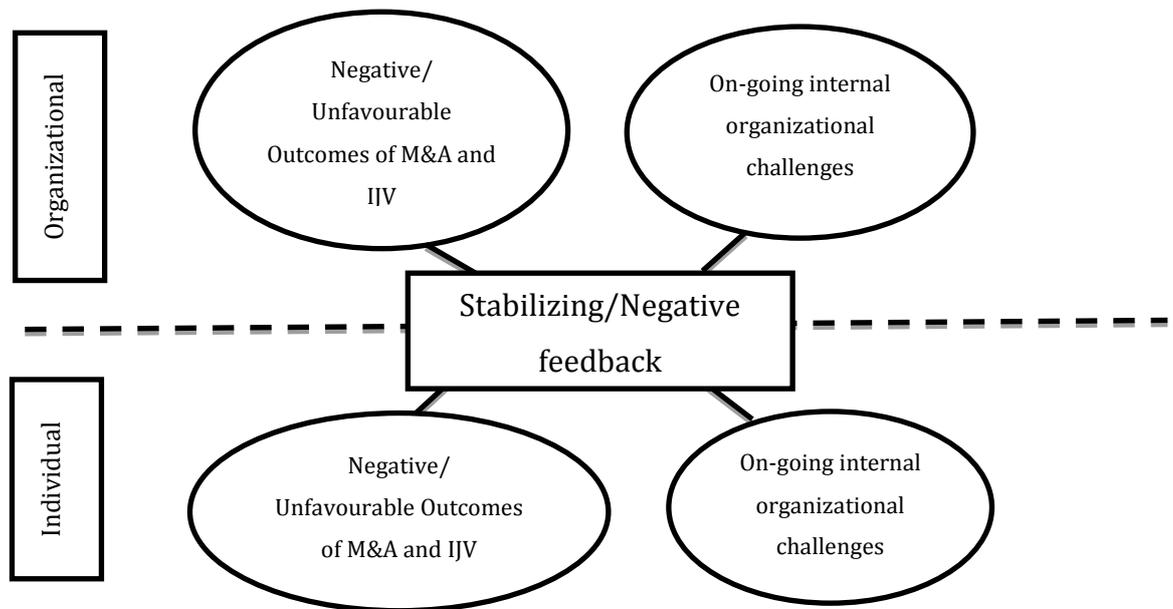
Figure 6.6 - Role of Stabilizing/Negative Feedback

6.6.1. Emergent Unintended Outcomes of M&A and IJV

6.6.1.1. Organizational level - Unintended Outcomes of M&A and IJV

Along with many intended outcomes, the analysis has highlighted multiple unintended outcomes of M&A and IJV at an organizational level. Table 6.24, Table 6.25 and Table 6.26 lists these unintended outcomes of M&A and IJV along with the percentage of participants who shared these views. These are supported with exemplary quotations from the interviews. As can be seen from Table 6.24, in the context of acquisition, problems with the acquired owner, skill dependency and getting mature as a manufacturing division have emerged as unintended outcomes of the acquisition (36% out of 19 participants in total from M&A Firm). The acquired owner has returned to selling the same products, leading to increased competition for Organization ABC. Moreover, there are only a few acquired staff left within the organization with the know-how of the acquired machines. These staff are closer to retirement and still their knowledge has not been completely transmitted to the acquiring staff. In spite of the organization's intention to move completely into manufacturing (see Table 6.25), unintended emergent outcomes, along with other on-going internal challenges (see section 6.6.2), have stopped the organization from reaping the full benefits from the acquisition. In the context of the merger (see Table 6.25), a shift toward manufacturing (40%), and skill dependency (20%) and cross divisional roles not being rendered (10%) have

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emerged as unintended outcomes. The shift toward manufacturing illustrates a shift in focus from the intention with which the merger was completed. Merger of all business divisions brought all business divisions under one roof but now attention is focused more toward manufacturing businesses (Packaging and Tooling) over Agency. This is followed by skill dependency within the merged firm, where the centralized service team of one division cannot service the products manufactured by other business divisions. COO of the organization also expressed that cross divisional roles have not being rendered within the organization in spite of bringing all divisions under one roof. In context of IJV (see Table 6.26), on time delivery (21%) has been highlighted as the main issue after IJV as the organization is struggling to meet the delivery commitments. Moreover, quality and rejections (16%) are also an issue as the Organization ABC is finding it difficult to meet the quality demands of the American partner. The organization seems to be managing a paradox (16%) between quality and on time delivery. These unintended outcomes have led to one of the new general managers doubting the number 1 position of the organization.

Organizational level – Emergent Unintended Outcomes of Acquisition		
Outcomes	**% of Participants (out of 11 in total – 1 CEO, 1 COO, 3 General Managers, 3 Managers, 3 Employees)**	**Exemplary Quotations**
Problem with acquired owner Competition - 36% in total	*67 % of Acquired staff (out of 3), 100% of Acquiring Employee (out of 1) and 33% of Acquiring General Managers (out of 3)*	*"Today similar machines are made by lot of other people in the market so to be in the competition with our kind of an overhead is difficult. I would say this acquisition was done with very good intention but today the same person who gave us the acquisition is also in parallel making those machines separately so he is back again in the same business that we are into and we have elevated his product value in the market, so he is comfortable to sell it at slightly higher price so that acquisition I would say was a good decision at that point of time but we did not take it forward, we could not take it developmentally, we could not take it further, so it remained there". (B_711_0018, Deputy General Manager – M&A Firm)*
Skill dependency - 36% in total	*50% of Acquiring Managers (out of 2), 100% of Acquired Managers (out of 1)*	*"To tell you the truth, the acquired employees who are working here, their career is almost toward an end, most of them are approaching retirement age. They are at their place but new joinees come, they see, they feel this is not a correct job then they leave.....But many times we try to send the acquired guys for servicing because they have more awareness about the acquired machines and they are sent mostly for the service." (A_711_0021, Deputy Manager – M&A Firm)*
Not a matured business division - 36% in total	*100% of Acquiring Managers (out of 2), 33% of Acquiring General Managers (out of 3)*	*"Still we have not reached our required output. Our main company is still backing us. Some 1-2 years back, this is what I have heard, that this company is not making profit" (B_711_0014, Manager – M&A Firm)*
Higher Cost of overall Acquisition – 9% in total	*CEO of the company*	*"We did a lot for the acquired employees. We shifted the premises. We sorted the travelling for the acquired employees. So that acquisition ended up costing us more. After the acquisition, we had to spend a lot on these things." (CEO – Organization ABC)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.24- Organizational level - Emergent Unintended Outcomes of Acquisition

Organizational level – Emergent Unintended Outcomes of Merger		
Outcomes	**% of Participants (out of 10 in total – 1 COO, 4 General Managers, 2 Managers, 3 Employees)**	**Exemplary Quotations**
Gradual Shift of focus toward Manufacturing division – 40% in total	*100% of Merger Managers (out of 2), 50% of Merger General Managers (out of 4)*	*"We need to drive, we have to slowly drive. Now if you see that this is the trend at which we are moving. We have to make things for ourselves and have our own products in the market rather than depending on an agent or on an agency concept where you depend on a principal who might not go with our concepts. It is like a marriage which can get divorced at any moment. If you have your own products then it's a different thing. So being a one roof solution provider is still there at the back of the mind but slowly we are moving towards the better grade but that is happening slowly – slowly, you don't feel the change so fast." (A_711_0047, Business Head – M&A Firm)*
Skill dependency – 20% in total	*50% of Merger Managers (out of 2), 25% of Merger General Managers (out of 4)*	*"Whatever machine, we build is skill-oriented. The printing machine if I send one person he cannot commission it. Instead, if I send another person he sets the same machine and the machine works very well….So rather than the system there is skill involved. So if the thing is dependent on the skill of an individual then we have a problem. So after sales service support particularly in my machines I don't get any support" (B_711_0018, Deputy General Manager – M&A Firm)*
Cross Divisional Roles not rendered – 10% in total	*COO of the division*	*"There are a lot of advantages that we still can pull out of this, if you actually cut a little part of your EQ and get out of the scene of business and start listing and mapping the kind of activities that you have and matching them with the role plays. Probably you would still be able to bring a lot more efficiency which in my personal opinion you have still not got." (A_711_0052, COO – M&A Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.25- Organizational level - Emergent Unintended Outcomes of Merger

Organization level – Emergent Unintended Outcomes of IJV		
Outcomes	**% of Participants (out of 19 in total – 9 General Managers, 10 Employees)**	**Exemplary Quotations**
On time delivery issues – 21% in total	*44% of IJV General Managers*	*"See basically dispatch dates, deadlines of the particular products - we are not able to maintain that till now, we are still lagging. We are unable to maintain around 70% of product on the date." (E_711_0031, Senior Manager – IJV Firm)*
Quality and Rejections issues – 16% in total	*33% of IJV General Managers*	*"I would say the rejection control is a big worry for us; the quality is really eating our profit." (E_711_0046, Manager – IJV Firm)*
Managing Paradox between quality and output – 16% in total	*22% of IJV General Managers, 10% of IJV Employees*	*"We need to maintain a fine balance between maintaining a reasonable good quality with a very good output." (E_711_0042, Senior Manager – IJV Firm)*
Number 1 position is very shaky – 5% in total	*11% of IJV General Managers*	*"We are number 1, but it will be not very difficult for competition to, you know, what you call, unseat us from that position. At the moment, our position is shaky, we are number 1 but it is shaky, we can be displaced to number 2 very quickly." (E_711_0042, Senior Manager – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.26- Organizational level - Emergent Unintended Outcomes of IJV

6.6.1.2. *Individual level - Emergent Unintended Outcomes of M&A and IJV*

Along with many intended outcomes, the analysis has highlighted multiple unintended outcomes of M&A and IJV at an individual level. Table 6.27 and Table 6.28 list these unintended outcomes of M&A and IJV along with the percentage of participants who shared these views. These are supported with exemplary quotations from the interviews. As can be seen in Table 6.27 and Table 6.28, there are several people, culture, communication and work practices-related issues highlighted by participants from both M&A and IJV Firms. In the context of people issues as an outcome of M&A, it has been highlighted that acquired workers are less confident than before as their work is now vendor-dependent. Also, they compare their existing formal management with their previous informal owner. M&A participants have also highlighted that they find seniors are now less approachable as the organization is bigger. At the same time, performance management is highlighted as a struggle in a bigger merged entity. Interpersonal issues have increased amongst employees, according to one of COO of the M&A Firm. At the same time, one of the managers highlighted that even after four years of M&A, it seems as if employees are working to prove someone else's (management) dreams and feel their growth has been left behind. In the context of cultural issues as an outcome of M&A, it has been highlighted that in spite of being under one roof as a merged entity, there are three distinct divisions with three different cultures. There persists a lack of emphasis on the one-roof concept internally and sense of belonging across divisions is missing. Moreover, work practices after M&A have not changed and there are training and development issues leading to suffering end-of-line workers. Communication issues have been highlighted in the context of email problems where seniors are copied into in email correspondence, leading to interpersonal issues.

In the context of people issues as an outcome of IJV, it has been highlighted that participants undertook learning initiatives for the IJV but their higher expectations have not been met by the management. Moreover, there exists an emphasis on quality, but workers believe a 10 micron error should be acceptable, whereas management refuses to accept such a range of error. IJV participants highlighted contradicting communication issues as an outcome of IJV by comparing the new email culture with personal interaction. Also, participants highlighted that only a few employees have communication access with the foreign partner leading to

conflicting views on communication access. Cultural issues have also been highlighted as participants now compare Indian and American work culture, Indian and export customers and working for domestic and export divisions of IJV Firm. The analysis has highlighted participants' preference toward American work culture, the export customers and export division of IJV Firm.

Individual level – Emergent Unintended Outcomes of M&A			
Outcomes		**% of Participants**	**Exemplary Quotations**
People Issues – M&A – 68% in total	*Lack of approachability to seniors after M&A*	*60% of M&A Managers (out of 5), 37% of M&A Employees (out of 8)*	<u>Acquisition</u> - *"It is different. Previously, we used to talk directly to our boss but here there are bosses, there is one boss on top of another." (C_711_0020, Acquired workman)* <u>Merger</u> - *"Reaching my HOD has become a little bit difficult now. For me fixed time like 3 to 3.30 only, when I can go and visit, in the meantime if I want something urgently, I have to hold my job till 3 o'clock; only then I can go and disturb that is the situation. Earlier it was free communication and I was free any time to knock on his door and go and sit and discuss, which is not the situation now." (A_711_0017, Senior Manager – M&A Firm)*
	Acquired workers are less confident	*100% of Acquired Staff (out of 3); 100% of Acquiring Managers (out of 2)*	<u>Acquisition</u> - *"First how was it, they had to make it themselves and assemble it themselves. Here 90% of material is given by somebody, there is a vendor team. As much confidence they had on their own work, they don't have that much confidence on vendor's job because maximum number of times they get rejections or rework….So their confidence level was high, now that confidence level is low" (A_711_0021, Deputy Manager – M&A Firm)*
	Acquired workers compare owners		<u>Acquisition</u> - *"Our previous owner himself used to step up and come to our home if there was a problem. Now I've had an operation, after my operation not even one person here came to ask after me to date. Yes, not even one of the HR people has called me, I had bypass surgery, I felt very hurt, all the big bosses need me for work, but not a single HR person has asked about me to date." (C_711_0022, Acquired Manager)*
	Interpersonal Issues	*COO of the division*	<u>Merger</u> - *"I think the borders are a little bit opened they [merged employees] are coming closer and there is a lot more to do in order to occupy themselves. But they have started making wars among themselves I would say. I'm talking about the agency division, so I am trying to say more interpersonal issues that are there" (A_711_0052, COO – M&A Firm)*
	Proving someone's else's dreams	*20% of M&A Managers (out of 5 in total)*	<u>Merger</u> - *"It is your dream and we are proving it; it is going on like this; we are proving someone else's dream. When I joined, there was passion for doing the work and there were plans that we will do this and do that, even now we are doing things. But it feels as if we are doing the work physically but mentally we are absent. So if this can be changed then that would be better. This will not be beneficial only for me, but it will be for the growth of the whole company." (A_711_0021, Deputy Manager – M&A Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.27 - Individual level - Emergent Unintended Outcomes of M&A

Individual level – Emergent Unintended Outcomes of M&A			
Outcomes		**% of Participants**	**Exemplary Quotations**
People Issues – M&A – 68% in total	*Performance Management in a larger organization after M&A*	*20% of M&A General Managers (out of 5 in total)*	*"Internal expectation management is the biggest challenge I feel, after this integration. See what I feel is, an employee if he is a part of a group of maybe 10 people and he is a positive person, it is easier for him to shine in 10 people and when the same person, is put in a group of 100 people today and of course when you are doing these mergers, the parameters of performance changes every day. Now putting himself in that parameter of change and trying to prove his or her worth, it sometimes becomes a challenge for the person if he is not flexible enough. Any human mind, it always resists change." (D_711_0025, Deputy Manager – M&A Firm)*
Cultural Issues – 26% in total	*Lack of Emphasis and sense of belonging after merger*	*40% of M&A General Managers (out of 5)*	<u>*Merger*</u> *- "See the objective over here must have been probably defeated. What I could say is even if we feel that we are all under one roof, we are one kind of unity - that must be the objective of making this. Unfortunately that feeling has never percolated anywhere. If I go back to any of those organizations [divisions]; I am from packaging and this is not the packaging division so we do not have a sense of belonging in each of them [divisions]" (B_711_0018, Deputy General Manager – M&A Firm)*
	Three distinct cultures in the Organization	*80% of M&A General Managers (out of 5), 20% of M&A Managers (out of 5)*	<u>*Merger*</u> *- "Yes definitely there were three distinct cultures in three companies earlier. And we could find that when we tried to mix them altogether, it was not working in the same synchronization as they would independently. There were three very different companies trying to operate in their own zones. Now when we put them altogether, yes we could find differences of opinion and everything coming into the fore. So now although the companies have merged, more or less the operations are being handled differently because the product management and team and all is different. As of now, even though at the customer front it is same, since the product managers and management teams are different from different line of products. It is not easier to come into those conflicts now." (D_711_0025, Deputy Manager – M&A Firm)*

All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.27 (continued) - Individual level - Emergent Unintended Outcomes of M&A

Individual level – Emergent Unintended Outcomes of M&A			
Outcomes		% of Participants	Exemplary Quotations
Work practices-related issues – 42% in total	*No improvement in ways of working*	*20% of M&A Managers (out of 5), 25% of M&A Employees (out of 8)*	*"I feel maybe we are at the same stage as we were four years ago. We may have increased the number of products. Earlier there were limited products but now the range has increased but the way of working is the same and we don't see any changes to that effect. Technology wise we have improved but till now we are at the same place." (A_711_0021, Deputy Manager – M&A Firm)*
	End of line suffers	*20% of M&A General Managers (out of 5), 40% of M&A Managers (out of 5)*	*"Finally the drawings are not made ready within the scheduled time, again the total project is getting delayed, there is a pressure and end of the line who is the assembly person is the end of the line so he is getting pressure, he is sacrificing his family way, he is coming on Sundays to complete the target; these things are there." (A_711_0017, Senior Manager – M&A Firm)*
	Training and development Issues	*20% of M&A General Managers (out of 5), 80% of M&A Managers (out of 5); 25% of M&A Employees (out of 8)*	*"Individual development in the sense company is not doing such developments actually." (A_711_0017, Senior Manager – M&A Firm)*
Communication related issues – 50% of COOs (out of 2)	*Email issues*	*50% of COOs (out of 2)*	*"Now this is how an issue begins and now what I'm saying is the mistake here that is happening probably is the cc copies to the immediate seniors. I would cut this. Don't keep cc copies because what happens is....in the middle of the night as I go through the mails I see this as an interpersonal issue growing." (A_711_0052, COO – M&A Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.27 (continued) - Individual level - Emergent Unintended Outcomes of M&A

Individual level - Unintended Outcomes of IJV			
Outcomes		**% of Participants**	**Exemplary Quotations**
People Issues – 32% in total	***Learning initiatives Vs. Unmet Expectations***	*20% of IJV Employees (out of 10)*	*"Nothing has changed everything is same as it was before. I have learnt many new things associated with the work, for me it was important but the company does not require my extra services." (E_711_0041, Shop floor Assistant – IJV Firm)* *"We are willing to learn more and do more but they should also consider our better increments into the bargain." (E_711_0045, Executive – IJV Firm)*
	"10 micron error" mind-set	*CEO of the company, 10% of IJV Employees (out of 10)*	*"If you see market has tolerance of 10 microns on our product. Within 10 microns can work in the market. But then they decide that it is not going to work at all. So the person deciding remains stubborn. We know that it will work but they don't accept it." (E_711_0039, Union Leader – IJV Firm)*
Communication Issues – 89% in total	***New Email Culture Vs. Personnel Interaction***	*CEO of the company, 50% of IJV Employees (out of 10) Vs.*	*"Emails were not working very seriously before JV but after JV our perspective changed. Management has given directions that you need to work on mails because anything verbal is not going to get recognized, accepted and rewarded." (E_711_0046, Manager – IJV Firm)* ___Vs.___
		11% of IJV General Managers (out of 9), 60% of IJV Employees (out of 10)	*"If you can reach there, then talk face to face, have a communication, otherwise you will have to write a mail then you will have to keep their HODs in CC, with that the work does not get done, it gets spoilt instead." (E_711_0034, Assistant – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.28- Individual level - Emergent Unintended Outcomes of IJV

Individual level - Unintended Outcomes of IJV - Exemplary Quotations			
Outcomes		**% of Participants**	**Exemplary Quotations**
Communication Issues – 89% in total	*Limited Communication access with American Partner Vs. Belief about Direct Communication Access*	*55% of IJV General Managers (out of 9), 80% of IJV Employees (out of 10)*	*Employees* – "It is via-via. I interact with my boss then he interacts with his boss & then finally he interacts further with the joint venture company employees." (E_711_0033, Assistant – IJV Firm) *Vs.* "It's better to go to the senior. If he knows that thing, it's good, and if he doesn't then he will ask them." (E_711_0036, Senior Engineer – IJV Firm)
		55% of IJV General Managers (out of 9)	*Managers* – "I don't have any right to directly speak with my US counterpart if it is related to products. If it is marketing only one person has the right to speak to that person [US counterpart] and he will interact with him….So in the organization, we don't have direct communication with them. There are four to five people who can communicate with them." (E_711_0031, Senior Manager – IJV Firm) *Vs.* "See, people should have access. Suppose if I have some doubts, if I directly communicate to my [US] counterpart I will get direct feedback. Now when I am communicating to my boss whatever I want he will communicate to him 80%, then he will communicate to his counterpart 60% and whatever information I will get is 20% to 40%."" (E_711_0031, Senior Manager – IJV Firm)
Cultural Issues – 79% in total	*Indian Vs. American partner organizational culture*	*77% of IJV General Managers (out of 9), 10% of IJV Employees (out of 10)*	"The biggest concern…..we are regularly discussing internally that even after joint venture our culture is not changed. We are still working with the Indian mentality, Indian culture. I'm not saying it's a bad culture or it's a very poor culture but the expectations if you see….so culture is a big problem that even till today we are trying to work out" (E_711_0046, Manager – IJV Firm) "The main thing is that we have to get transparent because normally in India what I have seen in so many companies is that we don't give all the details to the operators or to the people down the line, we keep something in our hand. There [US] they are totally open." (E_711_0038, Deputy Manager – IJV Firm)
	Indian Vs. International customer challenges	*33% of IJV General Managers (out of 9), 10% of IJV Employees (out of 10)*	"The customer mind set, see international customers, now they know that they are going to import this from India so there is going to be some lead time of 4 weeks-5 weeks, possibly 6 weeks, so they are willing to give you time, but domestic customers no, they will not give you time… Indian customers want quick deliveries without paying any premium for that." (E_711_0042, Senior Manager – IJV Firm)

All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.28 (continued) - Individual level - Emergent Unintended Outcomes of IJV

Individual level - Unintended Outcomes of IJV - Exemplary Quotations			
Outcomes		**% of Participants**	**Exemplary Quotations**
Cultural Issues – 79% in total	*'Happy' (Export Managers) <u>Vs.</u> 'Unhappy' (Domestic Managers) Managers in the IJV Firm*	*44% of IJV General Managers (out of 9)*	*"If I were to rate myself, I would say I'm the happiest person in the organization because I've got good exposure of handling almost all the departments of the company." (E_711_0046, Manager – IJV Firm)* *"What happens is in export whatever we are doing there we don't have that much pressure of workload. Because in exports the drawings that I am getting are totally and purely order based form." (E_711_0038, Deputy Manager – IJV Firm)* *<u>Vs.</u>* *"We should have communication channel between their co-partners and us which is missing. At least not with all levels but at least some assistant manager level." (E_711_0031, Senior Manager – IJV Firm)* *"The thing is that they [Exports Department] have the cushion of having a better lead time, a better negotiated lead time, with their customers [international customers] as compared to us. For example, if I were to send the same product to a customer in UK and if I tell him that sir I will give it to you in 6weeks he will be comfortable with it. He knows he is importing this stuff from India but the Indian customers will want it in 20days so making a particular product in 6weeks and making the same thing in 20 days for sure it is going to have its bearing on the product quality." (E_711-0042, Senior Manager – IJV Firm)*
	Comparison of stress with American culture	*33% of IJV General Managers (out of 9), 30% of IJV Employees (out of 10)*	*"See when I visited there, their working time will be 8 to 4:30, at 4:30 all are leaving. Here we don't have any working hour's limitations..... Though we are saying that we are much stressed relieved but still I am not able to leave my factory at 6 o'clock within my normal time." (E_711_0031, Senior Manager – IJV Firm)* *"The 3rd thing that I would put is the stress factor...it is a stressful job." (E_711_0042, Senior Manager – IJV Firm)* *"For culture I can say, may be, we can follow some of American partner's culture. Instead of working under stress, we should be relieved and do our work...We work with lot of stress and lot of tension." (E_711_0037, Executive – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.28 (continued) - Individual level - Emergent Unintended Outcomes of IJV

6.6.2. On-going Internal Challenges As Negative Feedback

The analysis of the data has brought forward several 'ongoing internal challenges and issues' deeply embedded within both the sub-organizations M&A firm and IJV firm which are part of Organization ABC. It is deemed important to discuss these common and important internal challenges to highlight how they limit the organizational growth and brings to the fore deeply engrained people, communication and cultural challenges faced by Organization ABC. These common issues act as negative feedback as they prevent organization ABC from attainting the full potential of its strategies. These 'ongoing internal challenges and issues' comprises three organizing themes – people, communication and cultural issues which are stated below.

On-going Internal Challenges		
Issues	M&A Firm (out of 19)	IJV Firm (out of 19)
People	21%	53%
Communication	37%	90%
Culture	53%	37%

Table 6.29 – On-going Internal Challenges

6.6.2.1. People Issues

In the current organizational scenario, both management and employees have highlighted several people-related issues in the organization. The common issues arising from both M&A firm (21%) and IJV Firm (53%) are discussed in this section. Workers from both the organizations have highlighted that their suggestions are not heard by the management. Below quotes highlight that they feel they do not have a voice and are at a smaller level within the organizational hierarchy.

> "Each department has been given in the hands of individual bosses so they should check that why rejection is high. Since I am a worker, I consider myself smaller." (E_711_0039, Union Leader – IJV Firm)

> "From the very beginning I have been telling them that the finishing part which is entrusted to me cannot be done on the floor, it has to be done on a platform, but till today they have not heeded to my request." (A_711_0051, Worker – M&A Firm)

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Another common issue experienced in both the organizations was about people going back to their old routines. As expressed by one of the employees, *"if we are told today that this-this is to be done, they will do it for 1-2 days but then again they will return to their routine" (E_711_0040, Design Engineer – IJV Firm)*.

Managers in both the organizations agreed that *"people are always the key points " (E_711_0030, General Manager – IJV Firm)* but one of the Chief operational officers vividly stated that *"Basically, to identify, to make the best utilisation of people and announce their care has been a weak area for us."* (A_711_0052, COO – M&A Firm). On similar lines, other managers highlighted issues such as lack of decision making amongst sub-ordinates, slow response to change, resistance to change and mismatch of values and thoughts mismatch down the line. As stated by one of the managers, *"Due to management culture and the people that we have and the ones we are recruiting as subordinates, their mind sets have not changed." (E_711_0038, Deputy Manager – IJV Firm)*.

6.6.2.2. Communication Issues

The outcome of the analysis has highlighted communication issues in both the organizations i.e. M&A Firm (37%) and IJV Firm (90%). Many employees and managers from the IJV organization highlighted on-going struggle between various departments because of incomplete work information being passed on from one department to another, causing a communication gaps and interdepartmental conflicts. For example, one of the managers stated that his relationship with the shop floor department *"is often I would say at a crossroads. There are arguments, counter arguments, we do have with production guys, with QA guys, we do have that yes" (E_711_0042, Senior Manager – IJV Firm)*. He thought that employees in the production and quality department have old mind sets and take things casually. They do not understand customer requirements and on-time delivery requirements. Similar communication gaps, conflicts and lack of interaction were also highlighted in the M&A Firm. A newly joined general manager thought that there is more struggle, convincing and wasting time involved in internal communication. Emails are shown as evidence to prove that work is done by the concerned individual. Hence, communication does not take place in the true sense in the organization.

"When I asked that guy he said, 'Sir I have already given the requisition'. So what have you done further? Like follow-up action? No, sir. From next time onwards I will write an e-mail and get a confirmation, so I don't want that e-mail communication really in that sense. I want communication to happen in a true sense." (B_711_0018, Deputy General Manager, M&A Firm)

Other important communication issues such as lack of periodical meetings, seniors involved in problem situations and use of strong communication to get work done were also highlighted in the current scenario.

6.6.2.3. Organizational Culture Issues

Organizational culture issues were central amongst all the issues discussed in the current context at both M&A firm (53%) and IJV firm (37%). Basic themes such as lack of professionalism and lack of motivation from the management were stated by participants in both the organizations. Lack of professionalism can be seen through instances where employees mentioned different scenarios about how they get work done in the organization. Examples from IJV Firm highlighted that numerous reminders are required to get the work done; someone can get their work done faster if they are close to the concerned individual; otherwise, people have to make repeated requests to get their work done. Participants in M&A Firm stated the prevalence of an 'it will do' attitude in the organization, where work is not taken seriously. Moreover, a newly joined general manager believes there persists a lack of ownership culture at all levels of the firm. It was highlighted that there exists a blame culture in the organization, as indicated by one of managers.

"That is a very common thing. If I make a mistake I will put the blame on you, you have made the mistake. That happens in all companies. It is same here also." (A_711_0017, Senior Manager – M&A Firm)

Female employees in the M&A Firm especially highlighted problems with the culture of the organization. They felt they were bullied when they interacted with the male members of the organization.

"If I have to talk about the culture in Organization ABC overall then I will have to pick out some negative things. For example I have noticed one thing,

that if I talk too much to a person, then my name gets spoilt, but I don't understand the logic behind that."(D_711_0023, E<5years)

Hence, as rightly commented by one of the managers, *"culture is a main concern for us" (E_711_0046, Manager – IJV Firm)*

6.6.2.4. *Product and Process Issues*

Table 6.30 below indicates the product and process issues in the current scenario in the M&A and IJV Firm. The common issues across both firms were skill dependency and delivery delays.

Product and Process Issues		
Acquisition		
Weak Departments – 54% in total	**Design department issues**	*"If I have to speak openly then our design department is not so strong enough." (A_711_0021, Deputy Manager – M&A Firm)*
	Servicing department issues	*"Service department again is a big weakness in the department." (A_711_0017, Senior Manager – M&A Firm)*
	Absence of Project/Planning department	*"There is no project department, it is one of the drawback in the company." (A_711_0017, Senior Manager – M&A Firm)*
Skill Dependency - 36% in total		*"To tell you the acquired employees who are working here their career is almost toward an end, most of them are attaining retirement age. They are at their place but new joinees come, they see, they feel this is not a correct job then they leave…..But maximum times we try to send the acquired guys for servicing because they have more awareness about the acquired machines and they are sent mostly for the service." (A_711_0021, Deputy Manager – M&A Firm)*
Production Issues - Delays in Delivery - 36% in total		*"Always there will be delay, they will come and ask how this has to be done so we will tell some information and lot of corrections will come in the drawing that will take the delivery to some extension. Again there will be pressure from our CEO why this is not happening." (A_711_0017, Senior Manager – M&A Firm)*
Merger		
Merger Skill Dependency – 20% in total		*"Whatever machine we build is skill-oriented. The printing machine if I send one person he cannot commission it instead if I send another person he sets the same machine and the machine works very well….So rather than the system there is skill involved. So if the thing is dependent on the skill of an individual then we have a problem. So after sales service support particularly in my machines I don't get any support" (B_711_0018, Deputy General Manager – M&A Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.30 – Product and Process Issues in M&A and IJV Firm

International Joint Ventures	
On time delivery – 21% in total	*"See basically dispatch dates, deadlines of the particular products - we are not able to maintain that till now, we are still lagging. We are unable to maintain for around 70% product on the date." (E_711_0031, Senior Manager – IJV Firm)*
Quality and Rejections – 16% in total	*"I would say the rejection control, is a big worry for us, the quality is really eating our profit." (E_711_0046, Manager – IJV Firm)*

*All the 'out of' numbers have been obtained from Chapter 5 Section 5.4. Table 5.5

Table 6.30 (continued) – Product and Process Issues in M&A and IJV Firm

Table 6.30 section highlighted the negative feedback operating at Organization ABC in the form of negative M&A and IJV outcomes combined with on-going organizational challenges. There exists presence of people, communication, culture and product and process-related challenges .

6.7. Recombination Dynamics / Self-organization in the Current Scenario

Plowman *et al.* (2007) states that both positive and negative feedback are important for a change to occur. They state that "although the negative feedback helped stabilize the system at each new level of emergence, both positive and negative feedback continued. (pg. 536)". This system state is characterized by Stacey (1996, pg. 53-54) as 'bounded instability far from equilibrium. The key discovery about the operation of nonlinear feedback loops is that stable equilibrium and explosively unstable equilibrium are not the only endpoints of behavior open to such systems. Nonlinear systems have a third choice: a state of bounded or limited instability far from equilibrium, in which behavior has a pattern, but it is irregular. Plowman *et al.* (2007) argue that both positive and negative feedback loops operate in organizations. This was evident in the case of Organization ABC, whose M&A and IJV initiatives oscillated between positive and negative feedback loops. The co-existence of both amplications/positive feedbacks and stabilization/negative feedbacks keeps Organization ABC in the zone of bounded instability. These contradicting forces operate simlutaneously, pulling the organization in different directions (Stacey, 1995; Plowman *et al.*, 2007). Stacey (1995) argues that this is the state for emergent self-organization to take place. In the context of Organization ABC, these aspects were evident in the data, when the last question of the interview inquired what key changes participants

would like to see in the current scenario. This question brought to fore several suggestions from participants in order to deal with the unfavourable/negative emergent outcomes and the on-going internal challenges at M&A and IJV Firm.

Change Suggestions		
	M&A Firm (out of 19)	IJV Firm (out of 19)
People and Culture-related	90%	100%
Production and Process-related	58%	68%

Table 6.31 – Change Suggestions

Table 6.31 highlights the percentage of participants who provided people, culture, production and process-related suggestions. Anderson *et al.* (2005) state that in order to focus on the non-linearity of a complex system, attention should be on both – 1) small events that lead to large outcomes and 2) large events that have led to small outcomes. The earlier sections of this chapter highlighted how large events such as M&A and IJV led to multiple actions in the organizations. However, this section is bringing to focus based on complexity principles that small events might lead to large outcomes in the future, if the management is open and willing to accept suggestions. These change suggestions from all levels of the organization are highlighted in the following sections.

6.7.1. Change Suggestions for M&A Firm

Organization ABC highlights a shift in attractor pattern from all divisions being under one roof toward a higher concentration of moving toward the manufacturing side of the business. The new attractor highlights the desire of the organization to succeed as a 'manufacturer of machines'. Managers highlighted that the organization should strengthen its manufacturing side. Even though the agency division provides high turnover with low overheads, they would not recommend it to be given solitary importance as it is somewhat unreliable and has high dependency on the Principals (international partners). They visualize the firm being more of a manufacturing entity than an agency entity. This shift in focus coincides with the blow the organization has recently received from one of its very old Principals (a partner) who has broken his business association with the Organization ABC after 15 years. Therefore, the main concentration of M&A Firm is

slowly moving toward manufacturing as compared to the other divisions under the 'one roof solution' concept. The organization is keen on removing its dependence on the agency model of business, whereby it was selling products of external suppliers in India. The organization would like to determine its own future strategy in manufacturing rather than depending on external suppliers. Other managers also believed that it is a logical step to move in the direction of manufacturing. It is believed that the machine manufacturing field is growing. The firm only needs more orders because it does have the facilities to fulfil the demands of the market. However, employees thought that growth is not taking place at the required speed. They thought the organization needs to take more orders based on the size of the infrastructure for mass production. They believed that the organization should grow, as the organization's growth would imply their growth. The organization has set up a new department called the 'New product development' department in the Manufacturing division. The team gathers information from various sources and builds and tests new products for the organization.

Moreover, the desired state would be difficult to achieve unless attention is paid to the above mentioned people, communication and culture-related on-going internal challenges which are taking the firm away from the desired state. Therefore, the organization needs compelling communication channels, as commented by one of the managers for the future. Also, the prevailing manufacturing issues in the organization need to be addressed before the organization can move into the new attractor phase of being a successful manufacturer of machines. Many changes required to attain this desired state with the new attractor were suggested by the employees and the management. These changes are listed below into two categories below: 1) People, communication and culture-related 2) Manufacturing-related.

6.7.1.1. People and Culture-related

Employees' Expectations

50% of M&A Employees (out of 8) stated expectations from the management in the M&A firm. One of the workers highlighted that as the company is making progress, the management should pay attention to its employees' growth as well and monitor whether they are growing along with the firm or not. Female employees

expected management to deal with employees with problematic mind-sets who disrupt the work of other employees and affect the work environment. As one such employee commented,

> *"If they [problematic people] improve themselves or company throws out such people because of whom the environment is getting spoilt then other people will learn and be in control but management has not been doing so for many years, they see it but don't take any action, I hope it will happen if you tell them in the workshop [feedback presentation]". (A_711_0015, Executive – M&A Firm)*

One of the female employees also thoughts that management should be more communicative and set clear priorities regarding the urgency of the work required to be done. Some of the employees were also highly dissatisfied with the human resource department in the organization. They felt that HR was not providing good solutions, facilities improvement and support. As commented by one of the acquired employees, *"I don't think HR here is doing their jobs." (A_711_0015, Executive – M&A Firm)*

This claim was acknowledged by the Chief Operational Officer (COO), who stated that *"Basically to identify, to make the best utilisation of people and announce their care has been a weak area for us." (A_711_0052, COO – M&A Firm).* He also believed that the organization had never had a strong counselling group to help employees understand change and its acceptance. Hence, Organization ABC needs to look into managing people's expectations. As highlighted by one of the managers, aspiration management is a major challenge and requires management support. He thought special attention will be required as now employees are part of a bigger firm and have their own distinct talents and aspirations.

The COO believed that the biggest challenge in the current scenario is about synergizing employees to see the bigger image of the firm. Employees who are far from the organization's expectations need to be brought toward the organization. This can help the organization grow multi-fold in his opinion. He thought that efficiency building is required amongst individuals.

Recruitment

83% of General Managers (out of 6 in the M&A Firm participants) provided suggestions on recruitment. They believed an organizational movement is required in the direction of recruitment. One of the business heads believed that the firm cannot achieve its dream growth rate with the existing thinking and approach. Managers highlighted they require new recruits with more fresh and agile thinking, who are learning individuals, willing to adapt to changes and grow at the rate of the organization's growth. The COO believed vigilant, agile and alert leaders are required to inspire people. As commented by one of the managers,

> *"For Organization ABC with existing people that growth rate may not really happen unless everybody is a learning individual. They should be able to adapt to various changes. Very few people can do that, it is not easy…… So we want people who are more agile in this company and it has to grow at the growth rate that management is thinking to grow." (A_711_0047, Business Head – M&A Firm)*

He suggested it would consume less time to produce more with such individuals in terms of ideas and execution skills. Another manager believed that the selection of people should be right, as per industry demands and based on the company requirement for quick results. Every department should have the right people for the right jobs. As highlighted by one of general managers, the firm needs to recruit capable managers who can venture out, prove; take risk and add to the growth of the organization. He believed changes at micro level can help the company grow. The Business Head of the M&A firm thought that the CEO would be flexible with this recruitment drive if *"youngsters come and prove and deliver results" (A_711_0047, Business Head – M&A Firm).*

Training and Development

26% of M&A participants (out of 19) suggested improvements in training in development at Organization ABC. Skill dependency was observed in the M&A Firm. Employees highlighted that service engineers are unable to resolve customer issues as they do not get enough training, as they are from different divisions. Even service engineers agreed that they did not get enough training regarding products. Even workers did not receive adequate training to help them do their job better.

The organization has not provided or sponsored any career development courses for the employees. As one of the employees expressed:

"Here if I want to do something I have to do it personally and I have to get a 'no objection certificate' from the employer which is further difficult and morning 8 am to 8 pm we have to work that is a hectic schedule actually so development in the sense it is missing academic wise." (A_711_0017, Senior Manager – M&A Firm)

Hence, some managers highlighted that HR should organize training and seminars for knowledge up gradation to keep employees and workers motivated.

6.7.2. Change Suggestions for IJV Firm

There persist people, culture and product and process-related challenges at the IJV Firm. These challenges were discussed in the previous section (see section 6.3.2). IJV participants provided suggestions for these unintended outcomes and on-going challenges. These suggestions are reported in the following sections.

6.7.2.1. *People and Culture-related*

It is suggested that cultural change is very much needed in the IJV Firm. 21% Participants (out of 19) thought that cultural awareness from the American partner organization can help the organization. 16% of participants (out of 19) felt that the Indian organization should adopt the American partner organization's culture in terms of creating a stress free work environment as they felt they were working under excessive stress and pressure. They suggested that stress free culture is required for smooth working and high quality output. As one of the newly joined employee commented,

"For culture I can say, may be, we can follow some of American organization's culture. Instead of working under stress, we should be relieved and do our work." (E_711_0037, Executive – IJV Firm)

One of the newly joined managers believed improving product lead times can reduce the stress in the organization. He also drew a comparison with his previous organization and stated that it is very important for the organization to incorporate a 'No reminder culture' at all levels. 26% of participants (out of 19) specified the need of a professional work environment. One of the newly joined employees stated that people should set their egos aside and work professionally

so that no one's work is jeopardized. However another newly joined general manager insisted on a change in the attitude of people for faster change response. Individuals' perceptions need to be changed in terms of what they are doing and what is expected whether what they are doing is consistent, as highlighted by one of the senior managers.

22% of participants (out of 19) highlighted that management needs to motivate employees to make them feel counted and accountable. One of the employees believed that management and heads of the individual departments should explain to shop floor employees about the IJV, its working, benefits and losses and requirement of good quality work. As vividly stated by a shop floor assistant,

> *"If they talk to me, ask about my problems then I will feel motivated to work harder and give perfection in the job…. I will feel like proving myself…. I will feel motivated to give better output because the seniors or the Director has shown interest in my work so the mindset is better then. Once a month they should make it a point to come and talk to the workers and give a personal touch. And this is definitely missing." (E_711_0041, Shop floor Assistant – IJV Firm)*

Some managers stated the requirement of a team building approach and objective alignment in the organization. One of the newly joined general managers felt management should drive people to change. He thought there might be resistance to change initially but the drive should be stronger. He stated,

> *"This is what the customer is demanding and if we cannot give it to them someone else will. Ultimately, what is going to happen is that we will start losing our market share, we will start losing our hold on our customers and we will slowly be relegated to number 2, number 3, number 4 position and then a day will come when we will be out of business. So this thing needs to be very strongly driven as to why, the casual you know 'WILL DO' attitude, why it cannot work in the modern scenario." (E_711_0042, Senior Manager – IJV Firm)*

33% of IJV general managers (out of 9) felt HR should percolate the thoughts and perspective of management to employees at all levels to strengthen bonding. HR

should counsel employees to encourage decision making. Both companies' HR should learn from each other and improve some of the JV's policies.

In summary, section 6.7 suggested the existing system elements that can be reused, rearranged, reconstructed, re-leveraged, and re-created for recombination (Chiles *et al.*, 2004). It provides ideas from both macro and micro level for recombination/ re-aggregation of resources to increase the current capacity of the overall system (Lichtenstein and Plowman, 2009). It provides a collective suggestion for creative destruction and emergent self-organization for the organization from within the organization. Shaw (1997, pg. 245) states that "in a complex adaptive system, novelty is created bottom-up, not top-down. The local interaction "at play" in the shadow system eventually creates visible outcomes by which this interaction is recognized more widely". She argues that as complexity researchers we work with people to develop their abilities to visualize the complexity dynamic at work. She claims that one cannot identify levers of change as it is not possible to predict the outcomes in longer terms. The best one can do in a human system is find creative ways to make "covert and less conscious" processes in the shadow system "more visible and available for influence" (pg. 248).

6.8. Dissemination of Findings and Feedback to the Company

Phase 4 of the research comprised dissemination of findings and feedback to the company (see Chapter 5 section 5.3 Table 5.2 and Appendix 4). The initial meetings with the organization in Phase 2 resulted in a plan to present the research findings to the TMT after the primary data collection and analysis. However, this request was modified at the end of primary data collection in October 2012 (Phase 3). The contact (i.e. General Manager - Finance) for the research emphasized the dynamic nature of the organization and of the external business environment and requested the research analysis to be reported in the form of an executive report and presented to the TMT in approximately six months' time. The contact was informed that the main findings could be provided only at the end of the project. However, the request for preliminary and on-going research analysis was heeded and preliminary findings were provided in the form of an executive report in May 2013 and were also presented to TMT in July 2013. Walsham (2006, pg.322) states that some form of feedback is an attempt "to give

something of value back to those who participated in the research study". Two executive reports highlighting the preliminary research findings were submitted to the management prior to the presentations. Two presentations were also delivered to the TMT. The audience comprised management only, as the management was not agreeable to involving employees in this phase. Table 6.32 highlights the presentation attendees at both the presentations.

Presentations	Presentation Attendees
1.	CEO of the organization, General Manager HR and Admin and General Manager Finance – Tooling Division (Gate Keeper)
2.	Director and COO - Agency division, COO - Packaging division

Table 6.32 – Presentation Attendees

The executive report and presentations comprised in-depth assessment of M&A and IJV, post-integration issues of M&A and IJV, effect of M&A and IJV at both organizational and individual level, learning initiatives after M&A and IJV and current people, culture and communication issues followed by people, culture and manufacturing-related change suggestions. These findings were further refined and enriched during further stages of analysis for the research. All of the findings except manufacturing-related issues and change suggestions are provided in Appendix 6 as they are not explicitly within the scope of this research and are specific to Organization ABC. Table 6.33 below provides a summary of manufacturing suggestions for M&A firm (see Appendix 6.1) and product and process-related suggestions for IJV firm (see Appendix 6.2) –

Manufacturing suggestions for M&A firm	Product and process-related suggestions for IJV firm
Strengthening and decentralization of design department Outsourcing of design components Production of standardized machines over customized machines Joint venture for design innovation Requirement of an in-house service department Project approach over product approach Requirement of a project department led by a project manager Rebranding and reemphasis of 'One roof solution' concept	Realistic time estimate for product delivery All level general meeting to reduce rejections Monthly and weekly meetings Direct communication access with American partner Permanent head of quality department Implementation of IPQC system Knowledge and training of workers Suggestion boxes at various places in the organization Multiple checkpoints/checklist to reduce passage of incomplete sales order or export information

Table 6.33 – Manufacturing, Product and Process-related Suggestion for M&A and IJV Firm

The presentations were followed by a question and answer session where more information was obtained 1) to triangulate the preliminary analysis and findings; 2) to obtain immediate feedback on the initial analysis; 2) to obtain validation of the researcher's interpretation of the data. Mitleton-Kelly (2011) and Walsham (1995, 2006) recommend reflect-back workshops to report the findings to the participants. This validates interpretation and encourages further discussion. These discussions and valuable insights are then fed back to the research project and refine the research findings. Mitleton-Kelly (2011) claims that this process enhances understanding and enriches the research findings. The researcher was not allowed by managers to record the presentations. However, the researcher took detailed notes on the immediate feedback and comments received during and the end of the presentation and wrote a detailed reflective account within 24 hours after the presentation (Eisenhardt, 1989). The first feedback from the CEO at the end of the presentation was *'You know this organization much more than people who have worked here for years" (CEO, Organization ABC)*. He also provided detailed comments and feedback which triangulated, validated and improved interpretations. The researcher also informed the management that the detailed research report would be provided in the form of the thesis after research completion. At the end of the presentation, the researcher requested feedback from the management and their plan going forward in the form of emails because of the geographical distance between the researcher and the research organization. Since no specific points of contact were provided by the organization for this purpose, TMT members who attended the research presentation were considered viable points of contact to obtain feedback. Director and COO - Agency division (M&A Firm), COO - Packaging division (M&A Firm), General Manager Finance – Tooling Division (Gate Keeper) (IJV Firm) and General Manager HR and Admin were contacted several times from August 2013 – October 2013 to obtain feedback on any plans or discussion that had taken place based on the preliminary research findings; any changes that had been made in the organization as an outcome of the preliminary research findings and their reflection/feedback/perspective on preliminary research findings for their future change management strategies. Three email feedback responses were received from Director and COO - Agency division (M&A Firm); COO - Packaging division (M&A Firm) and General Manager Finance – Tooling Division (The contact) (IJV

Firm) highlighting their understanding of the research outcome from a managerial perspective. Their response helped triangulate the data analysis and findings, provided feedback on the research project and added to the validation of the research. Management did not request any more presentations or reports in the further phases of analysis, except just the final copy of the project thesis, which was considered as an end of the data collection and analysis phase.

6.9. Conclusion

This chapter has attempted to provide a complexity theory-informed interpretation of M&A and IJV management and their emergent outcomes in context of Organization ABC. It argued that M&A and IJV management at Organization ABC can be looked at through lens of complexity to understand their inherent challenges and emergent outcomes. The chapter was based on five global themes – disequilibrium conditions, amplifying actions/positive feedbacks, recombination dynamics/self-organization (part 1 and part 2), emergent system-wide outcomes and stabilizing/negative feedback (Lichtenstein, 2000; Chiles *et al.*, 2004; Plowman *et al.*, 2007; Lichtenstein and Plowman, 2009) which converged the basic and organizing themes from the data analysis. The framework of the dissipative approach provided the structure to bind the research findings. The structured findings provided much richer insights to understand M&A and IJV management at Organization ABC and their emergent outcomes. The next chapter discusses these findings in the broader context of change management and complexity theory literature to further enhance the understanding gained from the case study.

7. Research Discussion

7.1. Introduction

The purpose of this chapter is to compare and contrast the outcomes of the data analysis from the case study (see Chapter 6 – Research Findings) with the extant literature (see Chapter 2 – M&A and IJV Literature Review and Chapter 3 – Complexity Theories). It attempts to address the research objective – To conduct a theoretically grounded discussion of the research findings with reference to M&A, IJV and complexity theories literature (RO6). To attain this objective, this research makes a critical use of a complexity lens to understand M&A and IJV change management practices. It aims to use complexity theories in order to understand patterns of major transformations such as M&A and IJV and their emergent outcomes. To achieve this aim, the primary and secondary data from Organization ABC were collected and analysed (see Chapter 6 – Research Findings). The four dissipative structures constructs – disequilibrium state, amplifying actions, recombination dynamics and stabilizing feedback - elaborated by Lichtenstein and Plowman (2009) with reference to the work of Lichtenstein (2000), Chiles *et al.* (2004), Plowman *et al.* (2007), and Lichtenstein and Plowman (2009) have been used to critically embed and discuss the research analysis (see Chapter 3 – section 3.2.1.1 – Dissipative Structures and Change, Table 3.2 - Theoretical Constructs from Studies of Emergence). Additional complexity literature has also been drawn on to explain new insights obtained from the data analysis, such as the Legitimate System and Shadow System view of organizations proposed by Stacey (1996) and complexity principles elaborated by Hammer *et al.* (2012) (see Chapter 3 – Complexity Theories). The discussion below also compares and contrasts the existing organizational change literature but particularly M&A and IJV literature to discuss the analysis of the case study. The following sections discuss these findings in the light of complexity and M&A and IJV literature insights.

7.2. Organizational Change and Complexity Theories

According to some theorists, organizations are non-linear dynamic open systems (Thietart and Forgues, 1995; Lichtenstein, 2000; Stacey, 1995). Stacey (1995) claims that organizations are driven by non-linear feedback loops as they comprise the choices and actions of human agents who have unpredictable outcomes for their actions. Gemmill and Smith (1985) agree that modern organizations have to

continually transform to adapt to the internal and external complexity. Lichtenstein (2000) also argues that change is the only constant in complex systems like organizations. Damanpour *et al.* (2012) and Sparks (1999) state that strategic alliances such as joint ventures are common in fast changing industries like pharmaceuticals. Empirical support is added to these claims; as a pharmaceutical engineering company, Organization ABC has been rapidly growing with eighteen international business associations, one major acquisition of an Indian organization, one major 50-50 international joint venture and one major internal merger of all business divisions since its inception. The management at Organization ABC chose acquisition and international joint ventures as the strategies for quick expansion of the product range and international market reach. The results from the case study agree with the claim of Beamish and Lupton (2009) and Baughn *et al.* (2011) that M&A and IJV are better business strategies than a go-it-alone strategy. As mentioned in the M&A and IJV literature review chapter (see Chapter 2 section 2.5 – Importance of M&A and IJV, Table 2.2 - Reasons for M&A and Reasons for IJV), the findings from the case study (see Chapter 6 section 6.2.1. Table 6.2 – Strategies for Growth) are in accordance with previous studies that have noted the important reasons why organizations opt for strategic alliances such as M&A and IJV (Bastien, 1987; Schuler and Jackson, 2001; Schuler, 2001; Sirmon and Lane, 2004, Brendan, 1991). These strategic reasons at Organization ABC were in line with Schuler and Jackson (2001) and Schuler's (2001) reasons for M&A and IJV formation - administrative and technical advantage, growth for world class leadership and global reach, rapid market entry and to get more customers, to support internationalization strategies and gain competitive advantage. But the research findings (see chapter 6) also highlighted several organizational and individual challenges that organization ABC experienced in the process of M&A and IJV. It is important to understand that in the current state of globalization businesses are constantly looking to expand and venture into new markets, but it is also important to find better ways to manage and understand critical changes such as M&A and IJV to curb change failures (Clayton, 2010). Thietart and Forgues (1995) argue that similar strategies can never lead to same predictable outcomes when re-enacted in a life span of a single organization or between two organizations. Therefore, it is vital for organizations to understand their internal and external context and challenges before opting for

M&A and IJV. Therefore, the context here implies assessment of the readiness of both the legitimate and the shadow system and its interaction internally and externally can provide a better understanding to prepare for strategic alliances such as M&A and IJV.

The research findings agreed with Gemmill and Smith (1985), Leifer (1989) and Lichtenstein's (2000) argument that organizations are not equilibrium models which seek stability and limit change. Instead, organizations such as Organization ABC are always in a state of flux and transformation. Both Gemmill and Smith (1985) and Leifer (1989) claim that the process of transformation is continuous, i.e. "organizations move from transformation to transformation, with only brief periods of stability in between" (Porras and Silvers, 1991). A similar view of organizations being in state of flux and transformation is also proposed by Morgan (1997) with reference to autopoietic, chaos and complex systems. The journey of Organization ABC supports this view.

Moreover, Gemmill and Smith (1985) propose, "More applicable system models, recently emerging within the physical sciences, incorporate disorder, uncertainty, and complexity and provide insight into the process of transformation, its characteristics and dynamics" (pg. 751). Leifer (1989) also argues that current approaches based on equilibrium models are not adequate to describe complex organizational change and proposes viewing organizations as non-linear dynamic systems. Gemmill and Smith (1985), Leifer (1989) and Lichtenstein (2000) all propose the dissipative structure paradigm as an alternative perspective, as it embraces the non-equilibrium conditions that result in the emergence of new organizational order. Lichtenstein (2000) claims that non-linear dynamic systems models have been useful in understanding rapidly changing organizations. Proposing the "dissipative structures" approach (Prigogine and Stengers, 1984), Lichtenstein (2000) explains that dissipative systems require a continuous flow of energy, information and resources to generate flux, which induces pressure to change. Dissipative structures claim transformations in turbulent conditions, which are further maintained through amplifications and positive feedback processes; followed by recombination dynamics (i.e. self-organization), which breaks old forms of structures and behaviours and leads to emergence of novel outcomes (Gemmill and Smith, 1985; Leifer, 1989; Lichtenstein, 2000; Chiles *et al.*,

2004; Plowman *et al.*, 2007; Lichtenstein and Plowman, 2009). This pattern was found to be evident while analysing Organization ABC's journey through acquisition, merger and international joint venture (see Chapter 6 – Research Findings). Moreover, Chiles *et al.* (2004) argue that emergence is not only about creation but continuous recreation over time. Supporting Leifer's (1989) claim, Chiles *et al.* (2004, pg.500) assert that emergence and transformation are two sides of the same coin: "emergence is a transformative process, and transformation is an emergent process". Therefore, it can be argued that organizations are continuously transforming and qualitatively re-emerging throughout their life cycles. The outcome of the analysis supports this view as the recombination dynamics (i.e. re-aggregation of resources) were discussed in two parts (see Chapter 6 – sections 6.4 and 6.7 – Recombination dynamics). At Organization ABC, the recombination dynamics emerged at two points – 1) firstly, in the post-integration stage of M&A and IJV to cope with the immediate individual and organizational challenges; 2) secondly, in the current scenario (at the time of data collection) to cope with the current individual and organizational challenges.

Figure 7.1 below illustrates the M&A and IJV journey of Organization ABC from a complexity perspective. It illustrates the dissipative structure view of organizational changes such as M&A and IJV along with Morgan's (1997) view of incremental change based on new attractors. The diagram acknowledges the interaction between legitimate system (LS) and shadow system (SS) and the interdependency between various stages of organizational journey. Figure 7.1 also illustrates that organizations are always in a state of flux and transformation. Hence, challenges which act as positive feedback at one point in time offer a way for recombination dynamics, which demands individual and organizational level actions. This re-aggregation of resources to remedy the challenge at hand leads to a new emergent organizational configuration. However, the organization is maintained at the edge of chaos and does not fall in the chaotic region because of the anchoring provided by stabilizing/negative feedback. They are non-linear dynamic systems, always encountering and tackling internal and/or external challenges, demanding actions to be taken and resources to be rearranged or re-aggregated, leading to emergent outcomes. However, it needs to be noted that this emergence is not only of the legitimate but also of the shadow system at differential rates of re-aggregation of resources and change adaptation. Hence,

Complex systems will never be in the same situation twice, i.e. complex systems are irreversible. In the context of organizations, it is highly unlikely that the same strategies would produce the same results (Thietart and Forgues, 1995). This calls into question the fame and popularity of M&A and IJV. The concept of irreversibility of non-linear dynamic systems also explains why M&A and IJV prove to be successful change strategies for some but not for other organizations.

The review of the M&A and IJV literature (see Chapter 2) highlighted that even though strategic alliances such as M&A and IJV are initiated with positive aims, a lot of them still prove to be disappointing, with stakeholders' objectives not being met (Cornett-DeVito and Friedman, 1995; Bastein, 1987; Chun, 2009; Habeck *et al.*, 2000, Huiyuan and Xin, 2008; Schuler and Jackson, 2001; Agrawal and Jaffe, 2000; Todeva and Knoke, 2005; Brouthers and Bamossy, 2006; Sparks, 1999; Schuler *et al.*, 2004). The research findings brought forward both the emergent intended and unintended outcomes of M&A and IJV in the current scenario (see Chapter 6 section 6.5. – Emergent System-wide Outcomes and section 6.6.1 – Emergent Unintended Outcomes of M&A and IJV) supporting Agrawal and Jaffe's (2000) suggestion that acquiring firms enjoy positive short-term returns. Moreover, the on-going inherent challenges, interaction between LS and SS, and rate of development of LS and SS are highly specific to an organisation and dependent on organisational history. This helps understand why some M&A and IJV initiatives are perceived to be more successful than others across organizations or within the same organization if implemented several times. The sections below provide deeper discussion of the dissipative structure approach and complexity constructs, i.e. M&A and IJV as disequilibrium states, the LS and SS view of M&A and IJV; Role of Amplifying actions/Positive feedback dynamics; Recombination dynamics/Self organization; Emergent System-Wide Outcomes and Role of Stabilizing/Negative feedback.
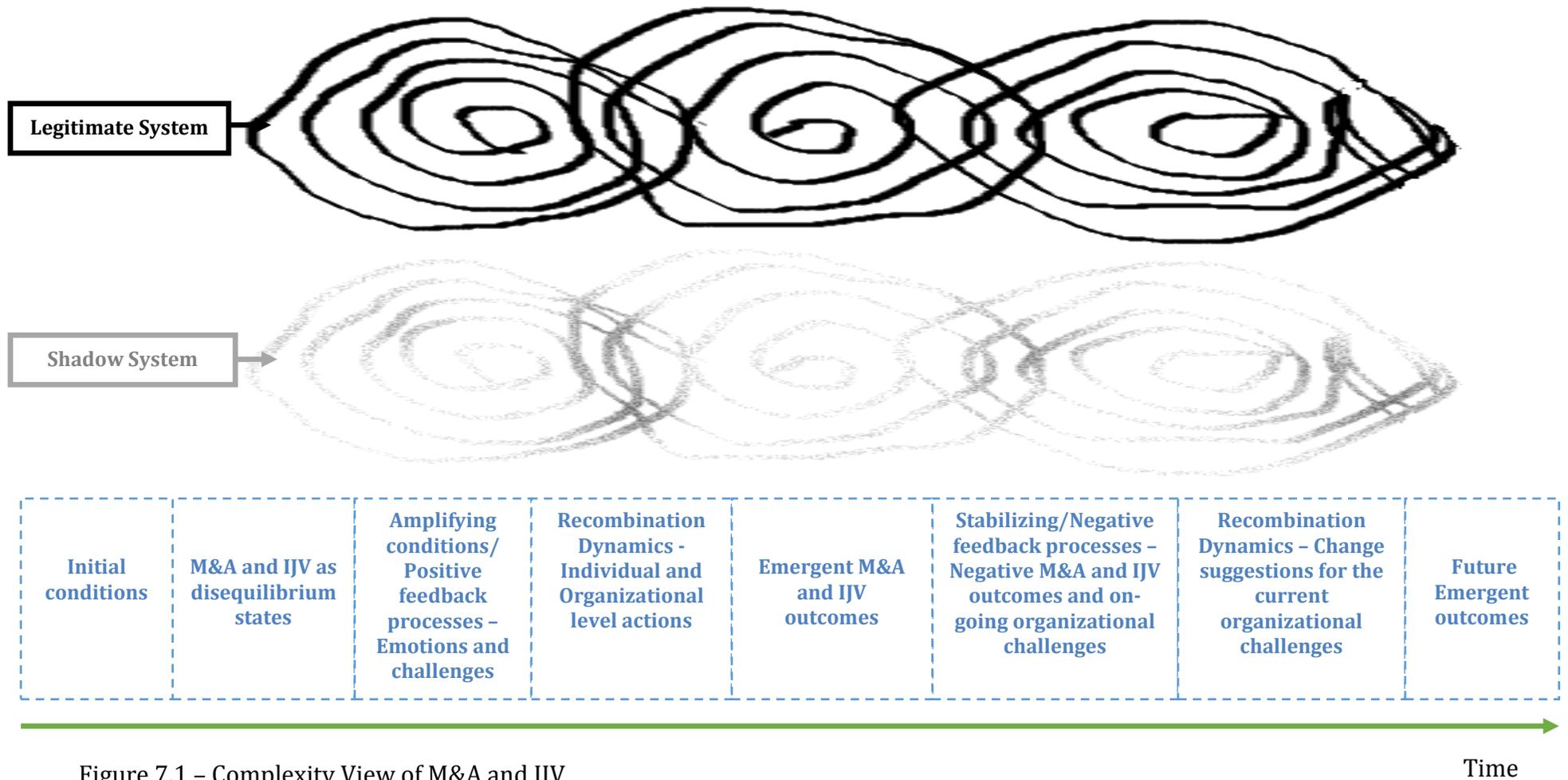
Figure 7.1 – Complexity View of M&A and IJV

7.3. M&A and IJV as Disequilibrium States

This research explored in depth the change management practices that were adopted in order to introduce M&A and IJV changes into the organization. One of the suggestions by Lichtenstein and Plowman (2009) for enacting leadership of emergence is to generate disequilibrium by disrupting the existing patterns. Strategic initiatives such as M&A and IJV are processes to disrupt the existing embedded patterns within organizations for new innovative patterns to emerge. These strategic initiatives push the organization "outside the norm" into a highly dynamic state (McKelvey, 2004a, 2004b). Prigogine and Stengers (1984) elaborated transformation of chemical systems when infused with high amount of energy into a far from thermodynamic equilibrium state. Energy, in the case of organization opting for M&A and IJV, is resources in terms of financial investments and people expertise. Lichtenstein and Plowman (2009) state disequilibrium can be provoked by elements within the system or external to the system such as opportunities, threats, crisis from the environment. The strategic alliance literature supports Lichtenstein and Plowman's (2009) claim by emphasizing that M&A and IJV are strategies used for competing in markets, entering new markets, and expansion opportunities and to help spread risks (Schuler and Jackson, 2001; Schuler, 2001; Bastien, 1987; Schuler and Jackson, 2001; Sirmon and Lane, 2004, Brendan, 1991).

The disequilibrium state is also called the "edge of chaos" (Osborn *et al.*, 2002), "region of complexity" (Maguire & McKelvey, 1999), far-from-equilibrium (Plowman *et al.*, 2007), increased organizing (Lichtenstein, 2000) and fluctuation dynamics (Chiles *et al.*, 2004). Even though labelled differently as far-from-equilibrium-state, fluctuation dynamics, and disequilibrium conditions and increased organizing; this process of disequilibrium state existed in all the following change and complexity studies – Plowman *et al.* (2007), Chiles *et al.* (2004), Houchin and MacLean (2005) and Lichtenstein (2000) respectively. Stacey (1995) asserts that disequilibrium (i.e. disorder) is a fundamental property of a complex system and plays a crucial role for creativity. It is in this state that the links and traceability between cause and effect disappear, where amplification dynamics enable escalation of tiny changes to have big effects and vice versa. M&A and IJV are fluctuations that create disequilibrium in organizations. These

fluctuations are intentional disequilibrium provoked by the management of the organization to fulfil various strategic goals and objectives. Armenakis and Harris (2009) label it as 'Discrepancy' between the current as-is state and the hoped for state perceived by the change agents. This gap leads to exercising these strategies to keep up with the external conditions. Organizations looking for expansions in new markets or planning to explore new knowledge and capabilities in the market choose formation of such strategic alliances (Schuler and Jackson, 2001; Schuler *et al.*, 2004). This eventually leads to expansion in terms of size, power and growth. The corporate control literature highlights that M&A serves as a vital external control tool for dismissing managers who fail to maximise shareholder profits (Dahya and Powell, 1998; Franks and Mayer, 1996; Appleyard, 1996; Kennedy and Limmack, 1996; Martin and McConnell, 1991; Jensen, 1986; Walsh, 1988). Martin and McConnell (1991) explain the twofold role of the market of corporate control. Firstly, the plausible acquirers monitor the performance of the senior executives. This threat of being taken over in turn minimizes non-value maximizing behaviour. Secondly, if the takeover does take place, then the plausible acquirer can correct non-value maximizing behaviour by replacing the perpetrators. Evidence from the case study also highlights that in the case of the acquisition of Organization PQR by Organization ABC, only a few acquired employees are with the organization in the current scenario. M&A and IJV literature and the evidence from the case highlight that these changes involve people, culture and communication-related challenges. Hence the very nature of these changes is complex enough to make any organization try to manage, predict and control each stage of implementation. For example, the findings suggested that Organization ABC used different strategic communication strategies (informal and formal) in each of the cases such as merger, acquisition and international joint venture at Organization ABC (see Chapter 6 section 6.2.3. –Strategic Communication) and different ways to handle both inherent M&A and IJV challenges and internal people challenges (see Chapter 6 section 6.4.1.2 – Management actions). The further deeper assessment of these changes also highlights the presence of a legitimate system (LS) and shadow system (SS) operating and coevolving in order to adapt to the inherent complexity posited by M&A and IJV. All this reflects the inherent complexity of these changes and the organization's attempt to deal with that complexity to get the most out of

the strategic initiative being taken. These attempts are further discussed in the following sections of this chapter.

7.4. Legitimate System and Shadow System view of M&A and IJV

The retrospective nature of the study was helpful in understanding the organization's evolution since its inception. The retrospective accounts also supported understanding of the reasons for the M&A and IJV strategic decisions (see Chapter 6 section 6.2.1 Table 6.2 - Strategies for Growth). Traditional organizational change research has mainly focused on change agents (Armenakis and Harris, 2009; Bartunek *et al.*, 2006). This is based on an assumption that change agents' and change recipients' understanding of the change is or ought to be the same (Bartunek *et al.*, 2006). The change management strategy at Organization ABC highlighted the presence of both LS and SS comprising change agents and change recipients respectively within the organizational system as a whole. Houchin and MacLean (2005, pg.151) define LS as "the formal rules and planning systems making up the legitimate organizational system govern day-to-day organizational behaviour". The LS comprises the "set of rules that governs how people in an organization jointly carry out the current primary tasks of their organization; in this sense it is the dominant schema" for survival of the organization (Stacey, 1996, pg. 25). On the other hand, Stacey (1996) highlights the presence of another system, which is the shadow of the LS, comprising informal links where agents develop their own rules of interaction. Houchin and MacLean (2005, pg.151) state that no one is in control in a SS but still patterns of control behaviour emerge, leading to organizational evolution.

LS and SS in organizations state how the two systems differ on lines of characteristics, purpose, rules of interaction and boundary (see Chapter 3 Table 3.3 - Legitimate System and Shadow System). However, Houchin and MacLean (2005) argue that the order emerges at the interface between the shadow and legitimate system. Evidence from the case supports the LS and SS view of organizations (Stacey, 1996; Houchin and MacLean, 2005; Delahaye, 2002, 2005; Halpin and Hanlon, 2008). The assessment of change management practices at Organization ABC has demonstrated existence of such LS and SS in Organization ABC at times of M&A and IJV. Delahaye (2005) also identified presence of both the

systems in their research case. It can be argued that change management practices during a complex phenomenon such as M&A and IJV comprise simultaneous operation and interaction between LS and SS of the organization. The outcome of M&A and IJV is an evolution of both LS and SS. However, it can be argued that these systems evolve at different pace based on the rate of change adaptation and re-aggregation of resources. Evidence for this from the case study is discussed in following subsections.

7.4.1. Change Awareness and Strategic Communication

The distinction between change awareness and strategic communication at times of important organizational changes such as M&A and IJV; emphasizes the presence of LS and SS within organizations. The research findings (see Chapter 6 section 6.2.2 – Change Awareness and section 6.2.3 – Strategic Communication) highlighted that there exists difference in awareness (see Chapter 6 section 6.2.2 - Change Awareness, Table 6.3 - Difference in Awareness and Table 6.4 - Informal Channels of M&A and IJV Awareness), communication (see Chapter 6 section 6.2.3 - Strategic Communication) and reaction toward the change (see Chapter 6 section 6.3.1 – Patterns of Emotions) between the LS and SS. Figure 7.2 below diagrammatically summarizes these differences.
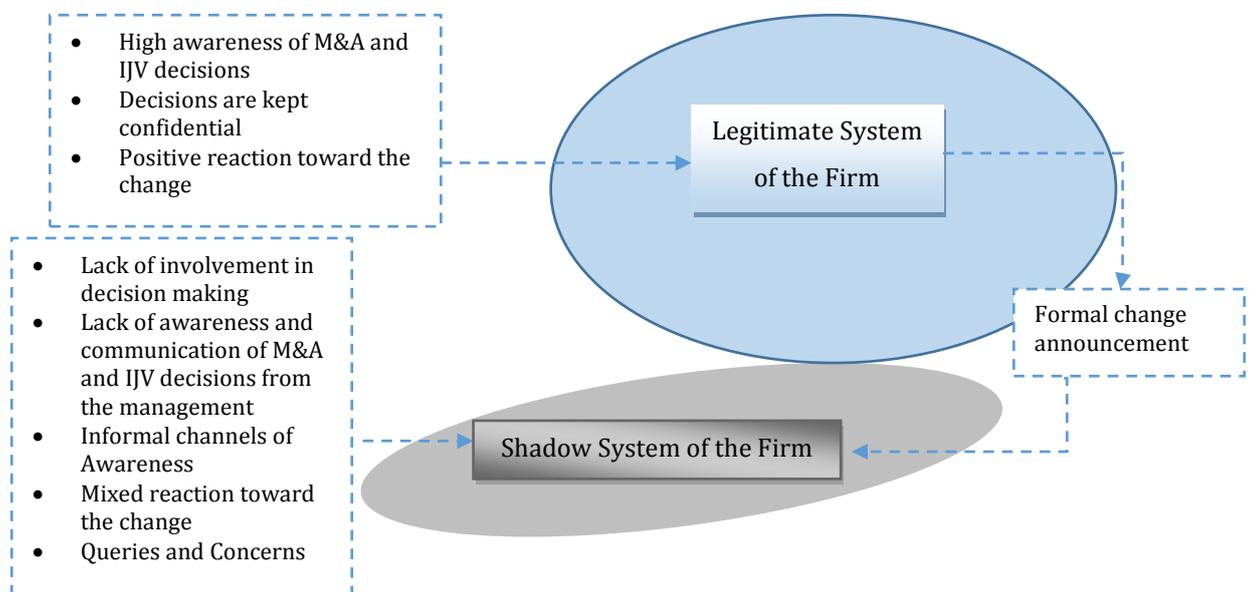
Figure 7.2 - Legitimate and Shadow System View of M&A and IJV Change Awareness and Strategic Communication

The LS of the organization is formally aware of strategic changes such as M&A and IJV when compared with the shadow system. The shadow system in context of this research comprised members of the organization excluding the top management team and general managers. The LS mainly attempts to maintain confidentiality and secrecy at times of critical organizational change. The changes are only planned and announced formally to the SS after the deal is finalized. In spite of SS being less involved in decision making and ideally made aware of these decisions only through formal announcement from LS which often comes later; agents in the SS are already aware of these changes through informal channels of awareness internal or external to the organization's LS (see Chapter 6 section 6.2.2 – Change Awareness, Table 6.4 - Informal Channels of M&A and IJV Awareness). This highlights not only the internal interactions between the agents in the SS but also the interactions which span outside the organizational system.

In spite of repeated claims of the importance of communication during M&A and IJV during the past 40 years, still the evidence from the case highlighted a very loose unplanned approach toward communication with employees. The surprising part is that many managers were aware of the SS being informally aware of the change news, yet still opted for silence and secrecy to keep things confidential until what they considered the right time. The evidence from the case highlighted a planned formal communication only in the case of IJV and not in the case of the acquisition and merger. There did not exist any formal query resolution channels within the organization. However, the informal culture of getting queries resolved from immediate seniors helped employees at times of crisis. This is in accordance with Deloitte & Touche's study (2002), which also highlighted lack of communication and people being ignored as some of the reasons for M&A failure (Mitleton-Kelly, 2006). Armenakis and Harris (2009) support the role of communication in creating the readiness for change. They claim with the recent advances in technology and with the help of human resource practices, change agents can create a supportive change climate. Schweiger and DeNisi (1991) and Ivancevich *et al*. (1987) both acknowledge the strategic reasons for keeping M&A and IJV confidential but also recommend communicating with employees on matters which are of interest to them, such as employee pensions, work regulations and rules etc. The evidence from the case highlighted how most (78% of IJV general managers and 60% of IJV employees) of the participants mentioned

a formal IJV announcement party and the further positive IJV emotions (see Chapter 6 section 6.3.1.1 – Positive Emotions) in their retrospective accounts. This supports Schuler and Jackson (2001), Balle (2008), Bastein (1987), Wagner and Hilal (2014), Schweiger and DeNisi (1991) and Marks' (1982) claim about role of communication in managing uncertainty and motivating employees. However, the co-existence of negative emotions along with positive emotions during the M&A and IJV from the research findings (see Chapter 6 section 6.3.1 – Patterns of Emotions), calls into question the long term influence and impact of such forms of communication on the employees. This brings us back to the argument proposed by Cornett-DeVito and Friedman (1995) that communication is not some sort of one-off tool used to remedy a particular contingency. They further emphasize that communication needs evolve over time and the relationship between change success and communication is complex.

7.4.2. M&A and IJV Challenges and Actions Taken

Figure 7.3 below illustrates the findings in summary that support LS and SS distinction within the organization at times of M&A and IJV. The assessment of challenges and actions taken at Organization ABC highlighted not only the operation but also the interaction between the LS and SS (see Figure 7.3). The findings aid the understanding of how agents in the LS and SS manage the complex challenges posited by M&A and IJV and then take action to manage these organizational and individual level change challenges respectively.

- Strategic reasons to opt for M&A and IJV
- Experiences organizational level M&A and IJV challenges – People, Product and Location
- Organizational level actions for organizational level challenges such as Product and location.

- Individual level challenges – Mixed emotions, queries and concerns
- Individual level actions – Learning and expectations.

Legitimate System of the Organization

Shadow System of the Organization

- Aware of employees' queries and concerns.
- Handles employees' queries and

Figure 7.3 - Legitimate and Shadow System View of M&A and IJV Challenges and Actions Taken

Stacey (1996) states the primary task of LS are organizational survival; therefore, strategic decisions such as M&A and IJV are part of this process to compete in the global economy for competitive advantage. The LS provided many reasons for M&A and IJV decisions (see Chapter 6 section 6.2.1 – Strategies for Growth). However, these changes come with inherent organizational-level and individual-level challenges (see Chapter 6 section 6.3.2 – Individual and Organizational-level Challenges) which require organizational and individual level actions (see Chapter 6 section 6.4.1 – Individual and Organizational-level Actions). The LS of the organization experiences and takes actions to manage organizational level challenges such as people, product and location (see Chapter 6 section 6.3.2.2 – Organizational-level challenges) whilst the SS of the organization experiences individual level challenges such as mixed emotions (see Chapter 6 section 6.3.1 – Patterns of Emotions) and queries and concerns (see Chapter 6 section 6.3.2.1 – Individual-level challenges). Evidence from the case highlighted that the SS attempts to manage these challenges by adopting informal channels of awareness for uncertainty reduction (see Chapter 6 section 6.2.2. Table 6.4 - Informal Channels of M&A and IJV Awareness) and by taking learning initiatives for change adaptation (see Chapter 6 section 6.4.1.1 – Individual-level Actions). However, the LS take action to resolve organizational level challenges (see Chapter 6 section 6.4.1.2 – Management actions) such as product or process reengineering or location and infrastructure development. The interaction between the LS and SS occurs when management takes actions to resolve individual level challenges by providing support for planned and self-initiated learning (see Chapter 6 section 6.4.1.2, Table 6.17 - Management Actions - Individual level Challenges). Therefore, the evidence from the case illustrates not only the presence of LS and SS but also the interaction between the two. However, these interactions within and across these systems are governed by feedback processes which help the evolution of the organization during M&A and IJV. These feedback processes are discussed in the next section.

7.5.   Role of Amplifying Action/Positive Feedback Dynamics

Houchin and MacLean (2005) claim that complex systems comprising LS and SS are driven by positive and negative feedback processes that exist in the organizational system. They argue that the LS comprising formal rules uses

negative feedback processes that help the organization to carry out its day-to-day activities and push it toward equilibrium. On the other hand, the positive feedback processes function in the SS and push the system away from the intended desired state. These feedback processes get amplified and/or dissipate through the system resulting in non-linearity, which results in unpredictable and disproportionate emergent system-wide outcomes (Houchin and MacLean, 2005). However, it is important to note that any LS can also use positive feedback processes; likewise, any SS can also use negative feedback processes. Therefore, such strict dichotomies are not always possible and LS and SS can overlap.

The role of amplifying actions/positive feedback loops existed in all these; Plowman *et al.* (2007) referred to it as amplifying actions, Chiles *et al.* (2004) called it positive feedback dynamics, Houchin and MacLean (2005) referred to it as feedback processes working towards achieving the desired new state and Lichtenstein (2000) called it tension and a threshold of change. In the context of M&A and IJV, it is the positive feedback process which maintains and sustains the initial disequilibrium state created by M&A and IJV for eventual emergent order creation. Smith and Gemmill (1991, pg. 711) state that positive feedback processes amplify the fluctuations in the initial phases and help the new order "take hold and gain momentum". Chiles *et al.* (2004) claim that positive (or self-reinforcing) feedback loops facilitates the movement toward the new order. In the context of social systems, this amplifying positive feedback process could take the form of rumours that move the organization away from the desired state (Plowman *et al.*, 2007). It is in this disequilibrium state of the system that small fluctuations can have big effects in parts of the systems or vice versa (Holland, 1975; Kauffman, 1993; Plowman *et al.*, 2007; Anderson *et al.,* 2005). The findings from the research case highlight the operation of positive feedback processes in the M&A and IJV organization. However, Lichtenstein and Plowman (2009) emphasize that it is the negative dampening feedback process discussed in subsequent sections (see section 7.8 – Role of Stabilizing/Negative Feedback) that controls the emergent change, prevents from spinning beyond control. Houchin and MacLean (2005) refer to negative feedback as anxiety reducing mechanisms which aim to reduce the connectivity between elements, in contrast to Plowman *et al.'s* (2007) assertion that a social system under stress increases the interdependency between agents of the system, which aids amplifications of small fluctuations. It is the tension

between these two feedback processes that aids new insights in understanding the M&A and IJV change phenomena. Plowman *et al.* (2007) argue that even though negative feedback helps in anchoring the system but both positive and negative feedbacks operate at each level of emergence. Hence, they claim, in this region of bounded instability, organizations are driven simultaneously by both positive/amplifying and negative/stabilizing feedback processes. The patterns of emotions during M&A and IJV (see Chapter 6 section 6.3.1) and the inherent individual and organizational level challenges (see Chapter 6 section 6.3.2) prompt deviation amplification (positive feedback loops) through the organizational system and provide energy for the initial disequilibrium state. Armenakis and Harris (2009) claim that the most important reaction by the change recipient is "emotion" and it is the responsibility of the change agents to sell the merits of the change efforts to change recipients. They state that change efforts are change agents' initiatives to remediate a 'discrepancy' highlighted by the current state of the organization and its hoped-for state. However, for psychological embracing of the change, change recipients should also agree with the discrepancy and the appropriateness of the change effort. The diagrams below illustrate some exemplary positive feedback loops identified in the patterns of the emotions organizing theme.

A) Informal awareness loop in the Shadow System

B) Positive Emotion – Learning – Expectation loop in the Shadow System
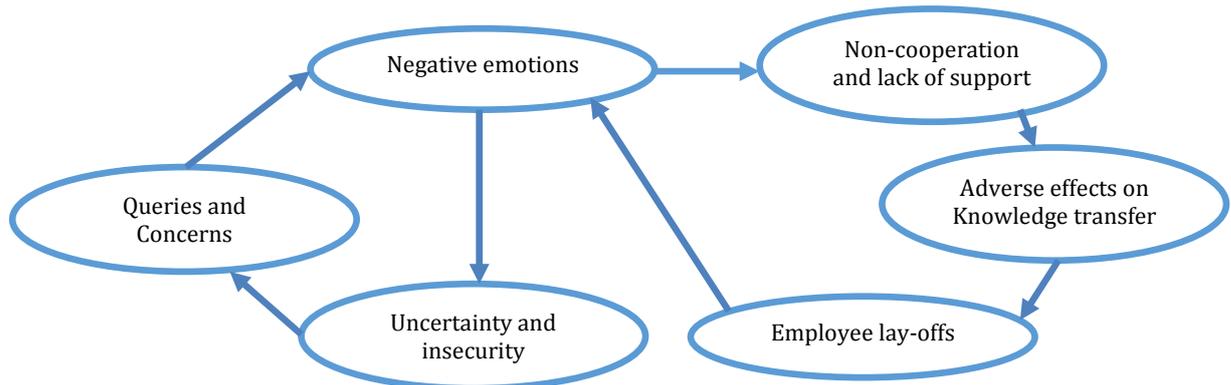
C) Negative Emotion – Queries and Concerns – Uncertainty and insecurity loop in the Shadow System

The positive emotions can be amplified through the M&A system and create increased change adaptation, whilst negative emotions can hamper the same. The findings from the case (diagram B) suggest that the positive emotions from the IJV with a foreign company coexisted with increased expectations amongst employees in terms of salary; promotions etc. (see Chapter 6 section 6.3.1.1 – Positive Emotions). At the same time, these positive emotions coexisted with learning initiatives but it increased employees' expectations from the organization (see Chapter 6 section 6.6.1.2 Table 6.28 - Individual level - Emergent negative outcomes of IJV – 'Learning initiatives versus Unmet Expectations'). Negative emotions elaborated (diagram A and C) during acquisition and IJV (see Chapter 6 section 6.3.1.2 – Negative Emotions) highlight that insecurity, breach of implicit psychological contract with the organization, with emotions such as feeling betrayed, harassed and sad, emphasize uncertainty and generate increased amounts of queries and concerns. These deviation amplifications are further increased by lack of awareness and involvement in decision making and LS secrecy and confidentiality around M&A and IJV decisions (see Chapter 6 section 6.2.2 –

Change Awareness) and use of defensive mechanisms leading to ineffective query resolution (see Chapter 6 section 6.4.1.2, Table 6.16 - Defensive Mechanisms). All this effectively leads to SS reliance on informal channels of awareness for uncertainty reduction (see Chapter 6 section 6.2.2, Table 6.4 - Informal Channels of M&A and IJV Awareness). This findings support Plowman *et al.*'s (2007) claim about the high level of agent interdependency in social systems under stress, which provides energy for these small conditions to have big effects through a highly interconnected system.

The individual level generates positive feedback loops highlighting the people challenges as shown above. Similar positive feedback loops were also found at the organizational level, illustrating the challenges posited by M&A and IJV and actions taken to remediate the challenges. The organization not only deals with people challenges such as non-cooperation; and queries and concerns from employees; it also deals with other challenges such as location and product-related (see Chapter 6 section 6.3.2.2 – Organizational-level Challenges). However, in the process of adaptation, the organization plans to handle these challenges with appropriate actions which are discussed in the next section – Recombination dynamics/self-organization.

Moreover, patterns of emotions are a heavily researched topic under the people issues domain of M&A and the existence of positive and negative emotions in M&A support the extant literature on people issues on M&A. However, this area is scarcely researched for IJV. This research highlighted that pattern of emotions persisted in all of the three forms of strategic alliances – M&A and IJV. In the case of Organization ABC, acquisition and IJV both highlighted negative emotions.

7.6.   Recombination Dynamics/ Self-organization

Houchin and MacLean (2005) state that self-organization is a natural outcome of non-linear interactions at work in a complex system and are driven by positive and negative feedback processes. They claim this is not something that is sought or preferred by individual agents. In fact they argue that disequilibrium is a form of anxiety and the main aim of organization is stability. Hence, even though organizations can self-organize, the outcome of their research revealed organizations are complex social systems and choose equilibrium over novelty. Houchin and MacLean (2005) claim that it is the shadow system that reduces

anxiety by producing patterns of stability such as repetition of behaviours common to initial conditions and drives the complex system back to the previous equilibrium state. However, it can be argued that legitimate system also produces stability pattern for anxiety reduction. They assert that in complex social systems, hierarchy and anxiety reducing actions are the natural outcomes of self-organizing. In the context of this research, Lichtenstein and Plowman's (2009) claim is proposed, which states that on the other side of the threshold, the new order of the system comes into being through recombination/re-aggregation of resources. They state that the point of critical threshold the system reaches its maximum capacity and it either collapses or re-organizes. Although referred to differently as emergent self-organization, recombination dynamics, order emerging at the boundary of legitimate and shadow system and emergence of a new configuration; each of the studies by Plowman *et al.* (2007), Chiles *et al*. (2004), Houchin and MacLean (2005) and Lichtenstein (2000) highlighted this complexity theory construct.

Although it has been stated in section 3.3.1 that self-organization is a neutral term and it can be either positive or negative, M&A and IJV in the case of Organization ABC demonstrated constructive reorganization of resources at both macro and micro levels. Empirical work by Plowman *et al*. (2007), Lichtenstein (2000) and Chiles *et al.* (2004) refers to this reorganization of resources as emergent self-organization, emergence of a new configuration and recombination dynamics respectively. In context of this research case study, Chiles *et al.* (2004, pg.502) claim that in order "to generate new elements, the system's existing elements must be reused, rearranged, reconstructed, re-leveraged, and re-created through a key dynamic known as recombination" was applicable. Anderson (1999) emphasizes the importance of recombination for self-organization and evolution. The findings from the case study highlighted recombination dynamics at two stages: 1) firstly, in the post-integration stage of M&A and IJV to cope with the individual and organizational challenges; 2) secondly, in the current scenario (at the time of data collection) to cope with the current individual and organizational challenges (see Chapter 6 section 6.7 and section 6.8). Table 7.1 and Table 7.2 below highlight the consecutive actions taken to handle M&A and IJV challenges in the post-integration stage at Organization ABC.

Management Actions for People Challenges		
	People Challenges	**Management Actions**
Acquisition Actions	Acquired workers – Job-related Uncertainty	Few acquired workers were recruited and provided travelling assurance
	Acquired workers –Travelling concern to a new location	
	Acquired workers attitudes and non-cooperation	Employee lay-off after six months of acquisition
Merger Actions	Workers' Provident Fund Query	Human Resource managers handled Workers' Provident Fund Query after Merger
	Sales Team increased number of products query	New job roles were introduced to help the sales team with the increased product basket after Merger
IJV Actions	Employees' Queries and Concerns	Queries were resolved only with time and communication

Table 7.1 - Management Actions for People Challenges

Management Actions for Organizational-level Challenges		
Change	**Organizational level challenges**	**Management Actions**
Acquisition	Product drawings unavailable; Product design in acquired employees' memory; no systematic departments.	Product drawings and renovation; outsourcing to vendors; systematic departments
	Location, infrastructure and facilities issues	Change of location; shift to a new premises
Merger	Constant shifting challenges	Change of location; shift to a new premises
IJV	Quality-related challenges	Process improvements; shop floor layout change; product flow changes; Infrastructure development; new machines

Table 7.2 - Management Actions for Organizational-level Challenges

Armenakis and Harris (2009, pg.135) claim that "the schemata that change recipients have of their leaders are shaped by the actions and words of those leaders, including strategies for change they employ." Management actions in Tables 7.1 and 7.2 have clearly demonstrated recombination of resources after the initial disequilibrium state created by M&A and IJV. Management actions have highlighted attempts to handle both people-related and organization-related challenges such as product, processes and location. This emphasizes the multidimensional role of LS at times of M&A and IJV and its interaction with SS to handle people-related challenges. However, at the SS level, Chiles *et al.* (2004) and MacLean and Macintosh (1999) emphasize the importance of self-referencing frameworks embedded in the deep structures of the organizations. Deep structures serve as self-referencing frameworks within dissipative self-organizing processes (Chiles *et al.*, 2004). These deep structures direct the process of emergence from the history and learning of the system, preserving its identity and

core behaviour (Chiles *et al.*, 2004). Not all IJV queries and concerns were handled by the management and the data highlighted defensive mechanisms in relation to query resolution (see Chapter 6 section 6.4.1.2, Table 6.16 – Defensive Mechanisms). However, the findings highlighted the presence of 'informal culture of query resolution' (see Chapter 6 section 6.4.1.2, Table 6.18 and Table 6.19 - Informal Query Resolution Culture) and 'willingness to learn' amongst employees (see Chapter 6 section 6.4.1.1. Table 6.14 – Willingness to Learn). Employees and managers took pride in the organization's journey from being a small domestic firm to being an international player (see Chapter 6 section 6.3.1.1. Table 6.5 – Positive Emotions), which further boosted positive emotions and learning. These were the self-referencing frameworks for Organization ABC, which helped the process of change adaptation and re-aggregation of resources. Moreover, the research analysis also highlighted that this process of recombination is continuous. Armenakis and Harris (2009) highly recommend the involvement and participation of change recipients in the change process. They claim that "change recipient participation in organizational change is a fundamental aspect of change efforts when we are advising organizations and also central to our research focus on how to increase the likelihood of sustainable change" (pg.130). In their work, they encourage organizational members to participate in communication of the gaps to address discrepancy and appropriateness of change. The second recombination dynamics in the context of this research surfaced when the interview participants were asked about the key changes that they would like to see in the current scenario of M&A and IJV. Participants actively responded to this question and the analysis of the recommendations provided was fed back to the management of the organization (see Chapter 6 section 6.7 and section 6.8).

7.7. Emergent System-wide Outcomes of M&A and IJV

Lichtenstein and Plowman (2009) state emergence as a system outcome which is characterized by creation of a new entity with qualities that are not reflected in the interactions of each agent within the system. They attribute this to the recombination dynamics which expands the system ecology for the agents. Therefore, the emergent outcome qualitatively has more or new system properties than before. The findings from the case highlighted these emergent outcomes in both the LS and SS after M&A and IJV (see Chapter 6 section 6.5 – Emergent

System-wide Outcomes). These outcomes highlight the new characteristics of the organizational system (i.e. Organization ABC). The recombination dynamics employed in all the three changes – merger, acquisition and IJV at Organization ABC have "expanded the pie in a real way for all the agents in the ecology" (Lichtenstein and Plowman, 2009, pg.620). Lichtenstein (2000) and Lichtenstein and Plowman (2009) assert emergence of a new configuration as an outcome of 'increased organizing' as part of the disequilibrium state followed by tension and threshold of change characterized by amplifying actions leading to emergence of a new configuration as an outcome of recombination dynamics/self-organization. The following table highlights the emergent system-wide outcomes in the LS and SS after M&A and IJV (see Chapter 6 section 6.5. Tables 6.20, 6.21, 6.22 and 6.23 for details) –

Emergent System-wide outcomes - Legitimate system	
M&A	IJV
- Increase in Infrastructure and Size of the organization after the merger - Product Reengineering - Expansion of the product range after M&A - One stop solution provider after Merger and Two fold advantage of the merger - Improvement in Customer focus after merger - Better workforce utilization after merger - Talent acquisition	- Positive effect on organizational growth and development – Increase in manpower and productivity, improved market reach, improved technology - Product improvement in terms of quality and brand value - Effect on Customer orientation and perspective
Emergent System-wide outcomes - Shadow System	
M&A	IJV
- Improved Infrastructures and facilities for M&A employees - Improved work culture and work practices after acquisition - Broadened work spectrum after merger - Increase in face to face communication with colleagues after merger - Increase of HR focus on workers after merger	- Positive effect on the work culture and practices - Positive effect on individual development - Positive effect on employee mind set - Improvement in management perception - Positive effect on growth opportunities

Table 7.3 - Emergent System-wide Outcomes

The new emergent M&A and IJV outcome in the LS and SS as seen in the above table differentiates the characteristic of the current system from those of the past. The new system has renewed system characteristics and is qualitatively an improved system. This empirical evidence supports the claims that M&As

rejuvenate organizations (Budhwar *et al.*, 2009) and IJV can provide opportunities for gaining competitive advantage and provides international experience (Beamish and Lupton, 2009). Lichtenstein's (2000) research with business organizations undergoing change also highlighted the emergence of a new configuration as an outcome of chaos and turbulence. The emergent organization in Lichtenstein's (2000) research comprised a reconceived mission, renewed activity domains, new organizational design, new strategy, new roles and new controls. A similar new emergent order was also evident in case of rejuvenation of Mission church (Plowman *et al.*, 2007) and success of Branson, MO (Chiles *et al.*, 2004). "Complexity theories assert that companies continuously regenerate themselves through adaptive learning and interactive structural change. These efforts periodically result in the spontaneous emergence of a whole new dynamic order" (Lichtenstein, 2000, pg. 131). The whole new order in the case of Organization ABC as an outcome of M&A and IJV qualitatively improved the organization. Stacey (1995) emphasizes that for creativity, innovation and continually changing behaviour, the system must operate in the far from equilibrium state with interaction between positive and negative feedback processes.

7.8. Role of Stabilizing/Negative Feedback

Chiles *et al.* (2004) highlight these negative stabilizing dynamics as kind of natural regulation process that plays an important role in moving the system into the new order. Stacey (1995) describes negative feedback loops as movement back to the predictable, stable regular behaviour. Lichtenstein and Plowman (2009, pg. 620) state that if the new emergent order is creating value then it will stabilize itself in short order by finding parameters that "best increase its overall sustainability in the ecology". They claim that stabilizing/negative feedback anchors the change by slowing down the non-linear process that led to the amplification of emergence in the first place, i.e. in this case M&A and IJV. Chiles *et al.* (2004) refer to this construct as 'stabilization dynamics' stating that it plays an important role in moving the system into the new configuration. They argue that "the stabilization these mechanisms provide is not stabilization equilibrium, but rather a kind of natural regulation process that balances the dynamics of positive feedback" (pg.502). In the case of Mission church (Plowman *et al.*, 2007) and Branson theatre (Chiles *et al.*, 2004), both changes experienced stabilizing/negative

feedback to anchor the emergent phenomenon (Lichtenstein and Plowman, 2009). Research findings from the case studied for this thesis highlighted that the positive amplifications during M&A and IJV are regulated and anchored by negative outcomes of M&A and IJV (see Chapter 6 section 6.6.1) and the on-going internal organizational challenges (see Chapter 6 section 6.6.2.). These acted as feedback processes that are acting against achieving the desired state. Unintended outcomes of the change highlight the outcomes of the actions taken during M&A and IJV that act as negative/stabilizing feedback. Armenakis and Harris (2009) argue that change efforts are planned and implemented alongside the day-to-day business activities to meet business demands. Therefore, the on-going internal challenges pull the positive amplification during M&A and IJV and anchor the change phenomena in the organization. Evidence from the case highlighted on-going people, communication and culture-related challenges along with many product and process-related challenges at Organization ABC (see Chapter 6 section 6.6.2.). These on-going challenges slow the pace and limit the amplitude of critical organizational changes. Armenakis and Harris (2009) believe that internal organizational context can influence success of an organizational change effort. Johns (2001) argues that even a well-executed change would fail in the presence of an unfavourable internal organizational context. It is these internal stabilizing/negative feedback loop that limit the gain an organization can attain from strategies such as M&A and IJV within the organizational context characterized by conditions such as strategic thinking behind M&A and IJV, on-going internal challenges at the time of M&A and IJV, challenges posited by M&A and IJV process, actions taken during M&A and IJV, patterns of interaction between LS and SS and the role of positive and negative feedback loops. Table 7.4 and Table 7.5 highlights the unintended outcomes in the LS and SS after M&A and IJV (see Chapter 6 section 6.6, Tables 6.24, 6.25, 6.26, 6.27 and 6.28 for details) –

Unintended Outcomes - Legitimate System		
Acquisition	**Merger**	**IJV**
• Problems with acquired owner • Skill dependency • Not a matured business division • Higher Cost of overall Acquisition	• Gradual Shift of focus toward Manufacturing division • Skill dependency • Cross Divisional Roles not rendered	• On time delivery issues • Quality and Rejections issues • Managing Paradox between quality and output • Number 1 position is very shaky

Table 7.4 – Unintended Outcomes in Legitimate System

Unintended Outcomes - Shadow System	
M&A	IJV
People issues *Lack of approachability to seniors after M&A* *Acquired workers are less confident* *Acquired workers compare owners* *Interpersonal issues after merger* *Proving someone else's dreams* *Performance management in a larger organization after M&A* Cultural issues *Lack of emphasis and sense of belonging after merger* *Three distinct cultures in the organization after merger* Work practices-related issues *No improvement in ways of working after M&A* *End of line suffers after M&A* *Training and development issues* Email communication issues	People Issues *Learning initiatives Vs. Unmet expectations* *"10 micron error" mind-set* Cultural issues *Indian Vs. American partner organizational culture* *Indian Vs. International customer challenges* *'Happy' (export managers) Vs. 'Unhappy' (domestic managers) managers in the IJV Firm* *Comparison of stress with American culture* Communication Issues *New email culture Vs. Personnel interaction* *Limited communication access with American partner Vs. Belief about direct communication access*

Table 7.5 – Unintended Outcomes in Shadow System

There exist both emergent intended and unintended outcomes of these strategic changes (Balogun and Johnson, 2005; Balogun, 2006). It is the emergent unintended outcomes of M&A and IJV in the LS and SS as seen in the above table that anchor the amplification provided by these changes along with on-going internal organizational challenges.

7.9. Conclusion

In summary, this research has linked the empirical research findings with the extant literature to address research objective RO6 (see Chapter 3 section 3.5 Table 3.2 - Theoretical Constructs from Studies of Emergence). It has shown that complexity theories such as dissipative structures and CAS provide rich insights in understanding non-linearity, complexity and unpredictability of organizational change processes such as M&A and IJV. The use of complexity theory highlighted that these complex changes do not follow a linear pattern as proposed by many M&A and IJV planning programmes. Styhre's (2002, pg.343) research findings also suggested that organizational changes are not linear but "disruptive, discontinuous, fluid and fluxing". Hence, organizational change is not a stepwise planned implementation of a strategic idea but a vision guided continuous process that constantly adapts to the emergent external and internal conditions (Styhre,

2002). Moreover, the concept of irreversibility of complex systems helped understand the high failure rate of organizational changes in general and M&A and IJV in particular. Thietart and Forgues (1995, pg.27) claim that "chaotic system will never find itself twice in a same situation" challenges approaches based on adoption of M&A and IJV best practices. They state that the non-contextualized acceptance of successful practices can only lead to deception. This questions the generalised assumptions and claims about M&A and IJV being good strategies for all organizations.

The LS and SS view of organizations adds to the M&A and IJV literature as it explains how two different systems co-exist and evolve at a different pace, have different primary tasks to fulfil during M&A and IJV and have different roles and expectations during major transformations. The interaction between the LS and SS and the co-existence of positive and negative feedback processes explain the complexity and non-linear and unpredictable nature of M&A and IJV. Delahaye (2005) emphasizes that organizations should focus on managing LS, SS and the interaction between the two systems in order to achieve a state of bounded instability. Halpin and Hanlon (2008) state that LS and SS have equal effect on each other and are intertwined as part of one complex system. In context of M&A and IJV, the lack of understanding of the shadow system within the organization can lead to failure of M&A and IJV change initiatives. These failures can be attributed to leaders' lack of clear understanding of the system and of the related self-organized patterns that are causing obstacles for these initiatives (Buckle-Henning, 2008).

The stabilizing feedback/negative feedback explains how only so much could be extracted from the change initiatives and why in spite of all the complexity, non-linearity and positive amplifications dynamics, the new form of organization emerged instead of the organization falling beyond the edge of chaos and turning into chaotic systems with no patterns or creativity. The complex system understanding of M&A and IJV not only helps understand the negatives such as high failure rate and challenges in their management; it also explain the positive aspects such as the success of such changes. M&A and IJV strategic initiatives are part of organizations' state of flux and transformation. These initiatives help organizations to renovate, rejuvenate, be creative and innovate. The new emergent state of the system is not equal to and is qualitatively more than the sum of its

parts. The new characteristics gained and lessons learnt in the M&A and IJV process by the organizational system as a whole, along with its agents, make the organizations and its agents more robust, add to their learning schema and make them more adaptable to their respective environments.

8. Conclusion: Contributions, Reflections, Limitations and Future Work

8.1. Introduction

This chapter concludes the thesis and provides an opportunity to review the thesis as a whole and the contribution made through the research undertaken. The thesis began with a problem identification (see Chapter 1) which led to an in-depth review of M&A and IJV literature (see Chapter 2). With an endeavour to find an alternative lens to understand M&A and IJV, this research took help from complexity theories by conducting a review of complexity management literature (see Chapter 3). In order to move from theory to practice, the research bridged the gap by understanding the philosophical underpinnings of applying complexity theories to study organizations (see Chapter 3 section 3.6). After discussing the research's critical pluralist philosophy, the research methodology was provided drawing parallels between methodological pluralism, complexity thinking and case study research strategy (see Chapter 4). The next part of the thesis brought the thesis from theory to practice. It elaborated the case study organization with the details of research design, data collection and analysis (see Chapter 5). The research findings from the practical work were provided in the following chapter (see Chapter 6). Closing the loop, the research discussion chapter (see Chapter 7) took the research project back into the theory by connecting the case study results to M&A, IJV and complexity management literature.

This chapter brings closure to the entire project and gives a space for reflection. In order to approach research objective RO7 (see Chapter 3 section 3.5), it summarises and demonstrates how a contribution to knowledge has been made through answering the overall research questions and fulfilling its objectives. It illustrates theoretical and methodological contributions made by this research project. It provides a critical discussion on the managerial implications of this research and of the complexity approach in general. Also, critical reflection is made on the role of the complexity researcher. A critical discussion focuses on limitations of this research in light of the limitations of complexity approach, limitations of case study research approach and limitations of data collection and analysis. These research limitations gave way to the future directions of this research.

8.2.   Achievements of the Overall Research Questions

The primary aim of this research was to use a complexity lens to understand M&A and IJV. This primary aim was supported by research questions and objectives (see Chapter 3 section 3.5). Table 8.1 below provides an overview of the entire research process and aims to illustrate that the objectives of the research have been met and the research questions have been answered. In Table 8.1, the entire research journey is elaborated, showing the aim of the respective research process step, research questions and objectives relevant to each step, how the step was approached, followed by the main results of each step. This reflective map helps the researcher to illustrate the research contributions, reflect on the research process, highlight the research limitations and guide the way forward for future research work. These aspects are discussed in the further sections of this chapter.

Chapters	Aim of the research process step	Research process step	Development of Research questions (RQ) and objectives (RO)	Illustration	Main results
Chapter 1	Problem Identification: Global increase in demand for M&A and IJV versus High failure rate of M&A and IJV				Need identified to conduct in-depth review of M&A and IJV literature.
Chapter 2	Refinement of real life observation	M&A and IJV literature review	*RO1 - To conduct in-depth review of M&A and IJV literature to explore challenges in M&A and IJV management and to identify gaps in the literature.*	Use of secondary sources such as journal articles and books for M&A and IJV literature review (Chapter 2).	-High change failure acknowledged by M&A and IJV literature. -Identification of M&A and IJV management challenges from the review of the literature. -People and culture-related challenges identified as the neglected areas in the literature where contribution to knowledge can be made. -The overall traditional M&A and IJV research has focused on simple relationships between universally important variables such as communication or culture or people and success and has provided simple linear solutions such as communication. -Need for an alternative (complexity) lens that can embrace the inherent complexities of M&A and IJV. -Need identified to conduct in-depth review of complexity management literature.

Table 8.1 – Process Steps in the Research Journey

	Aim of the research process step	Research process step	Development of Research questions (RQ) and objectives (RO)	Illustration	Main results
Chapter 3	Review of complexity management literature with main focus on organizational changes such as M&A and IJV.	Complexity Management literature review	**Primary research question and objectives** RQ1 - What insights can be gained from employing a complexity lens to understand M&A and IJV? *RO2 - To use complexity theories in order to understand patterns of major transformations such as M&A and IJV.* *RO3 - To use complexity theories in order to understand the emergent outcomes of major transformations such as M&A and IJV.*	Use of secondary sources such as journal articles and books for complexity management literature review.	-Critical review of various complexity theories. -Assessment of relevance of complexity theories to understand M&A and IJV. -Identification of relevant complexity theories and seminal works in the area of complexity and management literature with main focus on organizational changes such as M&A and IJV. -Identification of primary and secondary research questions and research objectives. -Need identified to conduct an in-depth review of philosophical debates and issues in applying complexity theories to management research.

Table 8.1 (continued) – Process Steps in the Research Journey

	Aim of the research process step	Research process step	Development of Research questions (RQ) and objectives (RO)	Illustration	Main results
Chapter 3 - Section 3.6	Review of complexity philosophy literature	Research philosophy	RQ2 - What philosophical underpinnings need to be taken care of in applying complexity theories to management research?	Use of secondary sources such as journal articles and books for complexity philosophy literature review.	-Acknowledgement of competing paradigms within the complexity sciences and various paradigm debates in applying complexity theories to study social science phenomena. -Identification of philosophical approach that best suits this research project (critical pluralism/complexity thinking).
Chapter 4	Identification of the research methodology for the research project	Research methodology	RO4 - To develop a complexity research methodology based on the philosophical underpinnings of this research project.	Use of secondary sources such as journal articles and books from M&A, IJV, complexity management and philosophy literature.	-Established relationship between methodological pluralism, complexity thinking and case study research. -Significance of case study research approach in M&A, IJV and complexity research.
Chapter 5	Case study	Application of research methodology to case study organization	RO5 - To collect and analyse the data in accordance with the philosophical underpinnings of this research project.	Use of triangulation in data collection and analysis.	-Provided details on the case study organization and unit of analysis. -Discussed the process and use of triangulation in data collection and analysis. -Provided the coding framework for the data analysis. -Provided the research quality and ethics criteria.

Table 8.1 (continued) – Process Steps in the Research Journey

	Aim of the research process step	Research process step	Development of Research questions and objectives	Illustration	Main results
Chapter 6 and 7	Connection of case study results to M&A, IJV and complexity management literature	Research findings and discussion	*RO6 - To conduct a theoretically grounded discussion of the research findings with reference to M&A, IJV and complexity theories literature.*	-Description of research findings (Chapter 6) -Theoretically grounded discussion of the research findings. (Chapter 7)	-Findings acknowledged people, culture and communication challenges identified in Chapter 2 - M&A and IJV literature review. -Patterns of major transformation can be explained using complexity theories (see Chapter 3) such as dissipative structures and LS and SS view of organizations and complexity principles. -The use of complexity theories provides richer insights in understanding emergent outcomes of M&A and IJV.
Chapter 8	Demonstration of contribution to knowledge, reflection on research process, limitations of the study and scope for future research work.	Conclusion: Contributions, Reflections, Limitations and Future Work	*RO7 - To illustrate theoretical contributions, methodological contributions, practical contributions, reflection on the research process, limitations of the study and future research directions*		

Table 8.1 (continued) – Process Steps in the Research Journey

8.3.   Research Contributions

The outcome of this research lies in various contributions that confirm theory, extend theory, and add to empirical and practical knowledge. These areas of contribution are explained below.

8.3.1. Theoretical Contributions

Even though research questions and objectives were elaborated in detail in Table 8.1, the research questions and objectives below are relevant to the claims as to the theoretical contributions of this research project (see Table 8.1 and also Chapter 3 section 3.5).

➢ RQ1 - What insights can be gained from employing a complexity lens to understand M&A and IJV?

Linked research objectives -

- RO1 - To conduct in-depth review of M&A and IJV literature to explore challenges in M&A and IJV management and to identify gaps in the literature.
- RO2 - To use complexity theories in order to understand patterns of major transformations such as M&A and IJV.
- RO3 - To use complexity theories in order to understand the emergent outcomes of major transformations such as M&A and IJV.
- RO6 - To conduct a theoretically grounded discussion of the research findings with reference to M&A, IJV and complexity theories literature.

8.3.1.1.   *Contributions to Confirming Theory*

The in-depth review of M&A and IJV literature (see Chapter 2) refined and provided theoretical support to the real life observation of M&A and IJV problem. Secondary sources such as journal articles and books were critically reviewed to address research objective RO1. In this review, it was firstly noted that the real life observation of high failure rates of M&A and IJV was acknowledged in the literature; secondly, the literature also aided identification of M&A and IJV management challenges. Among the various challenges, such as financial, legal and strategic, it was identified that people and culture-related challenges are neglected areas in the literature where a contribution to knowledge can be made. The review

helped identify the need for an alternative lens to better understand the inherent complexity of M&A and IJV. The people, cultural and communication issues identified in the literature were also supported with the findings from the case study (see Chapter 6). This helped connect the findings from the case study with M&A and IJV literature (see Chapter 7). It thereby helped substantially in addressing research objective RO6, which concerned the integration of the case study findings with the existing literature.

To further support primary research question RQ1 and research objectives RO2 and RO3, the research project demonstrated use of dissipative structure constructs (Lichtenstein and Plowman, 2009), the Legitimate System (LS) and Shadow System (SS) view of organizations proposed by Stacey (1996) and complexity principles, to understand patterns of major transformations such as M&A and IJV and their emergent outcomes in the context of Organization ABC (see Chapter 6 and Chapter 7). The application of dissipative structure constructs (Lichtenstein and Plowman, 2009) and the LS and SS view of organizations proposed by Stacey (1996) was found to provide very helpful insights in understanding the dynamics and patterns of M&A and IJV, as intended by the primary research question (see Chapter 7). The CAS principles elaborated by Hammer *et al.* (2012) were helpful only to a limited extent, as they were found to be difficult to use in practical analysis. Theories such as dissipative structures and the LS and SS view of organizations were found to provide more holistic understanding of the overall pattern of M&A and IJV. The primary research objectives RO2 and RO3 are discussed next.

8.3.1.1.1. Patterns of major transformations

The research objective RO2 was to study the patterns of major transformations such as M&A and IJV in the context of a single organizational setting using a complexity lens, while research objective RO6 aimed at integrating case study findings with the extant complexity literature. These research objectives were addressed by using a complexity lens comprising complexity theories such as dissipative structures theories, complex adaptive system theories and complexity principles. The dissipative structures theory (Prigogine and Stengers, 1984; Lichtenstein and Plowman, 2009) along with principles of complex adaptive systems (Hammer *et al.*, 2012) and the LS and SS view of organizations (Stacey, 1996) supported the understanding of patterns of M&A and IJV in the context of

this research. M&A and IJV suggested to be disequilibrium states. These disequilibrium states created by M&A and IJV strategies are considered to be deliberate managerial attempts to disturb the existing pattern of behaviour to push the organization into a highly dynamic far-from-equilibrium state. However, the maintenance and sustenance of disequilibrium state is of primary importance for emergence. This state is maintained through internal change management practices of organizations, the reasons behind these strategic choices, the difference of change awareness between change leaders and change recipients and the strategic communication of these changes.

Plowman *et al.* (2007) state that given the high level of interconnection amongst agents in such a dynamic and highly interconnected system, it is hard to predict outcomes for associated actions. Small actions can have big effects and vice-versa. The research highlighted that at times of M&A and IJV, emotions and, individual and organizational level challenges act as amplifying actions (i.e. positive feedback dynamics) which fuel the state of disequilibrium. However, a new emergent order is achieved through recombination dynamics governed by management and individual level actions that self-organize/re-aggregate the resources of the system through learning initiatives, management support, process improvements, location or infrastructure improvement and employee query resolutions. It is the individual and organizational level actions for M&A and IJV challenges that aid recombination of resources. Indeed, recombination dynamics appeared twice in the data: firstly, in the post-integration stage of M&A and IJV to cope with the immediate individual and organizational challenges; secondly, in the current scenario (at the time of data collection) to cope with the current individual and organizational challenges.

The LS and SS view of organizations provides an interesting perspective on patterns of M&A and IJV. Both these systems co-exist and co-evolve in the M&A and IJV change process. LS, whose main task is to fulfil the primary goals of the organization, is mainly responsible for strategic decision making, is aware of strategic decisions, manages change communication and is mainly positive about the change. It is the LS that takes actions against the organizational and individual level challenges posited by M&A and IJV. SS is an informal culture and its primary task is to support or sabotage the LS (Stacey, 1995). SS at times of M&A and IJV plays a very important role. It is the SS which maintains the state of disequilibrium

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by amplifying positive feedback loops. These positive feedback loops are executed through patterns of emotions and individual level challenges experienced by employees within the organization. The SS plays an important role in determining the success of M&A or IJV as it can either provide support or sabotage the change initiative completely. However, it can be argued that the LS of organisation (in this case, organisation ABC) also maintain a state of disequilibrium by continually putting the firm through a series of M&A and IJVs as strategies for growth.

Even if IJVs are considered to be less complex forms of alliance formation when compared with merger or acquisition (Schuler and Jackson, 2001; Todeva and Knoke, 2005), one of the significant contributions of this research which adds to the IJV literature is the evidence of people, communication and cultural issues. The analysis highlighted that these issues are not only prevalent to M&A but also in IJV. The co-existence of positive and negative emotions in IJV draws attention to the fact that people and cultural issues, which is often a neglected, low-priority focus area when compared with financial and legal aspects, are not only relevant to M&A but also persist in IJV. This highlights the need to pay attention to change recipients not only during M&A but also at times of IJV.

8.3.1.1.2. Emergent outcomes of major transformations

The research objective RO3 was to study the emergent outcomes of major transformations such as M&A and IJV in the context of a single organizational setting, using a complexity lens. The emergent outcome of M&A and IJV revealed increase in organizational characteristics improving the functioning of the overall system (Lichtenstein and Plowman, 2009). The M&A and IJV outcomes revealed newly emerged characteristics at both organizational and individual level. The characteristics of a newly formed organization after the resultant merger, acquisition or joint venture are qualitatively more than just the mere sum of "one plus one equals two" (Seo and Hill, pg.2005, pg. 440).

The role of stabilizing/negative feedback also played a significant role in the emergence of M&A and IJV. The research findings highlighted that the unintended outcomes of M&A and IJV and the other internal on-going organizational challenges as negative feedback processes limit the scope of the change, limit what can be achieved from the change and limit the attainment of the full change potential. In other words, this dynamic keeps the system at the edge of chaos

rather than letting it fall into the chaos. This view helps understanding of how M&A and IJV yield more successful results in some organizations than others. The internal context and challenges vary from one organization to another; the interaction of these internal contexts and challenges with the external environment produces even more variations, contexts and challenges. Hence, adoption of generic strategies such as M&A and IJV as a model for growth and expansion demands a higher degree of scrutiny of the internal and external organizational contexts and cultures. It further demands a good understanding of the LS and SS within organizations and requires extraordinary management initiatives to engage with the SS to elicit buy-in to M&A and IJV strategies (Stacey, 1996; Delahaye, 2002, 2005; Halpin and Hanlon, 2008). It also requires understanding of the systemic effects of these changes and how they affect both the LS and SS of the organization. The role of positive and negative feedback processes should be understood in order to handle the LS and SS at times of M&A and IJV. Moreover, the recombination/self-organization dynamic should create an enabling environment for constructive re-aggregation of resources for the new emergent order.

8.3.1.2. *Contributions to Extending Theory*

The main overall contribution of this research project lies in extending the existing understanding of M&A and IJV using a complexity lens (RQ1, RO2 and RO3). In this process, complexity theories such as dissipative structures and the LS and SS view of organizations were used to understand M&A and IJV change management practices in a single organizational setting (pharmaceutical engineering company) based in India. This not only extends the understanding of M&A and IJV using the complexity lens but also extends the understanding of these changes in an emerging economy. It also aids understanding of the dynamic pharmaceutical engineering industry environment, which is always in a state of flux and transformations and undergoes multiple M&As and IJVs in the life span of an organization to cope with the ever changing external environment. Additionally, this research contributes by grounding application of dissipative structures and the LS and SS view of organizations in empirical data and thereby, validating the use of complexity theories to gain deeper understanding of M&A and IJV.

The research is an attempt to extend work on understanding organizational change using complexity theories in general and a dissipative structures approach in particular (Lichtenstein and Plowman, 2009, Lichtenstein, 2000; Chiles *et al.*, 2004; Plowman *et al.*, 2007; Houchin and MacLean, 2005). Other complexity theories such as the legitimate system and shadow system view of organizations (Stacey, 1996; Delahaye, 2002, 2005; Halpin and Hanlon, 2008) along with seminal work in the area of complexity management literature, for example, the CAS lens (Hammer *et al*, 2012) have also informed the understanding of M&A and IJV. However, even though these studies researched organizational change, none of them used dissipative structures in order to study M&A and IJV in a single organizational setting, in an Indian pharmaceutical industry context. Hence, this research contributes not only to M&A and IJV literature but also to complexity management literature. This contribution extends these literatures on the dimensions of geography (i.e. India), industry (i.e. pharmaceutical) and methodology (discussed next).

8.3.2. Methodological Contributions

Below is a subset of the detailed table 8.1 illustrated at the beginning of this chapter (see Table 8.1 and also Chapter 3 section 3.5) showing the research questions and objectives relevant to methodological contributions claims of this research project.

➢ RQ2 - What philosophical underpinnings need to be taken care of in applying complexity theories to management research?

Linked research objectives -

• RO4 - To develop a complexity research methodology based on the philosophical underpinnings of this research project.
• RO5 - To collect and analyse the data in accordance with the philosophical underpinnings of this research project.

This research has attempted to contribute toward methodology in complexity management research. The approach was firstly a) to acknowledge the philosophical debates in applying complexity theories to management research (see Chapter 3 section 3.6) and then b) to develop a complexity research methodology based on the philosophical underpinnings of this research project

(RO4) and c) to collect and analyse the data in accordance with the philosophical underpinnings of this research project (RO5).

Taking a critical pluralist stance (Richardson, 2008) and with the aim of addressing research objective RO4, the researcher mainly adopted Cilliers' (2002) view that complexity is mainly a matter of epistemological concern. The researcher believes that organizations are complex non-linear dynamic systems. Hence, the main focus of this research has been on developing and incorporating complexity theories and approaches in all stages of the research to understand the complex organizational system. The research methodology (see Chapter 4) drew relationships between the philosophical stance of critical pluralist/complexity thinking, methodological pluralism in data collection and analysis and a case study research strategy (see Chapter 4 section 4.2 Figure 4.1). Secondary sources such as journal articles and books from M&A, IJV, complexity management and philosophy literature were used for this purpose.

In order to address research objective RO5, triangulation was adopted in data collection and analysis, which helped improve the construct validity and reliability of the case study research. The data collection comprised interviews, meeting notes and email feedback from the managers and secondary data sources such as academic literature, and organizational archival data records (see Chapter 5 section 5.3). In the data analysis, a combination of various research analysis methods was adopted, such as qualitative coding (Gioia *et al.*, 2013; Saldana, 2013), visual mapping strategies proposed by Attride-Stirling's (2001) framework for thematic analysis and the thematic network approach and data structure proposed by Gioia *et al.* (2013) (see Chapter 5 section 5.4). The executive reports in the data analysis phase helped incorporate Langley's (1999) approach of narrative/textual description. The presentations to the management and consecutive email feedback from the management aided research validation and refined the research findings.

8.3.3. Managerial Implications

The managerial implication of this research is that a complexity lens view to M&A and IJV challenges the traditional linear views about how to manage such changes. The complexity lens highlights the non-linearity of M&A and IJV initiatives, where small changes can be amplified into big effects. Hence, as correctly stated by

Plowman *et al.* (2007, pg.540), "Managers should learn to expect surprise and see it as an opportunity rather than as an indication of poor control". By embracing surprises and chaos, then "we open the door for creative, innovative approaches without the mark of blame and failure" (McDaniel *et al.*, 2003, pg. 270).

It can be argued that most of management decision making and change interventions are superficial or incomplete as they do not take into consideration the unconscious behaviours and self-organized patterns at workplace (Buckle-Henning, 2008). Such a view of M&A and IJV can enable change leaders to understand these change situations in a much richer way. Buckle (2003) argues that the managerial ability to understand unconscious organizational patterns could unravel the collective organizational intelligence that can inform decision making and interventions. This can play a crucial role in M&A and IJV management. Not only can the complexity lens help managers to appreciate the complexity of such critical organizational changes, but the philosophical underpinnings of complexity (see Chapter 3 section 3.6) can facilitate understanding of the limits to knowledge in resorting to prediction, command and control in such complex change situations. It can enable managers to understand humans as agents of a heterogeneous complex system increase the complexity of M&A and IJV as humans can learn and reflect, making individual behaviour unpredictable, which adds to the overall system unpredictability (Mitleton-Kelly, 2003, 2006). This unpredictability adds to the difficulty in predicting the success of M&A and IJV change initiatives. Wheatley (1999, pg.106) argues that "the desires for mastery and prediction can never be satisfied in this non-linear world". As stated by Cilliers (2000), what we cannot learn from complex systems is predictability. Hence, in order to work with such systems we need to focus on the qualitative aspects of the system and observe the system in its wholeness (Wheatley, 1999). Moreover, a multidimensional approach is a must, in an attempt to understand complex systems and in this case, complex changes such as M&A and IJV (Mitleton-Kelly, 2011, 2006; Richardson, 2008).

M&A and IJV managers could also benefit from agent based modelling approaches. Agent-based modelling could be used to enable the creation of simulated business landscapes populated with heterogeneous agents at the individual, departmental, organizational, subsidiary or sector level. At the organisational level such

modelling might be based on the observation of both the LS and SS to inform the development of sets of plausible rules which define the ways in which agents interact. Altering the decision rules and features of the landscape through M&A and IJV might allow experimental examination of behavioural responses. Experimentation through modelling might provide useful input into management debate and decision making about how to manage such strategic alliances.

However, the managerial implications of complexity approaches are not without limitations. Cilliers (2000) states that mere acknowledgement of limitations and unpredictability is not enough. Smith and Graetz (2006) identify the difficulty in translating complexity theory into practice and argue that the explanatory value of complexity theories is more apparent than their prescriptive implementation. The managerial acceptance of complexity requires acceptance of ambiguity, surprises and unpredictability, as opposed to budgeting, planning and control. da Cunha *et al.* (2001) observed that although complexity has been proposed as a new approach to management, only a few managers have intentionally embraced it. Houchin and MacLean (2005) question the claim that organizations are complex adaptive systems that produce novel forms of order. They propose an alternative view that social systems seek equilibrium and can self-organize into hierarchy. Hence, they argue that organizations are anxiety-reducing systems. Smith and Graetz (2006, pg.865) critique complexity approach stating –

"Managers are unlikely to consider the complexity metaphor in more depth until there are some mechanisms through which predictability can be restored. After all, emergent innovation at the wrong time and of the wrong type is probably worse than none at all…… The danger facing managers is that applications of complexity thinking, like new forms of organizing, become reduced to an oversimplified recipe for performance in an uncertain environment."

Styhre (2002) argue that organizational change comprises a series of multidimensional and interconnected activities in the midst of chaos and turmoil. Acknowledging that the nature of self-organization itself cannot be manipulated or altered, M&A and IJV managers can create the necessary conditions for self-organization to occur for innovation and creativity. However, complexity theory itself does not provide the necessary guidelines on how such conditions can be created for emergence. Smith and Graetz (2006) propose the use of order-

generating rules applied to organizing dualities for creation of the conditions for self-organization. Buckle-Henning (2008) proposes deeper understanding of behaviours that drive self-organized patterns at workplace can help better manage and influence organizational behaviour.

8.4.   Role of the Complexity Researcher

The role of a qualitative complexity researcher is different from that of quantitative researchers. The qualitative complexity researcher acts as a vital tool through which the research data is collected and analysed. The presence of a complexity researcher at the research site itself can act as an external perturbation from the environment into the organizational system and vice-versa (Gregory and Ronan, 2014). An example from the research journey emphasizes how the organizational system responds to the perturbations from an external researcher. Two female employees complained about the attitude of some male colleagues within the organization in their interviews. However, when this finding was reported during the TMT presentation, the General Manager Finance informed the researcher that this issue had already been resolved, even before the researcher could report the findings. Potential reasons for this can be assumed as – 1) the suppressed voices gained the strength to voice their concerns even before the researcher could report the findings, as they had an opportunity to rehearse their concerns during the research interviews; 2) this complaint may have become part of the rumour mill after the research interviews and attracted management's attention for quick resolution. It is difficult to know whether the same change would have taken place had researcher not interviewed these participants. The example highlights that the researcher as an external agent can perturb the organizational system and its agents, prompting them to act in a variety of ways.

The organization can also perturb the complexity researcher in the research process. For example, an assistant human resource manager in the initial meetings raised the question - *"Many researchers come and collect the data but what do employees gain at the end of the research?"* Therefore, the organization and its members can perceive the researcher as an "involved researcher" or an "outside observer" (Walsham, 1995, 2006). However, this research as it unfolded over time, demanded a dual role from the complexity researcher. She acted as an involved researcher during research interviews and made specific attempts to report the

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key areas of improvement suggested by both employees and managers to the TMT in the research presentations. The role shifted to being an "outside observer" as the implementation of the findings was left to the management, due to limitations of research access and time. The feedback emails from managers in the months after the presentations highlighted a high level of interest along with thoughtful comments and actions plans on some of the issues identified.

> *"We have approached to the Workers and Executive Staff to address their difficulties or grievances. The same was taken very positively and some of the grievances are addressed keeping HR and Production together." (Email feedback response, General Manager - Finance)*

However, due to the complexity of the organization, the effects are difficult to discern but the feedback emails also highlighted some management actions on the issues discussed in the research presentations, such as training of service engineers and workmen, improvement of communication channels through restructuring, plans to install grievance boxes, policy changes on the grievances highlighted in the interviews, internal movements and restructuring, internal reviews for quick problem solutions and adherence to quarterly performance appraisals. For example, one of the feedback comments stated,

> *"Specific departments of service engineers have been done. The team of service engineers, their managers, and their co-ordinators have been assorted. Clear responsibilities and role-play has been assigned. The training programs were done for most of them through the last 6 months and the 'equipped level' of support is better now." (Email feedback response, Chief Operating Officer – Agency division)*

The management highlighted that these changes are strategic decisions and not all the changes can be implemented at the same time. However, they intend to address and implement the changes in the future. One of the comments from Organization ABC can be perceived as a feedback to the entire research project,

> *"This was an eye opener in some of the cases. As a Manager, one is always busy in routines and is not able to put his time in thinking for the future or on certain changes which are necessary to have affectivity in work. But because of this research, we were able to identify some of the areas where the*

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organisation will have to work". (Email feedback response, General Manager -
Finance)

8.5.   Reflection on Learning

The overall research process has been a learning experience for the researcher. Kolb (1984) states that reflection is a significant part of the learning process. The study has helped the researcher embrace the fine elements of an academic research and develop a critical appreciation perspective for the literature. This research has helped improve the researcher's conceptual understanding of M&A, IJV and complexity literature and use of research methodologies based on appropriate paradigmatic choices for business research. This has helped her understand how the use of methodologies can help the process of data collection and analysis. The study has improved the researcher's ability to be critical of the literature and of the methods used in the study.

Even though the final thesis might appear to be linear and two dimensional, the process of thesis development has been emergent, complex and multidimensional. The research itself has been a complex system where various chapters, sections and sub-sections have interacted and emerged into the final thesis pattern. The process has been iterative and even though the sections, sub-sections and chapters were earlier written in isolation, the combined outcomes at the end has been more than the mere sum of all the individual parts of the thesis.

Finally, the complexity perspective has helped the researcher both personally and professionally in understanding complex systems and importance of boundary. The critical pluralist/complexity thinking school of thought encouraged acknowledgement that we are inherently limited in capturing the millions of interactions at work within the complex system and hence, one needs to accept this limitation when working with complex systems and embrace pluralism to comprehend a complex system within finite limits (Richardson, 2008; Richardson and Cilliers, 2001; Midgley and Richardson, 2007). Thus, the complexity research process involves deeper understanding of the boundary and the process of boundary critique (Ulrich, 1983; Midgley *et al*, 1998; Midgley, 2000).

8.6. Limitations and Further Research Directions

The limitations of the study point to directions for future research. These limitations are discussed below:

8.6.1. Limitations of the Complexity Approach

The complexity theory limitations of this research are similar to the concerns highlighted by Houchin and MacLean (2005). The problems associated with applying complexity theory to organizations are related to the presence of a variety of definitions, different meanings associated with complexity and various forms of theories under the complexity theory umbrella (Houchin and MacLean, 2005; Morel and Ramanujam, 1999). The philosophical issues and debates around applying theories that have developed out of physical, natural, and biological sciences to study social organizations has already been acknowledged and addressed in the thesis (see Chapter 3 sections 3.7 and 3.8). However, the researcher takes Gersick (1991) and Richardson and Cilliers' (2001) view that these research domains should not be held against each other but should be carefully assimilated to challenge each other to suggest thoughtful insights.

Another challenge to complexity research is the presence of various schools of thought (see Chapter 3 section 3.7), ranging from the reductionist school making use of computer simulations to the metaphorical school, which makes use of complexity language and lens to gain insights into the social world. This research acknowledges both the schools adopting a critical pluralist approach (Richardson, 2008; Richardson and Lissack, 2001). However, it takes Richardson (2008) and Cilliers' (2000) advice that only a modelling approach to the complexity of human systems is not sufficient, but that does not mean it is unnecessary. Richardson and Lissack (2001, pg.44) argue that "mathematical models are metaphors of reality, a metaphor simply being a partial description of one thing in terms of another". Therefore, Richardson (2008, pg.21) suggests that, "it leads to a particular attitude towards models, rather than the privileging of one sort of model [or approach] over all others. And, rather than using complexity to justify an 'anything goes' relativism, it highlights the importance of critical reflection in grounding our models / representations / perspectives in an evolving reality. The keywords of this school might be pluralism, open-mindedness and humility." The keyword proposed by Cilliers (2000) for this reflection is 'ethics'. He states that, firstly,

ethics have already played a part when the limits of the model were determined; secondly, the problem would still persist as the information provided by the model needs to be interpreted. Hence, a model of M&A or an IJV organizational system, even though it can be appealing, will have to be "as complex as the system itself" (Cilliers, 2000, pg. 31). Therefore, future studies can aim at building complex system models of M&A and IJV but they do not free us from the responsibility of ethical interpretations and decisions (Cilliers, 2000).

On the empirical front, the last two decades have seen an increase in the amount of empirical work that has attempted to move complexity theory into management research (Vidgen and Wang, 2009; Clayton, 2010; Lauser, 2010; Houchin and MacLean, 2005; Eoyang and Olson 2001; Mitleton-Kelly, 2006, 2011; MacLean and Macintosh, 2011; Shaw, 1997; Hammer *et al.*, 2012; Lichtenstein, 2000; Chiles *et al.*, 2004; Plowman *et al.*, 2007). These studies have elaborated a mix of case studies (Vidgen and Wang, 2009; Houchin and MacLean, 2005; MacLean and Macintosh, 2011; MacIntosh and MacLean, 1999) and/or action research based consultancy assignments (Shaw, 1997; Eoyang and Olson 2001; Mitleton-Kelly, 2006, 2011; Stacey, 1996; Griffin, Shaw and Stacey, 1998). Researchers using complexity approaches for their consultancy assignments describe work that they did to create situations that enable self-organizations and foster agent interactions for emergence of novel order (Houchin and MacLean, 2005). However, Houchin and MacLean (2005) argue that these researchers fail to state how effective their interventions were over the longer term. One of the purposes of this research has been to increase the empirical research in the area of application of complexity theories to management research. However, future work is warranted in order to assess the long term effects of such complexity interventions. Theoretically grounded rigorous long term studies (both qualitative and quantitative) are recommended to address and also to highlight the strengths and weaknesses of complexity approaches.

8.6.2. Limitations of Research Boundaries

It was notified that M&A and IJV literature spans across wider domains of strategic management, finance, economics, organization theory and human research management (see Chapter 2). This research placed the boundary across the neglected areas of human, cultural and communication aspects of M&A and IJV (see

Chapter 2 section 2.8) owing to the limitation of time, expertise and organizational access. However, future in-depth longitudinal case studies with a wider research expertise can meet Larsson and Finkelstein's (1999) recommendation on holistic and integrated approaches to study M&A and IJV.

8.6.3. Limitations of Case Study Research Approach and Issues of Generalization

Even though case studies have been a popular research strategy in complexity management research, the main limitation of this research lies with the issue of generalization associated with case study research approach. Gummesson (2000) argues that case studies lack statistical reliability and validity. Hence, generalization cannot be made on the basis of case study research. Taking the critical pluralist stance, this researcher agrees that research approaches are not free from their own set of strengths and limitations. It is acknowledged that generalization is a matter of concern in conducting case study research (Saunders et al, 2007; Gummesson, 2000). Hence, this research proposes Gummesson's (2000, pg.97) view, which supports the critical pluralist stance of this research: "As long as you keep searching for new knowledge and do not believe you have found the ultimate truth but, rather, the best available at the moment, the traditional demand for generalization becomes less urgent".

Marshall (1996) criticizes researchers who think generalizability is the main goal of the research and proposes the usefulness of small samples and cases. He emphasizes that the main aim of qualitative research is to develop in-depth understanding of complex human issues. Gummesson (2000) supports this argument by stating that many researchers and consultants make generalization an implicit assumption of research. However, he argues that the management research conceptualization and conditions are rarely subjected to the same controlled environment as the natural sciences. Hence, there are high chances that existing theory would prove inadequate in the new cases. Gummesson (2000) claims that the opposite of generalization is particularization, meaning that social phenomena are specific situations and far too likely to change to permit meaningful generalization. As proposed by Cilliers (2000), complex behaviour can be predicted only as a form of generalization. However, when dealing with a complex system, we are more than likely to face the particular nature of the system

at any given moment. As we do not know the boundaries of the system, it can never be known for sure if we have taken enough into consideration. Therefore, as argued by Cilliers (2002, pg.78), "as far as complex systems are concerned, our knowledge will always be contextually and historically framed." However, statistical generalizations seek to identify common patterns across various cases so that context can be discounted (Tsang, 2014). This research highlights the importance of context (see Chapter 4 section 4.2.1.2) in conducting complexity research. However, the results of this study parallel the findings from Plowman *et al.* (2007), Chiles *et al.* (2004), Lichtenstein (2000) and Houchin and MacLean (2005), along with the legitimate and shadow system view of organizations proposed by Stacey (1996). Future studies of other M&A and IJV cases from different countries and economies from a complexity lens perspective are needed to reflect further on the research findings more broadly, to support emerging theory of complexity in management.

8.6.4. Limitations of Data Collection and Analysis

Whilst efforts were made to ensure this research was as holistic as feasibly possible through data and analytical triangulation (see Chapter 5 section 5.3 and 5.4), reflection on limitations of the study suggests possible future directions for research.

This research used a number of measures to guard against biased findings based on retrospective reports (see Chapter 5 section 5.3.1), but longitudinal ethnographic case studies in the midst of M&A and IJV could be better positioned to overcome this limitation. These studies could ideally include a series of focus groups or interviews in various stages of M&A and IJV with both managers and employees to understand emergence of M&A and IJV. A similar research approach, even though appealing, was difficult to attain with this research project due the nature of the research topic the potential sensitivity and confidentiality around M&A and IJVs aroused difficulty in obtaining research access (see Chapter 5 section 5.6). As suggested by Chiles *et al.* (2004), future studies could look at larger data sets using sophisticated measures to study the change points and track organizational diversity over time and use narrative accounts to triangulate the results for a better perspective on deeply embedded organization structures, their evolution and emergence. As suggested earlier (see section 8.3.3), M&A and IJV

research could benefit from agent based modelling approaches. Future studies could focus on building simulation models based on networks of relationships, feedback loops and rules of interaction among M&A and IJV agents at various internal and external organizational levels.

This research used one partner respondent as a data source in context of IJV and only three acquired members were available with the organization for interviews in M&A context. Even though one partner respondent as the data source is a justifiable option and has commonly been used (Damanpour *et al.*, 2012; Beamish and Lupton, 2009), future studies can explore a fuller understanding of M&A and IJV management in post-integration stages by collecting data from both partner organizations.

Theoretically and analytically, the results of this study supported the dissipative structures approach and the legitimate and shadow system view of organizations. However, the researcher experienced difficulty in using complexity principles for analysis; for example, the sixteen facets of Hammer *et al's.* CAS lens (2012). The main reason for this could be the overlap and interconnections between these principles, which add to the challenge of differentiation in data analysis. However, future studies can focus on identifying the working of various complexity principles in the M&A and IJV organizational context.

8.7. Conclusion

The thesis began with a problem identification of 'global increase in demand for M&A and IJV versus high failure rate of M&A and IJV' which led to the endeavour of this research project. The first step was to investigate this observation in the realm of the literature. The support of M&A and IJV literature further strengthened researcher's confidence in the research topic. However, the attention moved to complexity theories as an alternative lens to understand M&A and IJV management and their emergent outcomes. The thesis included a review of complexity management and complexity philosophy literature before moving to a discussion of the research methodology for the research project. The research adopted a case study research approach to focus on M&A and IJV activity in an Indian pharmaceutical engineering firm, using the lens of complexity. The research used dissipative structures theory and legitimate and shadow system view of

organizations to better understand patterns of major transformations such as M&A and IJV and their emergent outcomes. The primary research question RQ1 – "What insights can be gained from employing a complexity lens to understand M&A and IJV?" was answered as this research provided a complexity theory-informed interpretation of M&A and IJV management and their emergent outcomes.

This research has provided considerable insight into the complex phenomena of strategic alliances. Furthermore, the research is doubly systemic in not only addressing complex phenomena but also adopting a complexity approach to the research. The contribution to knowledge established through this research will provide the basis for further learning in an emergent, unfolding future.

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Appendices

Appendix 1 - Research Access

Appendix 1.1 Research invitation email

Good Morning.

I am Richa Joshi, a researcher pursuing PhD from Hull University Business School, United Kingdom. I have obtained your reference from a mutual contact. I would like to take this opportunity to contact you for my research.

Hull University Business School is one of the few triple accredited universities in the UK with renowned research standards. My area of research is Organizational change and M&A. I am looking for a research opportunity with an organization which has been or is about to be acquired or merged. I wanted to inquire if your organization has any such opportunities for research. Even organizational changes made in the past can serve as good research sites.

My research aims to study organizational changes such as M&A and IJV. Employees' perspectives will be understood in detail. This understanding would provide important insights into how organizations can enhance their change adaptation techniques. Data collection would mainly involve interviews. These interviews would be transcribed verbatim. In addition to that, some minor data related to the organizations would be required to build the background. The organization and the participants would be kept anonymous in the research and all the data collected would be confidential. The data collection would start early next year. Early approval would help me tailor the research with respect to your organization.

Currently, the research is in its literature review stage and is subjected to some modifications. Broadly, the aim is to provide enhanced understanding of managing M&A and IJV. The other benefits include:

- An in-depth free consultancy perspective to enhance your reputed organizations' change management approach.
- Reflection based on in-depth research over a past organizational change providing fruitful insights on future change management.
- An assessment of employees' perspective on organizational change through open-ended interviews.
- These insights could help implement change adaptation programmes for employees leading to increased retention rate.
- Recommendations could add to the knowledge base of future change management strategy development.
- Extensive research under guidance and supervision of experienced researchers from a renowned University in United Kingdom. This research will be conducted under the expertise of Dr. Amanda Gregory (Head of Management Systems) who has published various successful articles in reputed journals.
- Copy of my thesis.

- New contribution to knowledge with your support helping both academic and practitioner research.

Kindly let me know if you need any elaborate clarification on any aspect of the research. Your advice and support can help me make a unique contribution to knowledge. I look forward to your reply.

Thank you. Have a nice day.

P.S.: I have attached a printer friendly copy of this email.

Best wishes,

Richa Joshi
PhD in Management 2010-2013,
Hull University Business School, U.K.

Appendix 1.2 Organizational access approval email

To,

The University of Hull,
Hull University Business School,
University of Hull, Cottingham Road, Hull, HU6 7RX

I, Mr.   General Manager at   Pvt. Ltd, on behalf of my colleagues at   Pvt. Ltd. and   Pvt. Ltd. would like a confirmation from The University of Hull that all the data involved in the research would be kept confidential and anonymous. The data would not be revealed to our competitors or any other sources. This is very important for our documentation purposes as we have accepted the invitation to participate in the research under the working title: 'A Complex Adaptive System Approach to Manage International Joint Ventures and Mergers and Acquisitions' being undertaken by Miss. Richa Joshi.

We would appreciate that the name of the firms and of the participants is not reflected in the thesis or in any related publication. We understand that the confidentiality and anonymity would be ensured as per The University of Hull research ethics code. All the data would be confidential and will not be shared with anyone who is not related to this research. The organization and participants will be kept anonymous. The recordings would be transcribed and would be sent for approval to the respective participants. All the recordings will be kept confidential, and will only be handled by the researcher and the supervisor during data transcription, coding and analysis. We have been informed that anonymous excerpts and overall research findings from the analysis of the data collected may be used for research publications, so that it will not be possible to identify participants or the firm from these excerpts.

I would appreciate a signature/stamp on this letter from The University of Hull for our documentation.

Thank you very much.

With Regards,
| General Manager - Finance |

Appendix 1.3 Confirmation from University on Confidentiality and Anonymity

UNIVERSITY OF Hull

To,

The General Manager,

Mumbai, India

Subject: Research Letter

This letter is to confirm that Miss. Richa Joshi is a PhD in Management Student at the University of Hull, Business School, Hull, United Kingdom. She is pursuing research under the working title: 'A Complex Adaptive System Approach to Manage International Joint Ventures and Mergers and Acquisitions'. She is intending to collect her research data at your reputed firms during the course of her PhD. She has assured the confidentiality and anonymity of the research data. Confidentiality and anonymity would be ensured as per The University of Hull research ethics code. All the data would be confidential and will not be shared with anyone who is not related to this research. The data will not be revealed to your competitors or any other sources. The organization and participants would be kept anonymous. Participants and firm names will not be disclosed throughout the research thesis or in any other related academic publications. Interview transcripts would be numbered or aliases would be used to keep the original identity anonymous. The outcome of the workshop is more important and therefore, names of individual attendee will not be mentioned in the thesis or related academic publications. All the data will be secured in a locked filing cabinet in an office at the University of Hull. All the recordings will be kept confidential, and will only be handled by the researcher and the supervisor during data transcription, coding and analysis. Anonymised excerpts and overall research findings from the analysis of the data may be used for research publications, so that it will not be possible to identify participants or the firm from these excerpts.

Thank you very much for participating.

Best wishes,

Hull University Business School
University of Hull
Hull, HU6 7RX
United Kingdom

School reception
+44 (0) 1482 347500

www.hull.ac.uk/hubs

EQUIS

Association of MBAs

Appendix 2 - Research Ethics

University of Hull ethics approval email

Approved Research Ethics Proforma HUBSREC2012/27 - Google Chrome

https://mail.hull.ac.uk/owa/?ae=Item&a=Open&t=IPM.Note&id=RgAAAACNOS4ZS98YRKxacHj3JyuyBwDZVfoob1qaSqK1rI5BAIMkAAAB1GdBAADZVfoob1qaSqK1rI5BAIMkAAADvxMyAAAJ&p:

Reply   Reply All   Forward

Approved Research Ethics Proforma HUBSREC2012/27

Sheila J Dryden

To: Richa V Joshi

Cc: Pippa A Alanson

Attachments: Letters Richa Joshi.pdf [128 KB] [Open as Web Page]

28 September 2012 3:58 PM

• You replied on 08/10/2012 2:14 PM.

Hi Richa

Please note that Thanos Papadopoulos on behalf of the Research Ethics Committee has approved 'A Complex Adaptive System Approach to Manage International Joint Ventures and Mergers and Acquisitions' on 24/9/12.

Please also see attached pdf documents; signed letter from Gerald Midgley to Parle Global Technologies Pvt. Ltd and letter to UoH from Shailesh Prajapati with HUBS stamp.

Best Wishes, Sheila

UNIVERSITY OF Hull

Sheila Dryden
School Services Administrator

s.dryden@hull.ac.uk
T +44 (0)1482 463442

Hull University Business School
University of Hull
Hull, HU6 7RX, UK
www.hull.ac.uk/hubs

Appendix 3 - Research Interviews

Appendix 3.1. Generic Interview questionnaire

Date of the Interview: Start time: End Time:
Pseudonym of the Person Interviewed:
Other Basic Interviewee data – Gender, Number of years of experience, Designation and Location or Department
Informed Consent Procedure and Explanation of research purpose, confidentiality and anonymity details.
Interview questions (Time for the interview – 1 hour)

Purpose 1 - To explore employees' experience of M&A and IJV

1. Were you aware of the merger/acquisition/IJV (M/A/IJV)? What was your knowledge about it?
2. Tell me the story of when did you hear about the M/A/IJV and then how did you feel about it?
3. How was the M/A/IJV communicated? Was the M/A/IJV communication satisfactory?

Purpose 2 - To investigate the challenges faced and actions taken to cope with the challenges

4. What changes you experienced before and after the M/A/IJV with respect to work culture, facilities, pay package, management changes, work practices, individual development, organization development, management reporting etc.?
5. In what ways the M/A/IJV has affected you? Please can you support this with examples/incidents
6. What changes have you had to go through to adapt to the M/A/IJV? Please can you state few examples?
7. Did you have any queries about the M/A/IJV? How was it addressed?
8. What changes did you expect from the M/A/IJV? Please can you state one key change that you expected?
9. How did employees interact about the M/A/IJV?

Purpose 3 - To identify existing pattern of behaviour
   To understand the factors which are currently inhibiting the working of complexity principles to produce favourable change outcomes
   To explore current expectations

10. Are there any working practices which are still affected by being from different companies?
11. How would you describe your work relationship with your colleagues? Please can you provide an example
12. How would you describe your work relationship with your seniors? Please can you provide an example
13. How would you describe your work relationship with your colleagues from merged firms? Please can you provide an example
14. How communication takes place at work? How things get done? Please can you provide examples/incidents
15. Which departments you co-ordinate with and how?
16. What growth and development changes do you experience before and after the merger? What do you feel about it?
17. What career prospects do you see in the merged firm?
18. What one key change you expect to see in the current scenario? Why?

Appendix 3.2. Research consent form

Hull University Business School

RESEARCH ETHICS COMMITTEE

CONSENT FORM: Interviews

I,   of

Hereby give permission for
The research under the working title - A Complex Adaptive System Approach to Manage International Joint Ventures and Mergers and Acquisitions

to be involved in a research study being undertaken by Miss. Richa Joshi

and I understand that the purpose of the research is

- to enable managers and employees to better understand patterns of behaviour that undermine post-integration change objectives
- to enable managers and employees to identify points of leverage to change current patterns of behaviour to support post-integration change objectives

I understand that
1. Upon receipt, my questionnaire will be coded and my name and address kept separately from it.
2. Any information that I provide will not be made public in any form that could reveal my identity to an outside party i.e. that I will remain fully anonymous.
3. Aggregated results will be used for research purposes and may be reported in scientific and academic journals (including online publications).
4. Individual results **will not** be released to any person except at my request and on my authorisation.
5. That I am free to withdraw my consent at any time during the study in which event my participation in the research study will immediately cease and any information obtained from me will not be used.

    Signature: Date:

The contact details of the researcher are:

Richa Joshi
PhD in Management,
Hull University Business School,
University of Hull, Cottingham Road, Hull, HU6 7RX
Email: r.joshi@2009.hull.ac.uk
Mobile: +44-07842689745

The contact details of the secretary to the HUBS Research Ethics Committee are:
Amy Cowling,
Hull University Business School,
University of Hull, Cottingham Road, Hull, HU6 7RX.
Email: a.cowling@hull.ac.uk; tel. 01482-463410.

Appendix 4 - Dissemination of Findings and Feedback to the Company

Appendix 4.1. Confirmation of research presentations

From:
Date: 15 July 2013 05:24
Subject: Research Presentation
To: Richa Joshi <risagii@gmail.com>
Cc:

Dear Madam,

We here by confirm that, Ms. Richa Joshi-Doctoral Researcher, Centre for System Studies, Hull University Business School Has successfully conducted Presentations at our Office on 2nd July' 2013 & 8th July' 2013 on M&A Research.

Following Participants were presented 2nd July' 2013

1. Mr.   CEO

2. Mr.   General Manager-HR & Admin

3. Mr.   General Manager-Finance

Following Participants were presented 8th July' 2013

1. Mr.   Director & COO

2. Mr.   COO

Wish her all the very best !

Thanks & Regards

        MANAGER - HR & ADMIN.

                    PVT. LTD.

Appendix 5 - Thematic Network Diagrams

Strategies for growth

Quick Growth based on Accelerated growth vision

Less Overheads

Growth through Various Business Ventures and Alliances

Customer's Demands

Main Reasons for inception of Agency division

Agency

Internationalization / Market reach/ Business Expansion

Technology Sharing

Competition, Cost, Growth, Industry Demand, Leader in Domestic Market, Strategic Move, To learn the aspects we were failing in

Mutual Benefits

Main Reasons for Tooling Division Joint ventures with American Firm

Long term perspective, Quality or Delivery Improvements

Market demands

Customer Demands

Main Reasons for inception of packaging division

Industry Demands

Boost the manufacturing arm of the business overall

Packaging Division

Inception of New Business Divisions

Boost the product, Partner Approached us,People Skills, Process Know-how

Strategies for Growth

Reasons for Acquisition

Willingness of the acquired owner to sell

Good price for the acquisition deal

Quick acquisition of already proven technology in market available for re-engineering

Main Reasons for Merger - One Firm Model

Ease of Co-ordination

Group synergy and bigger external image

Internal Family type relationship

Customer's demands

Living upto Accelerated Growth Value and Based on One roof solution vision

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Change awareness and Communication

Higher Change Awareness in Management

- Higher management must be aware of IJV - Employees think — 3,4 →
- Higher and Middle Management Aware of the IJV News — 5,10 →
- Manager Aware about acquisition decision - Management member — 1, 5 →
- Things are kept in closed cabins and Employees Unaware — 4,5 →
- Awareness from individuals HODs to employees — 3,4 →
- Some departments more aware than others — 2,2 →
- **Management Aware of the change - 11,30 - Change Awareness**

Lack of Change awareness and communication from management amongst employees

- Lack of M&A communication from management — 6,17 →
- Lack of awareness of M&A News — 5,9 →
- Lack of awareness of IJV News — 8,11 →
- Aware of IJV decision informally — 7,24 →
- **Lack of awareness amongst employees - 19,61**

Decision making by top management

- IJV decision was taken by top management — 4,4 →
- M&A Decision making by top management — 3,4 →
- **Decision making by management only - 7,8**

Informal Sources of Change Awareness and communication

- Informal sources for Acquisition news — 1, 4 →
- Informal sources for Merger news — 1, 3 →
- Informal sources for IJV news — 7, 19 →
- **Informal sources of news - 9, 26**

Change Communication from the management

- Informal and unplanned merger news communication — 3,6 →
- Fomal Announcement for the IJV news — 13, 68 →
- Union members informed before IJV — 1, 8 →
- No IJV Communication strategy for different types of employees — 6,6 →
- Mgmt Reasons for not informing employees before about the IJV — 6,33 →
- Acquired management informed acquired employees — 2,5 →
- **Change Communication - 18,118**

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Patterns of emotions

Patterns of Emotions

- Paradox
- Conflicting Opinions
- Uncertainty
- Fear
- Acquired Employees feelings at the time of lay off
- Manager felt sad
- Felt Harassed
- Confusion
- Felt betrayed
- Felt affected
- Acquired Employees and managers feelings - 3, 26
- IJV Employee feelings - 7,14
- Indifferent
- CEO's Feelings - Scared
- Negative Emotions
- Patterns of Emotions - 29, 249
- Positive Emotions - 25, 153
- Positive feelings related to IJV from Employees
- Merger Just a label change
- Positive feelings related to IJV from Managers
- Acquiring employees positive feeling about the acquisition
- Acquired management's positive perception about the acquiring firm
- Queries and Concerns - 14,54
- Management handling queries and concerns
- Workmen PF problems and concerns after merger
- Acquired employees concerns and job related, relocation uncertainty
- Concerns and questions after IJV
- Sales team query after merger

Edge labels: 2,2 ; 1,1 ; 2,5 ; 3,5 ; 1,7 ; 2,7 ; 1,1 ; 1,1 ; 1,1 ; 1,9 ; 3, 26 ; 7, 14 ; 1,3 ; 14, 54 ; 16,97 ; 25, 154 ; 9,75 ; 8, 29 ; 8,48 ; 2,2 ; 1,2 ; 5,12 ; 3,9 ; 6,33 ; 1,1

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Modes of query resolution and defensive mechanisms

Informal modes of Communication to Answer Employee Queries

- No formal modes of communication to answer queries in IJV Firm
- Acknowledgement of the gaps in communication to employees in IJV
- Union workers handle shopfloor queries
- Employees seek answers from people close to them in IJV Firm
- Management Aware about rumours and speculations amongst employees related to IJV
- IJV
- Culture to get clarification from seniors
- Seniors or HODs handle queries culture in IJV Firm
- Informal channel for acquired employees query resolution - Clarification from Seniors
- Informal Modes of communication to answer employee queries - Culture to get clarification from seniors - 16, 66
- Informal channel for Query Resolutions after Merger - Clarification from Seniors
- Shadow System Culture of getting queries and concerns answered

Edges: 3,4 · 2,4 · 5,20 · 6,13 · 1,3 · 2,3 · 5,7 · 13,58 · 1,2 · 2,6

Management Defensive Mechanisms for not effectively handling queries and concerns

- Not required as we knew we would not implement US system
- Questions die down eventually
- Shopfloor does not have much time to gossip
- Less involvement in work leads to gossip
- Shopfloor was not affected as they were not in interaction with them
- Management reasons for not effective query resolution - 9,66
- Impact is more when different entity comes and joins
- Denying that there were any queries
- This is different kind of JV
- SM thinks no queries - Communication was clear at all levels
- Thinking answering queries is not required

Edges: 1,1 · 1,1 · 2,2 · 1,4 · 2,2 · 2,6 · 1,2 · 1,1 · 1,2 · 4, 11

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Management query resolution

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M&A and IJV challenges and actions

**M&A and IJV Challenges -
Mention who highlighted what
challenges**

- People → 3,5 → Acquisition Challenges
- Product design → 2,4 → Product
- Product Servicing → 1,6 → Product
- Product → 2,10 → Acquisition Challenges
- Location → 2,2 → Acquisition Challenges
- Acquisition Challenges → 6,17 → M&A and IJV Challenges - 25, 125
- M&A and IJV Challenges - 25, 125 → 10, 57 → IJV Challenges
- IJV Challenges → 6,29 → People
- Communication Gap - Timezone and Language → 6,19 → IJV Challenges
- People → Resolved only with time
- Communication Gap - Timezone and Language → Resolved only with time
- M&A and IJV Challenges - 25, 125 → 11,48 → Merger Challenges
- Merger Challenges → 7,18 → Location
- Merger Challenges → 7,20 → People
- Product → 3,9 → IJV Challenges
- Location → Change in Infrastructure and facilities
- People → Introduction of different roles for Sales team concerns after merger
- Team Shuffling and centralization → 5,7 → Merger
- Change in Infrastructure and facilities → 3,6 → Merger
- Introduction of different roles for Sales team concerns after merger → 3,8 → Merger
- No change after merger → 9,51 → Merger
- Merger → 13,72 → Multiple Change Introduction 32,208
- Location Change with travelling and vendor outcomes → 5,5 → Acquisition
- Product reengineering → 6,8 → Acquisition
- Employees Lay-off with outcome people issues → 5,14 → Acquisition
- Acquisition → 10,33 → Multiple Change Introduction 32,208
- Name change and at acquired location for one year → 5,6 → Acquisition
- Multiple Change Introduction 32,208 → 14,98 → IJV
- Increased Reporting → 5,16 → IJV
- Change in Infrastructure and Facilities → 5,16 → IJV
- Process improvements → 8,18 → IJV
- Quality related improvements → 3,6 → IJV
- Specialized Points of Contacts → 2,6 → IJV
- Technological improvements → 10,24 → IJV
- Name of company changed - GM → 1,1 → IJV
- Change in layout - Different Departments → 5,11 → IJV

Multiple Change Introduction

307

Learning initiatives and management support

Learning initiatives and behaviours - Shadow System

- Willingness to learn by IJV and Merged Employees → **13,43**
- Self learning initiatives by IJV Employees → **2,4**
- Acquired employees had to learn new ways of working → **1,5**
- Feeling of Strength → **2**
- Acquired employees learnt new machines and language → **2,4**
- Positive attitude toward Change and learning → **4,9**
- Merger - Just a label change - Working in the same way → **8,29**

Learning initiatives and behaviours - 25,126 ← **6,32** ← Self-organizing groups

- Computer and programming learning initiatives → **4,20**
- Learning after acquisition - Holding Hands → **2,11**
- Union to seek answers for PF problem → **1,1**

But sales team had to learn new products

Management support for learning initiatives and behaviours - Legitimate System

- Making Senior workmen adapt by introducing US measurement technique → **1,1** → Workmen Training
- Shopfloor workmen were shown videos from US → **1,2** → Workmen Training
- Training was given to workmen → **1,3** → Workmen Training
- Workmen Training → **2,6** → Support for planned learning initiatives
- Managers sent to learn from American Partner → **7,13** → Support for planned learning initiatives
- Support for planned learning initiatives → **8,19** → **Management Support for learning - 12,27**

Management Support for learning - 12,27 ← **5,7** ← Support to SOG and learning behaviours

- Awareness of how both company and individuals learn → **1,1** → Support to SOG and learning behaviours
- Encouraging others to learn by giving self examples → **1,2** → Support to SOG and learning behaviours
- Help of HOD and management to allow learning → **3,3** → Support to SOG and learning behaviours
- Initial Guidance on new things → **1,1** → Support to SOG and learning behaviours

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Internal Challenges - M&A Firm

Communication Gaps →(4,9) Communication
Communication issues are being addressed →(1,1) Communication
Waste of time in internal communication →(1,2) Communication
Shouting to get work done faster →(1,4) Communication
Conflicting communication between individuals →(1,2) Communication
Lack of interaction - No periodical meetings →(1,3) Communication
Getting work done followed by reminders →(1,3) Communication
Strong communication to get work done →(1,1) Communication

Communication → Internal Challenges

Workmen suggestions unheard by the management →(1,3) Employees Issues with management
Lack of decision making by seniors →(1,2) Employees Issues with management
No rewards and recognition →(1,1) Employees Issues with management
Lack of feedback to employees →(1,1) Employees Issues with management
Lack of motivation →(6,21) Employees Issues with management

Employees Issues with management →(6,28) People Issues - 13,85

Lack of ownership →(1,5) Management issues with employees
People Management - Weak area →(1,2) Management issues with employees
People go back to their old routines →(1,1) Management issues with employees

Management issues with employees →(3,8) People Issues - 13,85

People Issues - 13,85 → Internal Challenges

Lack of professionalism →(1,2) Cultural Issues
Don't know who will stab you from the back →(1,1) Cultural Issues
Blame culture →(1,1) Cultural Issues
Females names are taken with males →(2,6) Cultural Issues
Talking behind my back →(1,1) Cultural Issues
Current work attitude is 'it will do' (Chalta - hai) →(1,1) Cultural Issues

Cultural Issues → Internal Challenges

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Emergent Outcome of M&A - Legitimate System

Emergent Outcome of M&A - Shadow System

Internal challenges - IJV Firm

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Emergent Outcome of IJV - Legitimate System

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Emergent Outcome of IJV - Shadow System

Process and Product related - Delay in receiving tools, Machine maintenance, delay from suppliers, drawing errors, Highly critical product, In-process rejections

Workmen related - Absenteeism, Knowledge, attitude and workmen overconfidence, Operator Fatigue, 10 micron is acceptable mind set, defensive routines Vs General Manager mindset

9,21

7,22

Reasons - On time Delivery Challenges

10,45

Emergent Outcome

20,341

Change in Management perception

Effect on employee mind set

Effect on growth opportunities

Effect on individual development

Effect on the work culture and work practices

Learning from American Partner

5,25

7,17

4,9

10,26

14,42

15,122

Positive Outcomes

20,441

19,198

Good relationship with American Partner (Why this IJV has worked)

Loss to the company

5,14

Waste of Time

2,7

Consequence of Rework or In-process rejections

6,33

Outcome of IJV

8,43

People Issues

8,43

Increased expectations after IJV from both employees and management

14,111

17,153

Communication Issues

16,93

10,60

New email culture Vs Personal Interaction

Limited people with Communication access to American Partner

Stress and fear amongst employees

3,11

Cultural Issues

14,111

Stress in the Culture

Blame culture

Comparison with American Partner

Indian VS International customer challenges

9,43

7,22

9,61

Two categories of managers

Indian Vs American partner organizational culture

Current work attitude is 'it will do' (Chalta - hai)

1,1

Cutting excuses

1,2

Lack of professionalism - Lots of reminders needed

4,17

Lack of time boundation and commitment

2,3

Lack of transparency within the firm

1,2

Lethargic or ignorant appraoch toward work

1,2

2,8

1,8

Old culture was more supportive

No improvement In culture - Still Indian Culture is the biggest concern

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Change Suggestions emerging from both Legitimate and Shadow System

Objective alignment

Increased motivation from management

Cultural awareness from American partner

Stress relieved work environment

Work Approach - Professional, No reminder, Focused, Unity, Customer Delight

Faster Change response from people

Consistent approach to work

Suggestions for design department

Suggestions for servicing department

Work practices related suggestions

Other Suggestions

Manufacturing related suggestions

Team building approach

Suggestions to Management

People and Culture related suggestions

IJV

Change Suggestions

M&A

Training and development Suggestions

Performance Management Suggestions

Need to drive change

HR related suggestions

Employee Retention and Training suggestions

Product and process related suggestions

Desired Plans for the future

People, Communication and Culture related

Improvement in Employee induction programme

Culture related - Branding related to one roof solution

Suggestions to management

HR related suggestions

Recruitment related Suggestions

1,1
2,9
4.11
3,4
5,6
1,1
1,1
2,4
1,4
8,26
1,3
9,37
1,1
7,22
19,163
19,290
17,154
17,88
3,3
3,3
9,20
6,31
4,15
4,9
2,5
1,3
3,8
19,108
13,116
4,48

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Organization level analysis for common Internal Challenges

People go back to their old routines or not willing to change

Workmen suggestion unheard by the management

Slow change response and should not resist change

Lack of decision making in subordinates

Acknowledgement that People are important

Seniors involved to get work done

Interdepartmental issues - Relation at Cross roads

Respect based on seniority and not age

Employees point of view

Values and thoughts mismatch down the line

7,20

2,2

3,8

1,3

2,3

1,10

3,5

2,5

Communication issues within people

8,52

Communication Issues

14,189

Internal Challenges - IJV

13,90

People Issues

6,23

Managerial point of view

13,137

6,32

1,32

Delay because of work dependency on others

13,57

Cultural Issues

Lack of professionalism

Lack of professionalism - Lots of reminders needed

Lack of management touch and motivation

Lack of transparency within the firm

People not let others grow

Lack of professionalism and Ego problems

Lack of professionalism - Getting work done depends on relationship

2,4

1,5

1,15

Common points in both diagrams

People Issues
1) Workmen suggestions unheard by the management in both
2) Lack of decision making by seniors Vs Lack of decision making by subordinates
3) Acknowledgement people are important and accepting people management is the weak area
4) People go back to old routines in both

Communication Issues
1) Waste of time in internal Communication Vs Interdepartmental issues
2) Other communication issues

Cultural Issues
1) Lack of professionalism
2) Lack of motivation
3) Blame culture
4) Chalta-hai attitude
5) Other uncommon but important issues - Females name taken, lack of ownership, lack of feedback from management, lack of transparency,People not letting others grow,

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Organization level analysis for common Internal Challenges

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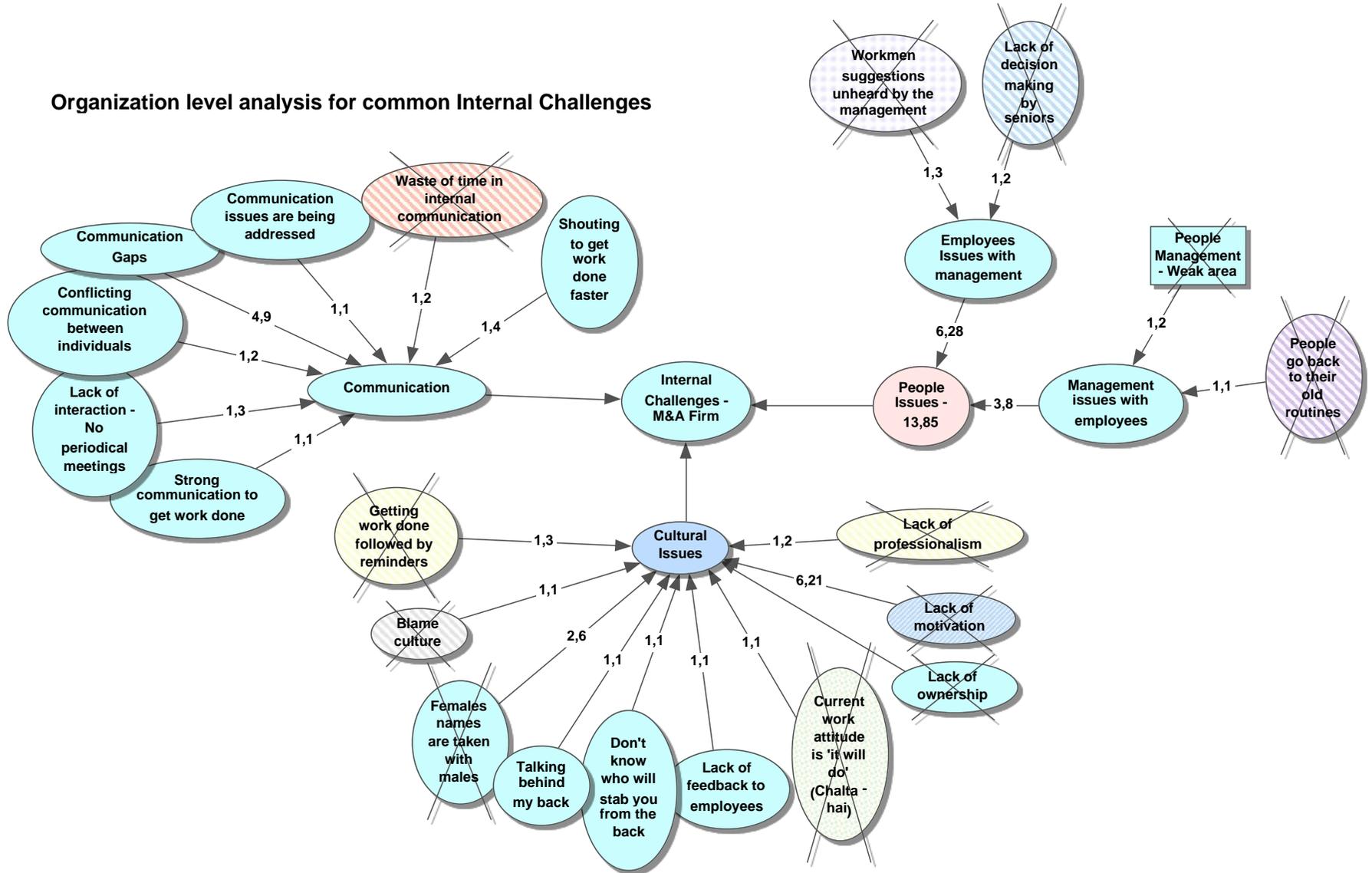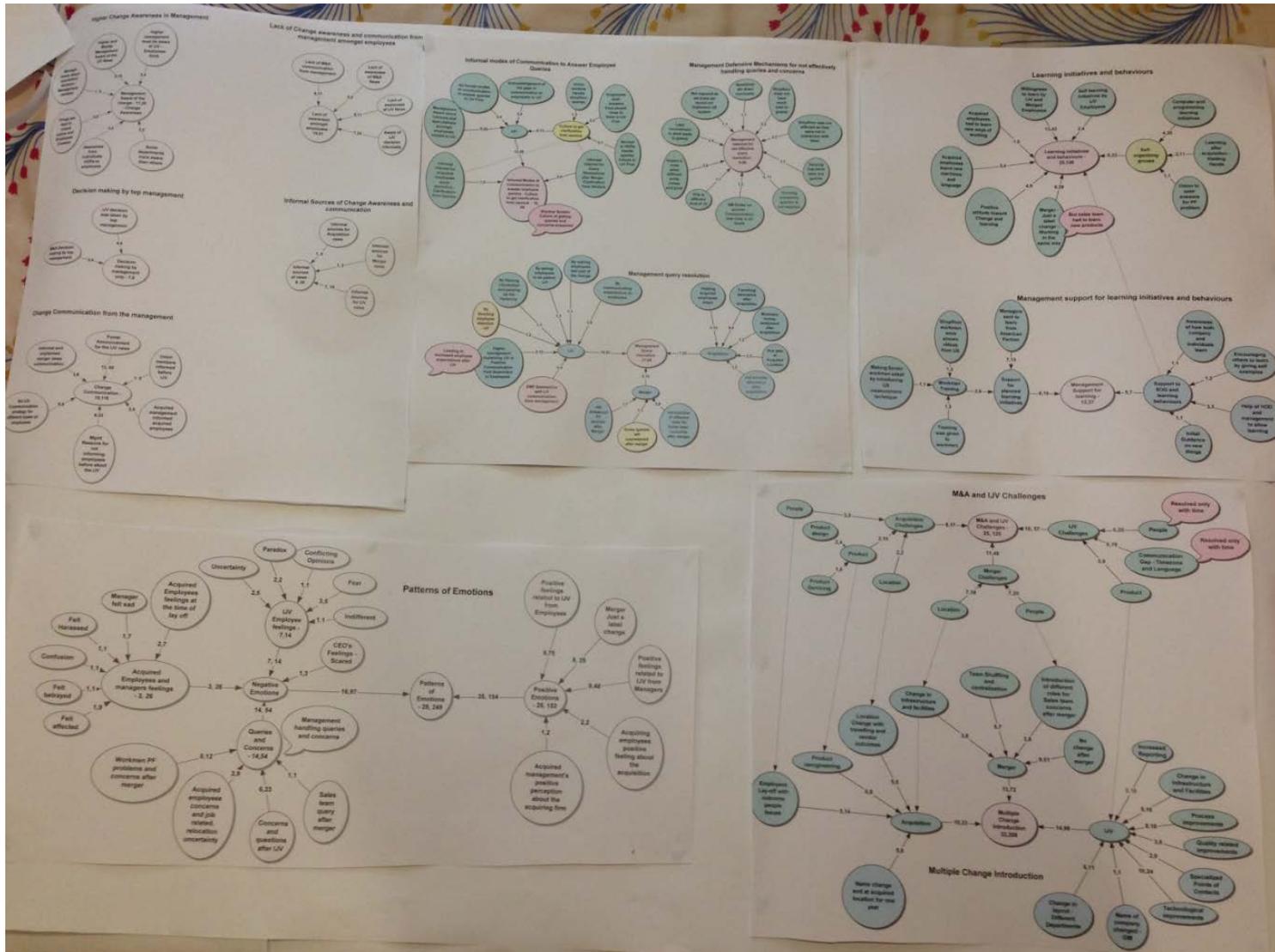
Appendix 6 - Suggestions
Appendix 6.1 - M&A Firm – Manufacturing Suggestions

<u>Design Department Suggestions</u>

Employees and managers both believe that strengthening of design department is very important in context of manufacturing. As commented by one of the managers, "*We expect our design department to be so strong so that they will answer every question.*" *(A_711_0021, Deputy Manager – M&A Firm)*. Other suggestions are that the design team should focus on core competency and overheads should be split up and process should be decentralized as quoted by one of the managers - *"It should not be centralized it should be decentralized so that the design engineer he will focus only on his core competency." (A_711_0017, Senior Manager – M&A Firm)*. The product range should be divided to increase ownership within the design department. The deputy general manager believes manpower should be used only for critical and important jobs and small jobs should be outsourced. This would increase turnover as machines would move faster during assembly. Another suggestion highlights that standardized design and machine orders should be taken rather than customized machines. These machines would be made faster and save cost. One of the newly joined general managers believes that the manufacturing division should enter into a joint venture, in order to obtain external support and technical help for the product development. This would help in building machines, rather than the trial and error approach which the firm has adopted at the moment. He believes that the individuals are saturated and growth is getting restricted. External support would reduce uncertainty, provide design support and help product development.

<u>Servicing Department Suggestions</u>

It was highlighted that manufacturing division does not have a service department of its own. There is dependence on service engineers from different business divisions who have a different skill set and hence, are not efficient in servicing manufactured machines. Hence, the need for service department was highlighted.

<u>Project and Planning Suggestions</u>

Some managers highlighted a lack of production planning and control.

"There is no planning and no project manager here. At least they should have a planning department where they can give guidance to all or lead them but that planning department is missing in Organization ABC which everybody is asking for. You require a centre person so that we don't have to refer to one another. We just contact him and he coordinates important decisions and lead the group." (A_711_0021, Deputy Manager – M&A Firm)

These managers believe a project approach would be better than a product approach in packaging division. They mentioned a requirement of a central person or a group of few people who should be made responsible for a project. They would also handle all the communication and follow up with various departments internally and with the customer and vendors externally for seamless product delivery. Someone is needed who can manage all the co-ordination required to deliver a product and lead the group. Hence, there is a requirement for a project department led by a project manager, as highlighted by a few of the managers. Moreover, it is believed time should be balanced at each stage of the product cycle. Each stage should be given appropriate time to carry out its operations. Moreover, one of the general managers highlighted that ' the one roof solution' concept based on the merger that had taken place in the past needs to rebranded and reemphasized.

Appendix 6.2 - IJV Firm – Product and Process-related Suggestions

Production Suggestion to Reduce Product Rejections

Employees think that management should be strict about rejections. The number of rejections should be controlled in the production process, as they lead to delayed product delivery. Both managers and employees wish for the dispatch delivery issue to be solved. They also believe that customers should be given a realistic estimate of the exact time that will be taken to deliver the product, rather than making over-ambitious commitments.

Union leader feels that management should speak with people who are actually doing the work in order to gain specific ideas about reducing rejections. Everyone

right from management to helper staff should be approached. They suggest that to reduce rejections, a general meeting could be conducted involving everyone from management to helper staff. This could help bring ideas about why rejections are taking place and how they can be reduced. One of the employees recommends monthly meeting,

> *"So if once a month a meeting is conducted and problems are asked and solved then then rejections will be reduced to a great extent. For example, people may ask, 'I don't understand this angle, please explain'. If a supervisor conducts one meeting then it is enough. A 10 minute meeting is enough to just ask if someone has any errors and needs help with the existing job cart. If this is thought then rejections will reduce. These are small solutions but they are not happening now." (E_711_0045, Executive – IJV Firm)*

Quality department employees highlighted they should have a permanent head of the department and the long overdue IPQC system should be implemented in order to save time, improve quality and reduce rejections. Employees or workers making mistakes should be given a chance to rectify their mistakes themselves. This would increase their confidence and help them to not repeat the same mistakes. It is believed that organization needs to work on *'customer delight' (E_711_0036, Senior Manager – IJV Firm)* aspect focus on exceeding customer expectations.

Knowledge and Training of Workers

With regard to lack of transparency in the organization, one manager believes that workers should be given training and given full information about their job. The product is extremely sensitive and a high level of accuracy is required; hence, training is a must to make workers understand what they are making and how to handle these products. A senior manager stated that a lot of human intervention is removed from the machines and machines are adjusted to the tolerance required to reduce errors. However, workers require necessary training to give better output. As commented by one of the shop floor employees,

> *"So for company growth I feel they should give more focus on shop floor, they can decide about technical accuracy because they have more knowledge and*

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expertise, but only if workers are technically sound then they can give the perfect product and if our products are perfect then we will get more orders from the market and automatically the company will get more currency and company's reputation will grow. The sales and marketing guys can bring in any amount of market but if the products are not perfect then how can we grow?" (E_711_0041, Shop floor Assistant - IJV Firm)

He stated important aspects, such as that management should teach new technologies to workers so that they get accustomed to the new ideas and new techniques. The knowledge of senior workers should be combined with the knowledge of new machines. This will benefit new recruits, as they would get to learn all this from the existing workers. This would also benefit the company. It was highlighted that workers should be updated with the growth of the company in aspects, such as what is being produced, how many products are rejected and what are the losses. It needs to be explained to them how rejections lead to a loss for the company - as material, electricity, labour, machine time, and everyone's time is wasted and what cost it incurs and they should be urged to make every product correctly. A quality executive extended the same thought, arguing that the first reason for rejection is the weak knowledge of the operator. Workers should know how to read the drawing, understand the job cart, have knowledge of the programme on the machine and know how to read parameters. Once this is known, then rejections would decrease. He also thought that the second reason for high rejections is overconfidence and over-reliance on the machines. Previously, when machines were manual, workers concentrated on correct measurements but now they are overconfident about the machine. He thought workers should show 100% involvement and focus on their work and should be passionate about learning. Other employees wanted to be given more time to learn new technology from the joint venture firm or they should be provided with external trainers who would train them quickly. They believed time left after finishing work should be utilized to learn something new.

Communication Suggestions

To avert the communication gap, a weekly meeting and direct communication access with the American organization were suggested. One of the production

managers felt that they should have access to speak with the American firm. At least the assistant manager level i.e. second line of management should be given direct communication access. Meetings should be conducted between the members who are part of the value chain in delivering a product to the customer. Suggestion boxes should be placed for employees to provide anonymous suggestions and seniors should read them and implement the required changes.

Suggestions to Reduce Errors

Employees suggested that there should be multiple checkpoints/checklist everywhere and it should be monitored that these checkpoints are followed. Sales co-ordinators should perform compulsory checks so that all the required parameters are met. Managers suggest that orders should not be taken without complete information. Employees expect to receive complete information from others in order to save their time and effort invested in rework.