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Entropy in Postmerger and Acquisition Integration from an Information Technology Perspective

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Walden University

COLLEGE OF MANAGEMENT AND TECHNOLOGY

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Gloria Williams

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Walden University
2012

Abstract

Entropy in Postmerger and Acquisition Integration from an Information Technology
Perspective

by

Gloria S. Williams

MS, Bethel University, 2009

BS, Middle Tennessee State University, 1975

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Business Administration

Walden University

December 2012

Abstract

Mergers and acquisitions have historically experienced failure rates from 50% to more than 80%. Successful integration of information technology (IT) systems can be the difference between postmerger success or failure. The purpose of this phenomenological study was to explore the entropy phenomenon during postmerger IT integration. To that end, a purposive sample of 14 midlevel and first-line managers in a manufacturing environment was interviewed to understand how the negative effects of entropy affect the ultimate success of the IT integration process. Using the theoretical framework of the process school of thought, interview data were iteratively examined by using keywords, phrases, and concepts; coded into groups and themes; and analyzed to yield results. The data indicated that negative entropy factors were associated with the postmerger integration process. Participants' perception of loss emerged as a central theme for employees from both sides of the merger. A majority of the participants perceived entropy in terms of loss similar to the loss of a family member. The findings may contribute to social change by providing a framework for merger integration managers to mitigate the negative effects of entropy and facilitate a successful IT integration outcome. Successful mergers increase shareholder value and customer satisfaction, which strengthen the company's financial condition. A financially stable company will be in a better position to provide a positive contribution to the surrounding community, offer stable employment opportunities, and sponsor corporate social responsibility programs.

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Dedication

This study is dedicated to my wonderful husband and best friend, Cecil, whose patience and love are never ending. I would also like to dedicate this study to my father, Alfred H. Sanders, who was so proud of me but sadly lost his battle with cancer before this study was completed.

Acknowledgments

Over the past 3 years, I have been encouraged and supported by my family, friends, and Walden staff. This journey has been rewarding and challenging. For the times that I just felt too inept to complete this study, I thank my husband Cecil for always being there to encourage me and remind me that I could. I would like to thank my committee members Dr. Roger Mayer, Dr. Michael Ewald, and Dr. Walter Mccollum for their insights and support. I would especially like to thank Dr. Roger Mayer for his unending support, inspiration, and wisdom. Dr. Mayer was available at any time of the day or night when help was needed. I would also like to thank Dr. Michael Ewald for his support, encouragement, and especially for the APA 6 mouse pad that became my best friend during this journey. Without the support, prayers, and assistance of my friends and associates, this achievement would not be possible. To the individuals who were study participants, I am truly grateful.

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Section 1: Foundation of the Study

Background of the Problem

There has been extensive general research related to postmerger and postacquisition integrations. However, there is very little existing research on integration factors and their influence on the disruption and sense of disorder experienced during the integration process. Fish (2007) conducted a qualitative, hermeneutic phenomenological study that explored the concept of entropy applied to postmerger and postacquisition integrations through the lived experiences of senior managers and executives of U.S.-based, service-oriented corporations (Fish, 2007). The themes identified in Fish's research "suggested an underlying negative presence of the entropy phenomenon during integration in terms of five interrelated entropy factors with an order of precedence: (a) leadership, (b) communication, (c) organizational culture, (d) people, and (e) strategy" (p. iii). Fish described the interrelated factors as the *entropy model* of postmerger and postacquisition integration and recommended future research from different perspectives to expand the body of knowledge. One such perspective is the influence of the entropy factors on the post deal integration of information technology (IT) systems of manufacturing-oriented corporations. A 2007 study by PricewaterhouseCoopers showed the IT function is subject to some form of integration effort in 89% of merger and acquisition cases (Polites & Karahanna, 2012). I sought to advance Fish's 2007 study by considering the perceptions of midlevel and first-line managers, rather than senior or executive management with regard to integration factors that lead to entropy during the postmerger process. Higher management may create problems during the change process

by not taking into consideration the voice of middle managers (Fronda & Moriceau, 2008). By targeting middle and line-level managers as participants, the study results expanded the knowledge gained by Fish's (2007) study.

Problem Statement

The integration of IT systems can be the difference between postmerger success and failure (Banal-Estañol & Seldeslachts, 2011; Carlsson, Henningsson, Hrastinski, & Keller, 2011; Dao, 2010; Heimeriks, Schijven, & Gates, 2012). Integrating information technology systems is potentially one of the most complex and expensive integration processes after an acquisition (Alaranta & Henningsson, 2008; Dao, 2010; Heimeriks et al., 2012). A general problem exists with the high failure rate of mergers and acquisitions (M&As) in corporate America (Banal-Estañol & Seldeslachts, 2011; Clayton, 2010; Fish, 2007; Wan & Yiu, 2009). M&As have historically experienced poor return on investment, with failure rates from 50% to more than 80% (Carlsson et al., 2011; Connell, 2010; Fish, 2007). The specific problem addressed by this study was whether or not integration of information technology solutions of merged business units created entropic issues that form obstacles to the integration process. M&As are considered successful when the integrated organization increases shareholder value faster than the two organizations operated separately (Guangming, 2010). Incompatible technology and software solutions, lack of required skills, and divergent IT philosophies present challenges to the merger process and can subvert efforts to combine the companies into a cohesive business unit (Cording, Christmann, & King, 2008).

Purpose Statement

The purpose of the qualitative, hermeneutic phenomenological study was to extend Fish's (2007) entropic model of postmerger and postacquisition integration by examining the lived experiences of a purposive sample of midlevel and first-line managers who have survived integration of U.S. manufacturing organizations. The focus was to explore participants' perceptions of the factors of Fish's (2007) entropic model during postmerger and postacquisition IT integration. Research targets included U.S. manufacturing companies employing more than 500 that have completed the IT solutions integration process. I extended the knowledge of Fish's entropy model as well as identified best practices that facilitate positive integration outcomes.

The significance of this research study was introducing a new paradigm of change management applicable to postacquisition IT integration. The goal was to identify, understand, and reduce entropy between the leadership, middle management, and key employees during mergers. The study results could contribute to positive social change and impact business practice in a positive way. Results of the study identified best practices and factors that negatively affect achieving the organizational goals of integrating IT solutions. The study results may provide managers with real-world solutions to facilitate integration of computer platforms, databases, software, and personnel. Identification of best management practices might help mitigate many of the issues faced when cultures and technologies are integrated and provide businesses anticipating an acquisition with insight into the effects of entropy factors on the ultimate success of the merger process.

Nature of the Study

A qualitative study design was appropriate for data collection, analysis, and interpretation using observation of verbal actions and behavior of participants (Creswell, 2008; Sinkovics, Penz, & Ghauri, 2008). Qualitative research methods use multiple forms of data such as interviews, behavioral observation, and documents. A phenomenological approach is the best choice for this study in which I performed interviews and used observations to gather data to analyze a particular phenomenon (Creswell, 2008; Sinkovics et al., 2008).

A number of factors pertain to successfully integrating business units following an M&A, such as company culture, employee retention decisions, cross-border issues, level of teamwork, openness to change, and others (Chakravorty, 2012; Katz & Miller, 2012). A qualitative research model provided the best method for examining these diverse factors. The strength of qualitative research is in uncovering the significant variables involved in a complex phenomenon (Creswell, 2008; Gelo, Braakmann, & Benetka et al., 2008; Pratt, 2009). Qualitative research is a valuable tool for uncovering causal factors of variables in order to explain the underlying phenomenon. Qualitative research allows the researcher to separate the factors of a complex phenomenon and determine their effect on the construct (Alasuutari, 2010; Creswell, 2008; Pratt, 2009).

A qualitative approach was appropriate for the study because the intent is not the measurement of variables or the re-examination of existing theories. Within the qualitative tradition, I rejected several designs for this study. Grounded theory, which involves generating a theory behind experiences and behaviors, was not appropriate for

this study because the study's purpose was to examine the perceptions of the effects of the actions taken with no attempt to assert a theory as to why the experiences and behaviors take place. The research topic was not appropriate for an ethnographic study because it did not focus on a population to discover the purpose behind common behavior patterns. A phenomenological research design was appropriate for the study to describe the structures of experiences revealed through interviews without referring to theory, deductions, or assumptions (Scheibelhofer, 2008; Weed, 2008). The philosophical investigation and description of experiences offered accounts of the experiences as the interviewees perceived them to be (Scheibelhofer, 2008; Weed, 2008). I selected a phenomenological approach for the study in order to provide an exploratory research design framework (Glaser & Strauss, 1967).

Research Questions

Overarching Questions

The focus of this study was to seek a better understanding of entropy in postmerger and postacquisition integration of information systems solutions by the examination and interpretation of the lived experiences of midlevel and first-line managerial merger survivors of U.S. manufacturing organizations. To achieve this goal, I used Fish's (2007) original research questions. The central research question for this study was: *What is the nature of entropy in postmerger and postacquisition integrations?* To achieve a deeper understanding of the entropy phenomenon, additional research sub-questions included:

1. What is the relationship between entropy and the five postmerger and postacquisition integration factors?
2. What entropic relationships exist among postmerger and postacquisition integration factors?
3. What other considerations or attributes comprise the entropy phenomenon in postmerger and postacquisition integrations?

Interview Questions

The interview questions for this study included the 17 questions in Fish's study. I did not modify Fish's interview instrument to ensure correlations could be drawn between the reactions of service organizations' upper-level management in the original study and manufacturing's midlevel and first-line reactions to the entropic phenomenon in this study. Interview Questions 1 and 2 addressed the main research question. Interview Questions 11 through 13 addressed Research Sub-question 1. Interview Questions 3 through 8 addressed Research Sub-question 2. Interview Questions 9, 10, and 14 through 17 addressed Research Sub-question 3.

1. Please describe how you would characterize the nature of entropy during postmerger and postacquisition integration.
2. What specific experiences drive your views of entropy during postmerger and postacquisition integration? Please provide examples.
3. What is the relationship between communication and entropy during postmerger and postacquisition integration? Please provide examples.

4. What is the relationship between organizational culture and entropy during postmerger and postacquisition integration? Please provide examples.
5. What is the relationship between leadership and entropy during postmerger and postacquisition integration? Please provide examples.
6. What is the relationship between people and entropy during postmerger and postacquisition integration? Please provide examples.
7. What is the relationship between strategy and entropy during postmerger and postacquisition integration? Please provide examples.
8. When considering communication, organizational culture, leadership, people, and strategy, how would you describe the relationship among these factors in terms of entropy during postmerger and postacquisition integration? Why?
9. How would you characterize different states or levels of entropy during postmerger and postacquisition integration?
10. What specific experiences drive your views of states or levels of entropy during postmerger and postacquisition integration? Please provide examples.
11. When considering communication, organizational culture, leadership, people, and strategy, which of these factors contributes the most to increasing entropy during postmerger and postacquisition integration? Why?
12. When considering communication, organizational culture, leadership, people, and strategy, which of these factors contributes the most to decreasing entropy during postmerger and postacquisition integration? Why?

13. When considering communication, organizational culture, leadership, people, and strategy, which of these factors contributes the most to inhibiting entropy during postmerger and postacquisition integration? Why?
14. How would you describe the negative impacts of entropy during postmerger and postacquisition integration? Please provide examples.
15. How would you describe the positive impacts of entropy during postmerger and postacquisition integration? Please provide examples.
16. In your experience, what other factors or considerations contribute to or impact entropy during postmerger and postacquisition integration? Why? Please provide examples.
17. Do you have any other thoughts regarding entropy and postmerger and postacquisition integrations?

Conceptual Framework

The M&A conceptual framework best suited for this study was the process school which blends the strategic and organizational schools of thought (Finkelstein & Cooper, 2010; Nogeste, 2010). Haspeslagh and Jemison (1993) stated adopting a process perspective moves the focus from a merger or acquisition's results to center on the transfer of the knowledge that will lead to a competitive advantage.

Process School

The process school comprises strategic and organizational behavior schools and focuses on the integration process as the main factor in the success or failure of a merger or acquisition (Finkelstein & Cooper, 2010; Haspeslagh & Jemison, 1993). The strategic

school's primary focus is on the impact M&As have on individual companies from the perspectives of strategic planning and performance (Finkelstein & Cooper, 2010; Nogeste, 2010). The organizational behavior school's primary focus is the impact of M&As on human capital (Finkelstein & Cooper, 2010; Shin, Taylor, & Seo, 2012). Advocates of the process school maintain that successful acquisitions achieve strategic and organizational fit. Proponents of the process school maintain that the decision making and integration processes can affect the acquisition's outcome (Finkelstein & Cooper, 2010; Haspeslagh & Jemison, 1993; Nogeste, 2010). Haspeslagh and Jemison (1993) stated that assuming the process perspective moves the focus from the result to the transfer of skills that can produce a competitive advantage.

A process-centric conceptual framework provided the perspective for this study. The five post integration factors (i.e., leadership, communication, culture, strategy, and people) identified by Fish (2007) as factors that significantly influence the entropy phenomenon experienced during the integration process exists in the strategic and organizational factors of the process school of thought. Figure 1 illustrates the application of the process school of thought to the conceptual framework used by this study. The figure graphically demonstrates the relationship of five integration factors and the entropy phenomenon of the postmerger, postacquisition processes and the strategic and organization aspects of the process school of thought.

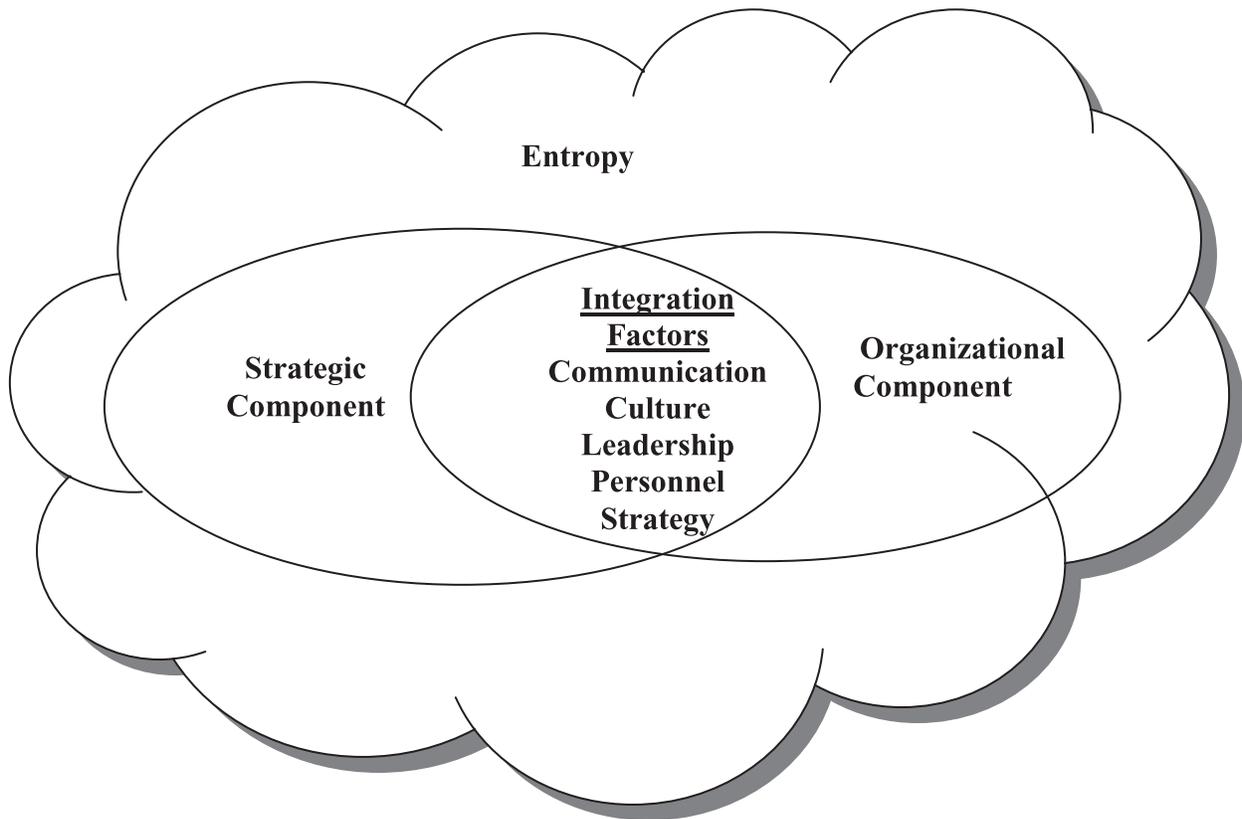


Figure 1. Process-centric conceptual framework. Reproduced from Fish, D. (2007). *A study of entropy in post-merger and post-acquisition integration* (Doctoral dissertation). Available from ABI/INFORM Global database. (UMI No.3253109). Reproduced with permission.

Larsson and Finkelstein (1999) developed a broader, integrated, process-centric conceptual framework that explored M&As using perspectives from strategic planning, economics, finance, organizational theory, and human resource management. The authors' conceptual framework was similar to the process-centric conceptual framework depicted in Figure 1 with the addition of finance and economic factors.

Haspeslagh and Jemison's (1993) process-centric conceptual framework was more appropriate for this study than Larsson and Finkelstein's (1999) framework. The focus of this study was on the human component of the postmerger and postacquisition process instead of financial and economic components. The financial and economic components do not necessarily affect Fish's entropy model.

Definition of Terms

Acquisition: When an organization legally and financially obtains another organization. The stocks of the acquired company are not surrendered (Rau & Stouraitis, 2011).

Communication: A bi-directional flow of information that facilitates understanding between the parties on both sides (Karim, Ameen, & Ayaz, 2011).

Corporate culture: The deep-seated beliefs and artifacts that guide an organization's human infrastructure (Sebesem, 2007).

Entropy: The measure of disorder, or randomness, in a closed but changing system (Michaelides, 2008).

Hermeneutics: A method for discovering a deeper understanding of social events (Fish, 2007).

Integration: The combination of two or more organizations or systems (Alaranta & Henningson, 2008).

Leadership: In this study, it refers to an organizational role that is responsible for guiding and shaping the company's vision or direction (Avey, Hughes, Norman, & Luthans, 2008).

Merger: Refers to an agreement to combine two organizations into a single company. The stocks of both companies are surrendered and new stock is issued in the newly formed company name (Karim et al., 2011).

Phenomenology: Refers to philosophy or study methodology that examines objects or events, as perceived by the participants (Creswell, 2008).

Phenomenon: An observable fact, occurrence, or event (Creswell, 2008).

Synergy: Refers to a situation where the output of the group is greater than the sum total of the output of the individuals. As the term is used in this study, it refers to the output of the merged business units compared to the individual outputs of the pre-merger organizations (Chatterjee, 2007).

Assumptions, Limitations, and Delimitations

Assumptions

This study relied on four assumptions. The first assumption was the terms *merger* and *acquisition* can be used interchangeably. Acquisitions specifically involves one company purchasing another company and assuming control of its operation, and merger involves two companies that are relatively equal in size deciding to combine to become one company that is singularly owned and operated. In reality, true mergers are rare, and the two terms are typically used interchangeably (Rau & Stouraitis, 2011), as was the case for this study.

The second assumption of the study was that a state of entropy is a normal phenomenon that occurs during the integration process and was a valid research phenomenon. Organizational change is a key aspect of the integration process following a merger; with organizational change comes employee stress and the resulting disorder (Barzantny, 2007; Bellou, 2007; Farjoun, 2010; Guerrero, 2008; Marks, 2007; Marks & Mirvis, 2012; Shin et al., 2012; Summers, Humphrey, & Ferris, 2012).

The third assumption was the appropriateness of entropy as a central phenomenon, which refers to a conscious awareness of an abstract concept (Fish, 2007). Entropy is a concept that describes the essence of disorder in an environment (Handscombe & Patterson, 2004), and in this context, entropy fits the description of a phenomenon.

The fourth assumption was that the participants have the ability to understand the intent of the research and to understand the concept of entropy. A related assumption was that the study participants possessed sufficiently varied lived experiences of integration to allow for depth and richness in the study.

Limitations

There were four likely limitations of the study. The scope of the study necessarily included an unrepresentative sample size due to the number of businesses involved in M&As in the United States and the qualitative method I used. The time and resources available for the study limited participation to an unrepresentative number of businesses and employees. Because the study was limited, the participants were from the manufacturing field in order to maintain a homogeneous member pool and to expand

Fish's (2007) study that was limited to upper management, service organization participants. This delimitation caused the study to have limited generalization to the manufacturing industry. The size and makeup of the sample group was another potential limitation of the proposed study. The study was limited to postmerger survivors whose jobs required interaction with the information technology system. Other stakeholders had experiences that were germane to the primary phenomenon. The third limitation was that of qualitative data analysis. The analysis of qualitative data was limited by the capabilities of the software package used. I discuss the limitations of the software considered in the results section. The fourth limitation of the study was researcher bias and data error. To mitigate the limitations caused by researcher bias and data error, I recorded and transcribed the interviews verbatim instead of summarizing or interpreting them.

Delimitations

The scope of this study was limited to U.S.-based M&As of manufacturing oriented companies having more than 500 employees. The study targets were limited to U.S. mergers due to the inevitability of entropy as a result of cultural difference in international mergers. The study was further limited in scope by focusing on the experiences of midlevel and first-line managers in an effort to extend Fish's (2007) study of entropy in postmerger, postacquisition corporations.

Significance of the Study

Reduction of Gaps

The significance of this study was to expand research on the entropy model defined in Fish's study. The results also expanded the knowledge available concerning change management applicable to postmerger and postacquisition information technology integration. The goal was to identify, understand, and reduce disruption and disorder between the leadership, middle management, and key employees during postmerger and postacquisition integration of information technology solutions. Achieving this goal may alleviate problems that negatively contribute to the effective integration of information technology solutions of merged businesses. The study results identify best practices and factors that negatively affect achieving the organizational goals of integrating information technology solutions. The results of the study may provide managers with real-world solutions to facilitate integration of computer platforms, databases, software, and personnel. Identification of best management practices may help mitigate many of the issues faced when cultures and technologies are integrated.

Implications for Social Change

M&As are among the most common corporate growth strategies (Weber & Drori, 2011). Borchert and Cardozo (2010) referred to mergers as creative destruction and creative combination. Although many companies downsized after September 11, 2001, M&A activity has been on the increase for the last several years. It is likely that individuals at all levels of an organization experience the effects of their organization's acquisition by another organization and the stress and disorder that accompany the

integration process (Moffat & McLean, 2010; Shin et al., 2012). The success of a merger depends upon a process of mutual adjustments and acculturation (Marks & Mirvis, 2011). Identifying best practices for leaders of both organizations during the integration process potentially will reduce the intensity and length of the disorder and improve the job satisfaction level of merger survivors. In addition, creating a blended organizational culture will insure the sustainability of the organization (Ellis, Reus, & Lamont, 2009; Hough, Haines, & Giacomo, 2007; Moffat & McLean, 2010). A stable organization will be in a position to provide jobs and fund programs for the enrichment of employees and the communities in which they have a physical presence.

A Review of the Professional and Academic Literature

In the first section, this review provides an historical overview of M&A with various perspectives and viewpoints. The second section explores postmerger and postacquisition integration from various perspectives. The third section examines criticisms of M&As. The fourth section discusses gaps in the literature. The literature review concludes with a summary. Section 2 consists of another literature review related to postmerger and postacquisition integration factors.

Documentation

Sources for this literature review included peer-reviewed articles, books, and dissertations. The Internet provided a valuable resource to find literature appropriate to scholarly research. The search for articles was accomplished using keyword searches such as *M&A*, *leadership*, *corporate culture*, *organizational change*, and others. The literature search process for the study yielded 127 sources grouped into the following

categories: (113) scholarly or peer-reviewed articles, (10) reference books, and (4) dissertations. Publication dates ranged between 2007 and 2012 for 94% of the literature used in the study. The foundational sources of reference material for the research originated from university libraries, the EBSCOhost article database, the ProQuest article database, and the ProQuest Dissertations and Theses database.

Mergers and Acquisitions

The three basic ways companies can grow their business are by gaining market share, operating in fast-growing markets, and merging with or acquiring another company (Ji-Yub, Jerayr, & Finkelstein, 2011; Vancea, 2011). Through M&As, two companies can combine their resources in order to create a more efficient business model, leverage capabilities, increase market share, level the playing field, or gain advantage over a difficult competitor (Bahadir, Bharadwaj, & Srivastava, 2008; Heimeriks et al., 2012; Nagurney, Woolley, & Qiang, 2010; Schriber, 2012). Ranft and Marsh (2008) stated the acquisition of knowledge can be the only motive for the acquisition. Changing forces in the world economy have been a catalyst for M&As (Ahern & Weston, 2007). These changing forces include rapid technological change, reduction in communication and transportation costs, growing international markets, increased competition, new emerging industries, and deregulation in some industries (Ahern & Weston, 2007).

Historical Overview of Mergers and Acquisitions

Merger and acquisition waves. M&As have occurred in a series of six waves, beginning in 1897 (Chidambaran, Shangguan, & Vasudevan, 2010; Gaughan, 2010;

Smythe, 2010). Some analysts pointed to an upward turn in M&As in 2009 as a signal for the beginning of a seventh M&A wave (Netter, Stegemoller, & Wintoki, 2011).

Gaughan (2010) noted that the first merger wave spanned the years 1897 to 1904. This wave included manufacturing companies with a monopoly over their lines of production, such as railroads and electricity. The first wave of M&As involved combining companies with similar products (horizontal merger) in an effort to increase efficiency and reduce manufacturing costs (Gaughan, 2010; Karim et al., 2011). The Sherman Antitrust Act of 1890 created a business environment that was not favorable to the horizontal mergers that were typical during the first merger wave (Gaughan, 2010). A majority of these mergers failed to achieve their goals due to an economic slowdown in 1903 and the stock market crash in 1904 (Gaughan, 2010).

The second merger wave occurred from 1916 to 1929 during the economic boom which followed the end of World War I. Investment banks facilitated the second merger wave (Gaughan, 2010). This wave included industries that were producers of primary metals, chemicals, petroleum products, food products, and transportation equipment (Gaughan, 2010). Technological developments such as railroads and motor vehicles provided the necessary infrastructure for the mainly vertical mergers that occurred during the second wave (Gaughan, 2010). Government policies established in the 1920s created a business environment conducive to mergers (Gaughan, 2010). The second wave ended abruptly with the stock market crash in 1929 and the beginning of the Great Depression (Gaughan, 2010).

The third merger wave consisted mainly of conglomerate mergers from 1965 to 1969 (Gaughan, 2010). The nature of this wave was the result of strict enforcement of the antitrust laws, high stock prices, and high interest rates (Gaughan, 2010). The third wave ended due to poor conglomerate performance and the conglomerate splitting policy adopted by the attorney general in 1968 (Gaughan, 2010).

The fourth merger wave occurred from 1981 to 1989 as an outcome of the deregulation of industries during the Carter administration and strengthened by expanded deregulation and relaxation of antitrust policies during the Reagan administration (Gaughan, 2010). The fourth merger wave is characterized as the period of mega mergers, which consisted of hostile takeovers by foreign entities and mergers between big oil companies, pharmaceutical companies, airline companies, and banking organizations (Gaughan, 2010). A number of factors contributed to the end of the fourth wave including the Gulf War, financial institution reform, and the enactment of antitakeover laws (Gaughan, 2010).

The fifth merger wave occurred from 1992 to 2000. Marks and Mirvis (2011) described this wave as a tsunami. This wave was a result of rapid technological growth and readily available financing (Gaughan, 2010). The wave consisted of mergers within the banking and telecommunications industries (Gaughan, 2010). The fifth merger wave ended when the dot-com and stock market bubble burst along with the enactment of the Sarbanes-Oxley Act, which provided strict rules for corporate governance (Gaughan, 2010).

The sixth merger wave occurred from 2004 to 2007. It consisted mainly of global mergers (Marks & Mirvis, 2011). During this wave, the big corporations got bigger through M&As (Marks & Mirvis, 2011). The most active industries were pharmaceuticals and technological (Marks & Mirvis, 2011). The sixth merger wave ended when the housing bubble burst, which resulted in a downturn in the U.S. and global economies (Marks & Mirvis, 2011).

Merger and acquisition classifications. Fish (2007) identified three distinct approaches for the classification of M&As. The three approaches included a historical perspective, a motivational perspective, and a performance perspective (Fish, 2007). The historical perspective aligns with the M&A waves; the motivational perspective concentrates on the motive for entering into a merger or an acquisition; and the performance perspective concentrates on the increased value created from the M&A (Alaranta & Henningson, 2008; Fish, 2007; Zollo & Meier, 2008).

Classifications from a historical perspective. The six merger waves occurring from 1895 to 2010 each align into categories representing the relationships between the combining business entities (Graughan, 2011). The first merger wave included manufacturing companies with similar products (horizontal merger) in an effort to increase efficiency and reduce manufacturing costs (Gaughan, 2010). The second merger wave consisted mainly of vertical mergers (Gaughan, 2010). The third merger wave consisted mainly of diversified conglomerate mergers (Gaughan, 2010). The fourth merger wave consisted of hostile takeovers by foreign entities and mergers between big oil companies, pharmaceutical companies, airline companies, and banking organizations

(Gaughan, 2010). The fifth merger wave consisted of mergers within the banking and telecommunications industries (Gaughan, 2010). The sixth merger wave consisted mainly of global mergers (Gaughan, 2010). Rapid technology growth and trade liberalization have facilitated M&As on a global level (Coourdacier, De Santis, & Aviat, 2009).

Classifications from a motivational perspective. There are four motivational categories in which mergers and acquisitions are classified: rescues, collaborations, contested situations, and raids. Rescue M&As offered relief for financially distressed companies and companies threatened by raiders (Fish, 2007). In either situation, the acquired company perceived the acquiring company as a rescuer from an almost certain negative outcome (Fish, 2007). The recent downturn in the economy has resulted in the increase of rescue mergers in the especially hard hit-banking sector. In this situation, there was less resistance to change. The risk of failure was greater due to the financially unstable position of the acquisition (Fish, 2007). Bosecke offered a seven-theory based motivation approach for classification of M&As. These seven theories were efficiency theory, monopoly theory, raider theory, valuation theory, empire building theory, process theory, and disturbance theory (Hellgren, Löwstedt, & Werr, 2011).

Efficiency theory deals with achieving synergy in three different business aspects: financial, operational, and managerial (Hellgren et al., 2011). Monopoly theory stresses gaining market power in three ways: product cross-subsidies, competition elimination, and market deterrence (Hellgren et al., 2011). Raider theory centers on gaining control of a company by paying a premium for its stock until the acquiring entity

became the controlling shareholder (Hellgren et al., 2011). Valuation theory holds that an acquiring entity considered the acquired company undervalued or estimated that the synergy achieved as a result of the M&A would be more than the individual companies. Uncertainty and risk play a major role in this type of merger or acquisition (Hellgren et al., 2011). Empire-building theory describes situations in which managers pursued M&As exclusively to further their personal interests rather than stakeholders' interests (Hellgren et al., 2011). The process theory describes strategic decision-making using three influences: the ability to process available information, the existence of familiar business routines, and politics (Hellgren et al., 2011; Polites & Karahanna, 2012). Disturbance theory holds that M&A activity results from economic upheavals such as merger waves (Hellgren et al., 2011).

Classifications from a performance perspective. Marks and Mirvis (2011) described an approach for classifying M&As based on five outcome categories. The *disaster* classification groups mergers initiated from unrealistic expectations, overestimated value, nonexistent synergies, and unexpected transition costs. The *lowest common denominator* classification includes mergers in cases of underperformance that were not as extreme as disasters (Marks & Mirvis, 2011). The *sum of the parts* classification occurs when businesses that lack vision and proper planning have a tendency to break even but fall short of their potential (Marks & Mirvis, 2011). The *best of both* classification demonstrates good planning that facilitates the selection of the best features of both organizations during the integration process, resulting in a stronger business enterprise than each company separately (Marks & Mirvis, 2011). The

breakthrough combinations classification provides the best results for M&As by creating a combined organization with the best possible organizational model rather than adopting the organizational model from either existing organization (Marks & Mirvis, 2011).

Collaborative and Contested Mergers

The majority of M&As are collaborative (Fish, 2007). In this type of merger, both parties actively seek the joined business arrangement, and mutual respect exists (Fish, 2007). The risk for failure is moderate to low; however, resistance to change is slightly higher than in the rescue mergers (Fish, 2007). In contested M&As, there is a moderate risk factor and a clear pattern of resistance results from multiple bidders with differing merger expectations (Fish, 2007). In raids, hostility and resistance to change are significant because of the acquired company's strong defensive stance and the high risk factor (Fish, 2007).

Rational for Mergers and Acquisitions

There are five rationales for initiating M&As. These five rationales were to resolve overcapacity, consolidate geographically separated competitors, expand into new markets, deal with research and development underperformances, or to create a new industry (Carbonara & Caiazza, 2009; Zhao, 2009). Additional M&A motives include strategic corporate growth; technical, functional, or industry expansion; diversification, improved market share, or positioning; extraordinary value added investment, cost reductions, improved operational effectiveness and efficiency; and financial pressure (Nogeste, 2010; Smythe, 2010; Vancea, 2011; Zhao, 2009).

Postmerger and Postacquisition Integration

M&As are a crucial business process. Integration is usually not the primary focus when organizations decide to embark on an M&A strategy (Alaranta & Henningson, 2008; Anderson, 2012). Research indicated that poorly executed postmerger or postacquisition integration efforts were detrimental to the organization (Alaranta & Henningson, 2008; Anderson, 2012). Integration issues created long-term performance issues (Francis & Shapiro, 2012; Maiga & Jacobs, 2009) as well as slightly higher customer attrition, loss of skilled employees, slowdown of introduction of new products, loss of momentum in quality programs, higher operating costs, inability to fill key capability positions, and a reduction in brand identity (Fubini, Price, & Zollo, 2007). Some causes of integration issues included weak leadership, lack of planning, poor communication, insufficient resources, and vague process definitions (Fish, 2007; Fubini et al., 2007; Zeffane, Tipu, & Ryan, 2011). Alaranta and Henningson(2008) stated the success or failure of achieving good post deal performance depends on the post deal integration effort. The level of employee trust in the company's leaders is a crucial factor in the success of the integration effort (Ellis et al., 2009; Li, 2008; Van Wart, 2012).

Companies institute some form of business process improvement with one exception when the integration process follows a merger or acquisition (Alaranta & Henningson,2008). Each integration effort is viewed as a unique, standalone endeavor that must be completed in order to get back to business as usual. The predisposition to view integration as a unique event instead of a normal business process that can be reviewed and improved tends to perpetuate a cycle of repeated

blunders (Alaranta & Henningson,2008). Fish (2007) identified three perspectives to postmerger and postacquisition integration. These three approaches were a business environment view, a culture-centric view, and a value-centric view.

Business environment view. Sirower (2007) defined five different business environment view integration scenarios: stand-alone integration, stand-alone integration with strategy adjustments, operational integration, full integration, and reverse integration. Stand-alone integration occurs when the acquiring company and the acquired company operate as they had prior to the acquisition. Stand-alone integration with adjustments refers to making changes to the newly acquired company's strategy. Operational integration occurs when the acquired company adds to the acquiring company's business operations. Full integration occurs through complete amalgamation of the acquiring and acquired companies. Reverse integration occurs when the acquired company takes over the acquiring company's business (Sirower, 2007).

Culture-centric view. A shared company culture and identity is necessary for the success of the company strategy (Frensh, 2007; Saunders, Altinay, & Riordan, 2009). Vancea(2011) stated that creating a common culture is frequently the biggest trouble spot when two companies combine. Finkelstein and Cooper (2010) explained four categories in which to classify postmerger and postacquisition integration modes: (a) integration,(b) assimilation, (c) separation, and (d) deculturation. The integration mode combines the companies structurally, but each company maintains its own identity and culture. In the assimilation mode, the acquired company willingly accepts the culture and practices of the acquiring company. Overall, the acquired company is absorbed into the acquiring

company and ceases to exist as a cultural identity (Appelbaum, Gandell, Yortis, Proper, & Jobin, 2000). The separation mode integration is one in which there is no blending of the business entities. The acquired and the acquiring company remain independent with minimal cultural exchanges (Appelbaum et al., 2000; Frensch, 2007). The deculturation mode integration is one in which the acquired company does not accept the acquiring company's culture or behavior, and continues with its pre-merger or pre-acquisition culture and behavior. The result is alienation and confusion for both companies during the postmerger and postacquisition integration period (Frensch, 2007).

Value-centric view. Frensch (2007) described four value-centric postmerger and postacquisition integration approaches that combine organizational autonomy and strategic interdependence. These four approaches are holding, absorption, preservation, and symbiosis. The holding approach, which has no intent to generate value through integration, is appropriate when there is a low requirement for both organizational autonomy and strategic interdependence. In this approach, risk-related, financial, or management actions generate value. The absorption approach creates value by the acquiring company completely assimilating the acquired company. This approach is appropriate when there is a need for low organizational autonomy and high interdependence (Frensch, 2007). The preservation approach is used when the intention by the acquiring company is to maintain and protect acquired benefits. Quality, professionalism, and learning create value for the acquiring company. This approach is appropriate when a requirement exists for high organizational autonomy and low interdependence. The symbiotic approach is appropriate when there is a high need for

both organizational autonomy and strategic interdependence. Initially, the merging companies coexist and then move toward independence later. The companies mutually protect acquired benefits but cautiously manage company boundaries. Contradictory requirements create complexity and tension (Alaranta & Henningson, 2008; Frensch, 2007).

Information Technology Integration

IT is a function that should be normalized in order to support the strategy of the blended organization. The complexity and cost of integrating IT functions can be devastating to achieving long-term value (Dao, 2010). The integration of two or more merging organizations' IT functions can be one of its greatest assets or one of its worst nightmares (Dao, 2010). Systems integration for business strategy has the potential to make or break balance sheets (Dao, 2010).

Loppnow (2007) examined the factors that contributed to the accomplishment of a successful IT implementation. Two factors were significant to achieving a successful integration of two IT departments after a merger. Those two factors were the critical role of leadership and the importance of integrating operational strategies and IT strategies (Loppnow, 2007).

Cording et al.(2008) analyzed the success rates of M&As and the role of information systems technology in the merger process. The analysis indicated that information systems technology can be used to improve the chances of a successful merger. Cording et al. (2008) confirmed a correlation between information systems

technology performance and the achievement of company goals. One of the performance factors identified was the speed of integration.

Integration Factors

Fish (2007) identified five interrelated integration factors that generate entropy during a merger or acquisition: leadership, communication, organizational culture, people, and strategy. Misjudgments in these areas can lead to M&A failure.

Leadership. Marks (2007) indicated that leaders frequently use M&As to achieve an organization's strategic and financial goals. Leaders do not always recognize the difficulty of integrating the newly acquired organization. Organizational change can be a challenging process for leaders and organizational members, and plans need to allow time for employee adaptation to the new organizational structure. There is a tendency for leaders to underestimate the effort required to plan for the integration effort, especially the attention required for the human element (Benton & Austin, 2010). Failure to recognize the need for a well thought out integration plan resulted in distractions, which reduce organizational efficiency (Benton & Austin, 2010; Marks, 2007; Saunders et al., 2009; Summers et al., 2012).

An organization's culture personifies what executive leadership defines as its priorities, the behavior it rewards and controls, and the role model and coaching actions it provides (Balmer, 2008). Steelman (2009) stated that corporate leadership influenced how employees perceived the organization's working environment following a merger. Employees in the postmerger environment perceived negative changes in their job performance and in their ability to meet the needs of customers, coworkers, and

stockholders (Steelman, 2009). Trust is one dimension that is required to complete a timely postmerger or postacquisition integration (Zeffane et al., 2011). Peus, Wesche, Streicher, Braun, and Frey (2012) stated that trust must be earned; however, leaders talk about having trust instead of building trust (Van Wart, 2012; Zeffane et al., 2011).

During the postmerger and postacquisition integration environment, positive organizational behavior is necessary to reduce the time required to complete the integration (Avey et al., 2008). Transformational leaders transform employees to higher levels of work performance through four dimensions: charisma, inspirational motivation, intellectual stimulation, and individualized consideration (Avey et al., 2008). A positive correlation is established between transformational leaders and positive employee performance (Avey et al., 2008; Vasilaki, 2011).

Middle managers are integral to the success of the merger transition and play a key role in facilitating a successful merger (Wooldridge, Schmid, & Floyd, 2008). Schriber (2012) stated that middle managers are responsible for driving integration tasks even though the middle managers may be suffering from low motivation, which reduces their ability to facilitate successful integration. Meyer and Altenborg (2008) stated that middle management has been identified as a group that is typically resistant to change. Including middle managers early in the integration planning could minimize resistance to change (Meyer & Altenborg, 2008). Klendauer and Deller (2009) recommend transparency during the integration process to avoid feelings of injustice among managers. Information should be shared as completely as practical and in a timely

manner. Avoiding a perception of injustice among managers will yield the best outcomes in a merger (Klendauer & Deller, 2009).

Communication. Clayton (2010) stated that timely and sufficient communication of information is vital to a successful M&A process. The study results revealed that management at times overlooked communicating information that could change employees' jobs and that good communication is a factor in successful M&As (Clayton, 2010). Appelbaum et al. (2000) also noted the most important factor in the entire M&A process is communication. More often than not, when news about an M&A appears, emotions range from fear and confusion to acceptance and excitement (Balle, 2008; Clark, Gioia, Ketchen, & Thomas, 2010). Clark et al. (2010) stated early communication that was honest, direct, and detailed a rational assessment of the challenges and opportunities the integration process offered reduced the risk of the fear, stress, and negativity that misunderstandings and rumors created. Marks and Mirvis(2011) emphasized effective and timely two-way communication along with staff involvement was crucial during the M&A process. Staff involvement in the decision-making process decreased the level of resistance to change and effective communication increased staff's ability to adopt a new culture and reduce stress levels (Clayton, 2010; Marks & Mirvis, 2012).

Tucker, Reiter, and Yingling (2007) suggested communication should extend beyond the staff members of the two merging companies. Antitrust regulations may be violated if customers are not involved in the merger review process (Tucker et al., 2007). Customer testimony can be used in a number of ways during the merger review. The

customer testimony can result in benefit or problems in the merger review. If the customer testimony is problematic for the merger, it is still important to include the testimony in order to avoid antitrust violations (Tucker et al., 2007). Customers are in a position to provide necessary information for a thorough merger analysis. This information includes industry features, product demand, and potential new market entrants. Tucker et al. (2007) warned about potential problems with customer testimony. Customers may lack information, provide biased testimony, and may not be representative of the market (Tucker et al. 2007).

Culture. Over the past 20 years, M&As have steadily increased (Alaranta & Henningson, 2008). The failure rate of these mergers is very high with cultural distance identified as one of the main reasons for the failures (Marks & Mirvis, 2011, 2012). Allen (2012) stated that although the technical integration is difficult, the integration of organizational culture and the reaction of the human element in postmerger integration is even more difficult. M&As with two or more distinct corporate cultures must be successfully integrated and fused in order to align the goals and strategy of the post integration organization and create value for the stakeholders (Alaranta & Henningson, 2008). Baughn (2009) examined the correlation between corporate culture and the perceived success of organizational mergers. Cultural disconnects were found to be a critical element in merger failures (Baughn, 2009). Disruption in the cultures of the merged businesses had a high probability of reducing stakeholder value. Weber, Belkin, and Tarba (2011) stated that a difference in organizational cultures inhibits productive communication between members of the two

organizations. Baughn (2009) concluded that organizations with similar cultures were more likely to have a successful merger. Culture clash is one of the most common causes for an M&A to fail to realize its full potential or achieve expected results (Badrtalei & Bates, 2007; Green & Colton, 2012; Marks & Mirvis, 2012). The authors concluded that prior acknowledgement of culture differences should be studied prior to beginning any integration initiative and should be approached with respect and understanding (Badrtalei & Bates, 2007; Marks & Mirvis, 2012; Saunders et al., 2009).

People. Chreim (2007) stated that employees' interpretation of the impact on their organizational identity could encourage or obstruct their acceptance of the changes needed to perform acquisition integration. Giessner, Ullrich, and van Dick (2011) stated that one of the key reasons for a merger's failure is the lack of consideration of the human element. The authors stated that more often than not more consideration is given to the legal and technological aspects of a merger by senior management (Giessner et al., 2011). Chreim (2007) stated that employees look for organizations that will allow self-enhancement and growth opportunities. Guerrero (2008) reiterated the importance of focusing on all aspects of the M&A process, including the human element. Often, the single most significant obstacle in integration efforts was the failure to obtain employee commitment (Briscoe & Tsai, 2011; Giessner et al., 2011; Shin et al., 2012). A common concern of employees during an M&A was security in terms of loss of jobs or closure of facilities (Khalid & Rehman, 2011). Jetten and Hutchison (2011) stated that a break in continuity, such as an M&A, negatively affected people both individually and as a collective by increasing resistance to change. Summers et al. (2012) revealed a flux in

coordination when core personnel changes are made, which led to a loss of communication.

M&As have often left employees feeling threatened and vulnerable (Bellou, 2007; Saunders et al., 2009). Siegel and Simons (2010) stated M&As have a traumatic effect on workers who lose their jobs as well as merger survivors. Harrison-Walker(2008) stated that merger survivors must progress through a multi-stage recovery process before their productivity improves. Studies have revealed five major issues of employees involved in an acquisition: loss of identity, lack of information and anxiety, obsession with survival, lost talent, and family repercussions (Guerrero, 2008). The employees of the acquired (dominated) organization reported more insecurity and unfavorable attitudes toward their jobs than did the employees of the acquiring (dominate) organization (Feiler & Camerer, 2010).

Harrison-Walker (2008) stated that low performance of merger survivors is often the cause for a decrease in shareholder value following an M&A. The author described the period following an M&A as a multistage psychological and emotional recovery period. Employees must progress through all stages before work productivity returns to a point where shareholder value is increased (Alaranta & Henningson, 2008; Harrison-Walker, 2008; Marks & Vansteenkiste, 2008; Siegel & Simons, 2010).

Giessner, Ullrich, and van Dick (2011b) stated that proper human resource management is vital to merger success and to reduce the negative effects on the employees. Understanding the employees' identification with the merged organization is vital; a higher level of identification with the merged organization results in less conflict

and an increase in motivation (Giessner et al., 2011b). Giessner et al. (2011b) stated that people identify themselves personally (personal identity) and through the organizations with which they belong (social identity). The organization with which they are a member of is a significant part of the self-concept (Bartels, Pruyn, & de Jong, 2009; Giessner et al., 2011b). Finkelstein and Cooper (2010) discussed the psychological impact of M&As on the individual. The risks in mergers affected individuals employed by the business units involved. M&As have come to be associated with low morale, job dissatisfaction, unproductive behavior, sabotage, theft, increased absenteeism, and higher accident rates (Finkelstein & Cooper, 2010). Even successful mergers between companies with similar cultures were stressful on the employees (Finkelstein & Cooper, 2010). Employees tended to hide doubts about the merger in order to fit in (Finkelstein & Cooper, 2010). Recognizing and addressing these misgivings helped improve employee performance and improved chances for a successful merger (Finkelstein & Cooper, 2010).

Retention of intellectual capital is vital for the successful operation of an organization (Allen, Bryant, & Vardaman, 2010; Norris, 2009). This point is especially true during the integration process following an M&A. Rowlett (2006) stated that approximately 25% of top-performing employees leave unexpectedly within 90 days of a major change such as an M&A. Rowlett (2006) concluded that the behaviors and traits of leaders who positively influenced key employee retention during an M&A fell into the five categories: communications, leadership, employee involvement, culture identification, and key employee identification (Rowlett, 2006).

Ozag (2006) examined the nature of the relationship between merger survivors' hope and trust. The analysis showed a positive and significant relationship between merger survivors' trust and their normative commitment to the organization, and merger survivors' perceptions of hope and their normative commitment. Although there was a significant relationship between merger survivors' hope and continuance commitment, there was no significant relationship between merger survivors' trust and continuance commitment (Ozag,2006). Based on these results, Ozag (2006) recommended that work on employee relations should take place in advance of M&As in order to facilitate a smooth transition.

Strategy. Some analysts advocated the integration of business functions and creation of common strategies as a means to create value (Ahern & Weston, 2007; Alaranta & Henningson, 2008; Chatterjee, 2007). M&As have historically experienced poor return on investment performance with failure rates up to 83% (Fish, 2007). One of the main reasons identified for the high-failure rates was inconsistencies in corporate strategy (Chatterjee, 2007; Fish, 2007; Fubini et al., 2007). Cording et al. (2008) identified a merger strategy as necessary in order to facilitate a successful transition. Cording et al. (2008) stated that strategy development should occur well in advance of the actual merger. It is advisable to start formulation of the merger strategy when due diligence is conducted (Francis & Shapiro, 2012). Key personnel should be involved from the start in order to get their buy-in to the integration effort (Bellou, 2007).

Criticisms of Mergers and Acquisitions

Hostile takeover acquisitions have received substantial criticism over the years (Goranova, Dharwadkar, & Brandes, 2010). Even friendly M&As have encountered criticism. Much of this criticism was a result of ethical and social concerns. A history of disappointing outcomes has left many people skeptical about the value of M&As. High profile M&A failures over the years left many shareholders with huge financial losses (Finkelstein & Cooper, 2010). It often took years to complete an M&A. In the meantime, the process usually disrupted company operations. While waiting for the deal to be completed, managers and employees often experienced feelings of insecurity and apprehension about the future. Reported instances of ethical misconduct doubled in companies undergoing M&As (Goranova et al., 2010; Martin, Johnson, & Cullen, 2009). Some critics of M&As were concerned about combining the power of the companies. The larger company had the potential power to influence the market, set prices, or affect consumers (McNamara, Haleblian, & Dykes, 2008). Integrating companies often created duplicate leadership roles and duties, resulting in conflicts and power struggles. These struggles created internal corporate turmoil. The associated disruption generally lasted until new territory lines were drawn or leadership roles resolved (Finkelstein & Cooper 2010). Some organizational managers believed that M&As were costly and ineffective as a business strategy. This line of thinking made it difficult to create support within the organization (Finkelstein & Cooper, 2010). M&As were often motivated by the desire to acquire technology possessed by the other organization. Complex businesses integrations

often failed, however, especially those involving high technology (Finkelstein & Cooper, 2010).

Qualitative Research Design

Minichiello and Kottler (2009) posited that most humans are born qualitative researchers. They explained that people are born with an innate curiosity to find out about the world around them and to discover how they fit into that world. Qualitative research is conducted daily in the course of normal personal activities. Minichiello and Kottler (2009) stated that this daily qualitative research takes place as people gather information to make decisions such as purchases, selecting service providers, or investigating subjects of interest.

There are many research designs that can be used when performing qualitative research such as case study, ethnography, narrative, grounded theory and phenomenology (Bryman, Becker, & Sempik, 2008; Creswell, 2008). Creswell (2008) described a case study as a research approach for which the researcher explores, in depth, a specific activity, process, event, or individuals over time, using a variety of collection procedures. Lee and Broderick (2007) described ethnography as a research approach focused on the description and interpretation of a particular cultural or social group's behavior. Creswell (2008) stated that narrative research is an approach in which the researcher studies the lives of individuals by asking the participants to tell stories about their lives. The stories are collected and retold in a chronological narrative format intertwining stories from the research's life (Creswell, 2008). A grounded theory design involves generating a theory behind experiences and behaviors. The philosophical investigation and description of

experiences without reference to the question of whether the experiences are objectively real does not produce empirical or theoretical observations or accounts. Instead, it offers accounts of the experiences as the interviewees perceived them to be (Scheibelhofer, 2008; Weed, 2008). Grounded theory originated with Glaser and Strauss in 1967. The term referred to a theory that is developed inductively from a quantity of data gathered through observation, conversation, and interviews (Lee & Broderick, 2007). The goal of grounded theory research was the creation of a new theory. This method uses numerous data collections and repeated theory refinement (Fish, 2007). Charmaz identified two grounded theory methodologies (Urquhart, Lehmann, & Myers, 2010). The constant comparison method coded and analyzed the data simultaneously. The theoretical sampling method collected, coded, and analyzed data, refining the theory using multiple intervals or cases (Urquhart et al., 2010).

Experts concurred that the phenomenological approach is appropriate for a study using interviews or observations to gather data to analyze a particular phenomenon (Creswell, 2008; Cassidy, Reynolds, Naylor, & Souza, 2011). The researcher then uses inductive data analysis in order to define patterns or themes. A phenomenological research design describes the structures of experiences revealed through interviews without referring to theory, deductions, or assumptions (Scheibelhofer, 2008; Weed, 2008). A phenomenological approach provides an exploratory research design framework (Urquhart et al., 2010). In phenomenological studies, the interview method of data collection is a proven effective data collection technique (Bystad, Fylkenses, Oleke, & Tumwine, 2007). Cassidy et al. (2011) described phenomenology as a research

approach where the goal of the researcher is to describe a particular phenomenon as accurately as possible from the perspectives of the people involved, without adding personal bias or preconceived outcome (Cassidy et al., 2011). The goal of phenomenological research was to disclose the essence or root of the phenomenon itself (Creswell, 2008). Husserl, recognized as the founder of phenomenology, performed his research using an epistemological or eidetic approach (Moustakas, 1994). Morse (1994) described the hermeneutic approach as the science of textual interpretation. Eidetic phenomenology attempted to describe the meaning of a phenomenon through human experiences, and hermeneutics centered on an interpretive analysis of the same human experiences (Haroon & Nisar, 2010). Researchers used the hermeneutic approach to identify the inner relatedness of the phenomenon and the change process using a qualitative research method (Haroon & Nisar, 2010). Focused on uncovering hidden meanings in the phenomena by using an interpretive method, which goes beyond descriptions was introduced by Heidegger (Morse, 1994). The hermeneutic method focused on rigorous examination of textual material in many forms such as words, pictures, or recorded conversation to establish a thorough understanding of the association between the whole and its parts (Haroon & Nisar, 2010).

Alternative Research Designs

Prior to selection of a phenomenological research design, thorough consideration was given to different and compatible research methodological designs. Examination of alternative research designs showed potential to adequately explore the central research

question. Alternative designs proved either inefficient or fail to deliver optimal outcomes.

Gap in the Literature

There is limited academic research relative to the effects of entropy on the postacquisition or postmerger integration of information technology departments. The literature review indicated that the integration of technology departments is extremely important to the success of the M&A process; however, previous M&A research has not focused on this specific aspect. The gap in the literature resided in a need to understand the entropy factors that affect postacquisition or postmerger integration of information technology departments. Better understanding of these entropy factors will optimize information technology department integrations, which will facilitate a greater chance for success of M&As.

Literature Review Conclusion

The literature review supported the central research question and sub-questions, which examine the effects of entropy on successful IT integration after an M&A. The literature review showed several observable trends. There is a trend to look past the financial and economic factors. Researchers are beginning to examine the human element in M&As. There is also a trend to hold management accountable for problematic mergers. In the past, top management would blame the shortcomings on uncontrollable outside influences. Recent literature indicates a tendency to look deeper and find the real reasons for integration issues that arise. Pertinent topics explored in the literature review include human elements, information systems technology, customer input, organizational

culture, premerger preparation, strategies, and organizational justice. Further research was necessary in order to refine models designed to analyze M&A success. A commonly held assumption in the field is that positive financial impact indicates a successful merger. The central research interest was the role and effect of management actions on the integration process of the information technology solutions of merged organizations. There was a gap in research with regard to the causes of disorder during the integration of information technology solutions of manufacturing organizations.

Transition and Summary

In Section 1, a thorough review of peer-reviewed literature examined various perspectives related to the main theme. These perspectives included previous studies, relevant theories, and analysis of strategies. The aim of the literature review was to gain an understanding of the internal and external forces that affect the merger integration process and the role of the human element in dealing with those forces.

Research related to postmerger and postacquisition integrations has been limited to success factors relating to business elements. The human element is generally ignored as a determination factor in achieving organizational goals in the postmerger environment (Fish, 2007). The majority of acquisitions completed since 1998 have resulted in failure in terms of increasing shareholder value (Alaranta & Henningsson, 2008). The failure reason is often attributed to the failure to achieve synergies in the information technology departments of the merged business units (Carlsson et al., 2011). The objective of the study was to explore the role of entropy affecting the merger process by examining strategies, patterns, and themes that emerge from the experiences and perceptions of

postmerger survivors whose jobs require interaction with information technology. The use of a qualitative phenomenological research model facilitated an understanding of the multifaceted phenomena (Sinkovics et al., 2008). The research has wide-ranging implications for organizations contemplating or currently involved in M&As. Failure to consider the human element in a postmerger integration, often results in undesired outcomes (Barzantny, 2007; Farjoun, 2010; Kusstatscher, & Cooper, 2005).

Section 2 expounds upon the purpose of the research, and the role of the researcher. In this section, I detailed the research methodology, the method of selecting research participants, the research data collection process, and the analysis methodology. Section 3 presents the research findings. This section also provides implications of the study for business and recommendations for further study.

Section 2: The Project

Purpose Statement

The purpose of this qualitative, hermeneutic, phenomenological study was to identify the lived experiences of a purposive sample of merger and acquisition survivors of U.S. manufacturing organizations. The focus was to explore their perceptions of the entropy phenomenon during the integration process of information technology solutions after an M&A. Target participants were from U.S. manufacturing companies that employed more than 500 and that have completed the postmerger integration of information systems solutions. The results of the study identified factors that create disorder as well as best practices that facilitate positive outcomes. The study results could be used to identify the effects of disorder on the human element in the merger process. The goal was to provide businesses anticipating an M&A with insights into the effects of entropy factors on the success of the integration process. A secondary goal was to provide a framework for change management to facilitate the achievement of merger goals and objectives.

The significance of this research study was introducing a new paradigm of change management applicable to postacquisition IT. The goal was to identify, understand, and reduce entropy between the leadership, middle management, and key employees during mergers. The study results could contribute to positive social change and impact business practice in a positive way. Results of the study identified best practices and factors that negatively affect achieving the organizational goals of integrating IT solutions. The study results may provide managers with real-world solutions to facilitate integration of

computer platforms, databases, software, and personnel. Identification of best management practices might help mitigate many of the issues faced when cultures and technologies are integrated and provide businesses anticipating an acquisition with insight into the effects of entropy factors on the ultimate success of the merger process.

Role of the Researcher

I have experienced the integration process following an M&A on four separate occasions at two different employers. Each integration effort had unique aspects; however, there were similarities in terms of opportunities for improvement. I included management from both of these organizations among the participants for this research study. I identified participants from other similarly sized manufacturing organizations using professional organizations and other reputable sources. My professional relationship with participants from two of the organizations, from which participants I selected, was vigilantly managed to eliminate researcher bias and prevent participants' hesitation to provide completely truthful responses to interview questions. None of the employees who currently report to me were selected as study participants. The participants were assured that the interviews are confidential and administered without disrupting business (Creswell, 2008).

Participants

Selection

In phenomenological research, participants are selected based on their experiences related to the phenomena being studied (Wilson & Washington, 2007).

Phenomenological inquiries typically include an in-depth interview with participants as

the primary data collection method (Wilson & Washington, 2007). Participants for this study were selected from U.S. manufacturing organizations that have completed the integration process of information systems solutions after an M&A within the past 5 years and that employ more than 500 people. I gathered business profile information to ensure the target organizations qualified as a source for participants (Appendix A). To qualify as a participant in the study, the employee must have been a mid-level or first-line management merger survivor who had experienced the postmerger entropy phenomenon. Participants were required to complete a demographic questionnaire (Appendix B). Mid-level and first-line managers represented a suitable population for this study because of their direct responsibility for coordinating and performing the integration process. Upper level and executive management are not typically involved directly in the integration efforts. Mid-level and first-line managers have direct knowledge of any conflict or disruptive forces impeding the integration effort.

Strategies for Gaining Access to Participants

Once target organizations were identified, I contacted the organizations' president or Chief Operating Officer (COO) in order to elicit permission to select participants from the organizations for the study. I assured the organizations' management the identities of the organizations and the participants would never be revealed. I provided a brief overview of the study and explained the criteria for participation to the president or COO of the targeted organizations. After the introduction, I asked the president or COO to propose mid-level and first-line managers who met the participant criteria of experiencing the entropy phenomenon during the integration process of an M&A.

Establishing a Working Relationship with Participants

I used a purposive sampling approach for this study. A purposive approach implies that participants are purposively selected based on their uniqueness, commonness, convenience, or for their maximum dissimilarity (Creswell, 2008). I selected the participants purposively based on their having experienced the entropy phenomenon while in a mid-level or first-line management position in a U.S. manufacturing organization employing more than 500 during a postmerger or postacquisition integration of information systems solutions. The original sample size was 6 to 10 participants. The study participant selection process also used snowball sampling, which increased the number of participants to 14. I added participants until a saturation point was reached. The number of participants in a qualitative study should be large enough to provide information up to the saturation point without becoming redundant (Green, Chung-Chin, & Larsen, 2010; Pratt, 2009).

Once potential participants were identified, I sent a letter requesting demographic information and their willingness to be a voluntary participant in the research study. Upon review of the demographic information, I asked each qualifying manager to sign a letter of consent (Appendix C) that detailed the research study, why the participant was chosen, how the interviews would be administered without disrupting business, how the results would be reported, and requested authorization to conduct a private interview. The interview setting was a conference room or any other location of the participant's choosing which provided an assurance of privacy in which the participant felt comfortable and able to speak freely without fear of being overheard. The participant

pool included employees from the mid-level and first-line management of the organizations during the integration process whose job required some level of interfacing with the information system solutions (Creswell, 2008).

Ethical Considerations

In the initial phase of the research project, I developed a checklist (Appendix D) in order to ensure that the project met all ethical standards and reduced the likelihood that the project would encounter setbacks or end prematurely. I reviewed the checklist prior to each interview to have each point refreshed in my mind to ensure ethical conduct and avoid researcher bias.

Confidentiality

Confidentiality was maintained according to federal guidelines. All interviews were conducted in a controlled environment that insured privacy and confidentiality. During the interview process, all notes, recordings, transcriptions, and electronic data was stored in a locked cabinet in my home office or stored electronically on a password protected folder on my home office computer, with myself as the single source of access. Each organization and participant was assigned untraceable numerical representations to protect their identities. Any reference made in the study results was by numerical representation only, and their true identities will never be revealed. The key to the numerical representations was secured in a locked filing cabinet in my home office or stored electronically in a password secured folder on my home computer. The key to the locked storage device and the password to the electronic storage device are known only to me. In five years after the completion of this study, the key to the numerical

representations along with all study documents will be destroyed to ensure confidentiality.

Research Approval

A research project that uses a data collection method that involves human participants must be reviewed by the Institutional Review Board (IRB) to ensure standards set by federal guidelines are met. The interview instrument was the one used by Fish in his 2007 study on which this study is based. I submitted the interview instrument to be reviewed and received approval by the Walden University IRB with approval number 11-21-11-0185187. This approval was received prior to the beginning of any research activity.

Research Method and Design

The research used qualitative methodology. The research strategy employed a hermeneutic phenomenological design. This section begins with a brief description of the three research methods: quantitative, qualitative, and mixed. This section also includes the rationale behind the selection of the qualitative research method and its appropriateness to this study. The section ends with a description of the hermeneutic phenomenological design used for this study.

Research Methods

Qualitative research. A qualitative research method does not have dependent and independent variables. Instead, it employs such methods as life histories, historical narratives, ethnographic first-person accounts, and biographical and autobiographical accounts (Ryan-Nicholls & Will, 2009). Qualitative data usually consists of words,

images, or symbols (Creswell, 2008). Cronbach (1975) maintained that purely statistical research cannot take full account of the various interaction effects that take place in social settings.

A qualitative research method uses multiple forms of data for analysis such as interviews, behavioral observation, and documents. The research method emerges as the study progresses. There are many research strategies that can be used when performing a qualitative study such as a case study, ethnography, narrative, grounded theory and phenomenological (Creswell, 2008). Among the qualitative research strategies, the phenomenological approach is the best choice for a study where the researcher performs interviews or observations to gather data to study and analyze a particular phenomenon. The researcher uses inductive data analysis in order to define patterns or themes.

Quantitative research. A quantitative research method uses surveys and experimental designs for collection of objective data to analyze variables (Creswell, 2008). Quantitative data consist of sets of numbers (Creswell, 2008). Quantitative research has a hypothesis that is formulated by the researcher prior to the start of the study. Quantitative research can use an experimental design that includes a control group and variables can be changed to test theories. The goal of the quantitative research is to collect data in order to deductive data analysis to prove or disprove the hypothesis (Creswell, 2008). An objective of the research performed was to explore the lived experiences of merger and acquisition survivors' integration of information systems and the entropy phenomenon within the framework of Fish's entropic model.

The research performed did not have variables that can be manipulated in order to prove or disprove a hypothesis. Therefore, the use of a quantitative research method was not appropriate for this study.

Mixed methods research. Mixed methods research is a combination of qualitative and quantitative research methods. A mixed methods study has a quantitative phase and a qualitative phase. The order in which the phases are conducted can vary; however, some researchers prefer to perform the research phases concurrently. The lack of a quantitative method for the research study performed made the mixed methods approach inappropriate.

Research model selection. A variety of perspectives were examined to determine the best research model for this research. There are a number of factors that pertain to a successful postmerger or postacquisition integration. These factors include company culture, employee retention decisions, cross-border issues, and others (Fish, 2007). Examination of these diverse factors would best be achieved using the strengths of a qualitative research model. The strength of qualitative research is in uncovering the significant variables involved in a complex phenomenon (Creswell, 2008). Qualitative research is a valuable tool for uncovering causal factors of variables in order to explain the underlying phenomenon (Creswell, 2008). Qualitative research allows the researcher to separate the factors of a complex phenomenon and determine their effect on the construct (Creswell, 2008).

Qualitative Research Design

Phenomenology. Phenomenology is a research approach for which the goal of the researcher is to describe a particular phenomenon as accurately as possible from the perspectives of the people involved without adding personal bias or preconceived outcome (Cassidy et al., 2011). Phenomenological research strives to disclose the essence or root of the phenomenon itself (Creswell, 2008). Husserl, recognized as the founder of phenomenology, performed his research using an epistemological or eidetic approach (Moustakas, 1994). In contrast to the epistemological approach to phenomenology, an alternate approach of hermeneutics, the science of textual interpretation, was introduced by Heidegger (Morse, 1994). Eidetic phenomenology endeavors to describe the meaning of a phenomenon through human experiences, and hermeneutics centers on an interpretive analysis of the same human experiences (Haroon & Nisar, 2010). The hermeneutic approach is used when the researcher seeks to recognize the inner relatedness of the phenomenon and the change process using a qualitative research method (Haroon & Nisar, 2010). Focused on uncovering hidden meanings in the phenomena by using an interpretive method that went beyond descriptions was introduced by Heidegger (Morse, 1994). The hermeneutic method focuses on rigorous examination of textual material in many forms such as words, pictures, or recorded conversation to establish a thorough understanding of the association between the whole and its parts (Haroon & Nisar, 2010). There are a number of qualitative research strategies from which to choose (Wolcott, 2008), and among these the phenomenological approach is the best choice for a study in which the researcher

performs interviews or uses observations to gather data to analyze a particular phenomenon (Creswell, 2008; Sinkovics et al., 2008), which made the phenomenological approach the most appropriate research design for this study.

Case study. Case study is a research approach for which a researcher explores, in depth, a specific activity, process, event, or individuals over a time period (Creswell, 2008). Research data is collected using a variety of collection procedures (Creswell, 2008). The research topic was not appropriate for a case study, which focuses on specific cases.

Grounded theory. Grounded theory originated with Glaser and Straus in 1967 and referred to a theory that is developed inductively from a quantity of data gathered through observation, conversation, and interviews (Urquhart et al., 2010; Lee & Broderick, 2007). The goal of grounded theory research is to create a new theory using an iterative refinement of data collections (Fish, 2007). There are two grounded theory methodologies constant comparison, for which data is coded and analyzed at the same time, and theoretical sampling, for which data is collected, coded, and analyzed refining the theory using multiple intervals or cases (Urquhart et al., 2010). The proposed study was not appropriate for the use of a grounded theory model, which involves generating a theory behind experiences and behaviors.

Ethnography. Ethnography is a research approach focused on the description and interpretation of a particular cultural or social group's behavior (Kriyantono, 2012). This approach typically requires that the researcher to become embedded and accepted in the group's everyday environment only as a participant observer with minimal or no

influence on the group (Kriyantono, 2012; Lee & Broderick, 2007). The research topic was not appropriate for an ethnographic study, which focuses on a population to discover the purpose behind common behavior patterns.

Narrative. Narrative research is an approach where the researcher studies the lives of individuals by asking the individuals to tell stories about their lives (Creswell, 2008). The stories are collected and retold in a chronological narrative format intertwining stories from the research's life (Creswell, 2008). The research topic was not appropriate for a narrative study in which researchers collect stories and retell stories intermingled with their own stories.

Selection of research design. The nature of the study incorporated a hermeneutic phenomenological qualitative research methodology. The semi-structured interview questions were designed to develop a comprehensive model based on the participants' responses. A qualitative data collection design was appropriate for data collection, analysis, and interpretation using observation of verbal actions and behavior of participants (Sinkovics et al., 2008). My intent was not to measure the impact of independent variables on dependent variables. Nor was it the re-examination of existing theories. Rather, my intent was to explore the perceptions of workers with regard to the entropy phenomenon experienced during the postmerger or postacquisition integration of information technology solutions.

There are many research strategies that can be used when performing a qualitative study such case study, ethnography, narrative, grounded theory and phenomenology (Creswell, 2008). The goal of the study was to explore the experiences and perceptions

of postmerger and postacquisition survivors to discover the nature of the entropy phenomenon during information systems solutions integrations. This study included an examination of their perceptions of the effect of actions taken during the integration of information technology solutions that either furthered or hindered the goals of the organization. A hermeneutic phenomenological approach was the appropriate selection for the study in order to discover the essence of entropy in postmerger and postacquisition and to provide an exploratory research design framework. To achieve a thorough understanding of the phenomenon, it was necessary to search for the true meaning by analyzing textual material accumulated from merger survivors who have lived through the integration process. Merger survivors from manufacturing organizations that employ more than 500 and have completed the integration process of information systems solutions within the past 5 years comprised the sources for interview subjects. Employees from mid-level and first-line management positions of the companies were chosen and interviewed via telephone or face to face.

Population and Sampling

The goal of sampling is to select a subset of the population that will enable the researcher to draw conclusions to accurately reflect the entire population (Creswell, 2008). Berg purposed the one common sampling method used in qualitative research was the nonprobability sampling method (Abowitz & Toole, 2010). Onwuegbuzie and Leech (2007) stated the nonprobability sampling method was a suitable method for selecting participants for a study seeking participants with a shared, lived experience. The

sampling approach for this study was a combination of purposive and snowball sampling techniques, two types of nonprobability sampling.

A purposive approach implies that participants are purposively selected based on their uniqueness, commonness, convenience, or for their maximum dissimilarity. The evolving qualitative research design allows the use of snowball sampling as well. For this method, like a snowball rolling downhill, the size of the participant pool grows based on recommendations for inclusion by the original participant pool (Creswell, 2008). The number of participants in a qualitative study is usually small. The proper sample size is dependent upon the information requirements of each study and methodology (Creswell, 2008). The number of participants in a qualitative study should be large enough to provide information up to the saturation point without becoming redundant (Creswell, 2008). A small sample size is typical in qualitative study because the goal is to understand a phenomenon in depth, not to discover what is generally true in a large population (Creswell, 2008).

I conducted a phenomenological study which required all participants to have experienced the entropy phenomenon during the postmerger or postacquisition integration of information systems solutions. The purposive selection of organizations included U.S. manufacturing organizations employing at least 500 which had completed a postmerger or postacquisition integration of information technology solutions. Thirty-five individuals were invited to be a participant. Fifteen individuals did not respond, 5 were not qualified, and 1 declined. Fourteen selected participants were midlevel or first-

line managers who work in IT or whose job required a high level of interface with information systems.

Each potential participant from the targeted organizations was required to provide demographic information, which was examined to ensure the prospective participants met the eligibility requirements for being selected as part of the population. Individuals from the targeted organizations, who met the requirements for participation in the study, were selected as primary participants, and signed a participant informed consent letter (Appendix C). During the interview process, each selected participant was asked if they would recommend another individual to be considered for participation in the study. The recommended individuals completed the demographic questionnaire to ensure they are eligible to be included in the population and as a participant in the study. If approved, each recommended individual signed a participant informed consent letter (Appendix C). By using the snowball technique, the sample size grew from the original 6 to 10 participants to 14. The total sample size was determined during the research process when data saturation had occurred.

Ethical Research Practices

Consent Processes

Participants completed a demographic information form (Appendix B). Upon review of the demographic information, each qualifying individual signed a letter of consent (Appendix C) that detailed the study, why the participant was chosen, how the interviews would be administered without disrupting business, how the results would be reported, and would request written authorization to conduct a private interview. If the

individual wished to participate in the study, they were assigned an untraceable numeric identifier.

Participant Withdrawal

Participants were informed orally when presented with the consent form (Appendix C) that their participation in the study was voluntary, and that they could withdraw from the study at any time during the process without penalty. The consent form (Appendix C) also contained a statement that withdrawal clause. Only one individual withdrew from the study.

Participant Compensation

Participants were informed that participation in the study was strictly voluntary and that there were no identifiable risks resulting from participation in this study. The participants were also informed that there would be no compensation or specific benefits resulting from participation in the study. However, the participant was informed that this will afford them an opportunity to share their experiences, and to have their voice heard anonymously.

Data Storage

The raw data collected during the interview process was stored in a locked filing cabinet in my home office with access only by me. All recorded conversations were immediately personally transcribed by myself. Once the recordings had been transcribed, the recording was permanently erased from the recording device. The transcripts were then stored in a password protected folder on my home office computer. All electronically stored data was backed up daily to a flash drive, which was stored in the

locked filing cabinet accessible only to myself. All transcripts and notes will be saved in the locked filing cabinet in my home office or in a password secured folder on my home computer. Five years after the completion of the study, all physical and electronic data will be destroyed.

Confidentiality

Confidentiality must be maintained to ensure the research meets the requirement of ethical behavior. During the interview process, all notes, recordings, transcriptions, and electronic data was stored in a locked cabinet in my home office or password protected folder on my home office computer, with myself as the single source of access. Each organization and participant was assigned untraceable numerical representations to protect their identities. The key to the numerical representations was secured in a locked filing cabinet in my home office and in electronic form on my home office computer in a password protected folder. The key to the locked storage device and the password to the electronic storage device will be known only to myself. The key to the numerical representations along with all study documents, both physical and electronic, will be destroyed five years after the completion of the study to ensure confidentiality is maintained. All interviews were conducted in a controlled environment that insured privacy and confidentiality.

Data Collection

Instruments

The research design included interviews of mid-level and first-line managers from U.S. manufacturing companies employing more than 500 that had completed the

information technology integration process following an acquisition or merger within the past 5 years. The instrument that was used in this study was the same interview questions created and used by Fish (2007). Using these previously used questions adds validity to the study. In order to maintain the validity of the data collected using this instrument, the sample size was large enough to produce rich data for analysis and, the employees selected to be interviewed were chosen and recruited in such a way that eliminated bias and provided a diverse variety of perceptions. Participants were chosen from a wide variety of departments in the organizations in order to collect data from multiple, functional viewpoints. Merger survivors from the acquired and the acquiring companies who work in IT or whose job requires a high level of interface with information systems were eligible for participant selection. Including members from both sides of the merger or acquisition added multiple perspectives, and therefore added depth to the data collected. The selection of participants with differing perspectives from multiple departments enabled the generalization of results which provided external validity to the study. In contrast to Fish's population of senior-level executives from service organizations, the selection of a population that excludes this level of management extended the results of the study and increased the external validity by increasing the ability of the study to be generalized to other populations.

Data Collection Technique

An interview instrument consisting of open-ended questions was used to collect data from the employees selected. The interviews were conducted face to face when possible. When not possible, the interviews were conducted via telephone. Each

interview was electronically recorded. The interview instrument that was used was the same interview instrument that Fish used for his 2007 study. The interview instrument must be free of bias and robust enough to collect data that can be analyzed effectively (Ryan-Nicholls & Will, 2009). Fish's interview instrument has been reviewed and approved by the University of Phoenix IRB. This prior verification ensures the instrument is valid, robust, and bias free.

The length and setting of the interviews was well thought out in order to ensure that the interviewee feels comfortable and able to speak candidly and privately to ensure protection from recrimination (Ryan-Nicholls & Will, 2009). The interview setting was a private setting such as a conference room, which ensured the participants could talk freely. The participants were ensured by me that answers would be kept confidential. Each interview was approximately one hour in duration. If a face-to-face meeting could not be arranged, the interview was conducted via telephone and was approximately one hour in duration. Each participant chose a location and time that ensured the interview was conducted at the participant's convenience. Regardless of the setting, each interview was recorded for later transcription. An interview checklist (Appendix E) was developed that will capture the date, time, and participant information on the electronic recording device. The script also included instructions that were read to the interviewee in order to provide a standard instruction to all participants. During the interview, I took notes between each question to describe any participant reaction (facial expressions, body language, etc.) that would not be captured on the electronic recording of the interview. Additional probing questions were asked to elicit more detail answers and specific

examples from the participants. Any additional probing question did not exceed the boundaries of the original interview question. At the end of the interviews, the participants were asked if they have a recommendation for a potential participant that could add to the information collected. The participants were thanked for their cooperation, and at the end of each interview, the time was stated for the record. The participants were given a copy of the transcribed interview for their review and approval. Any changes required by the participant were made immediately and the transcribed interview was again given a fresh copy for their review and approval.

I was aware there was a potential for unintentional bias as a result of my tone of voice, body language, or other method. I practiced interviewing members from a non-participant population. At the end of each pre-interview session, I asked the interviewee for feedback about what I needed to change in order to reduce the introduction of bias. In addition, I verified that the one hour time limit was sufficient to collect meaningful data or if the length of time needed to be increased or decreased.

Immediately following each interview, the electronic recording was transcribed by myself to a textual format. After the transcription was complete, a copy was provided to the participant for additional information and correction of errors or misinterpretation of statements by me. Once the participant made corrections, the interview document was stored in a locked filing cabinet in my home office, or electronically in a password protected folder on my home office computer.

Data Organization Techniques

The electronic data created or collected during the study was stored in Word 2007, Excel 2007, and PDF format. A folder hierarchy was established in order to easily find and access data. The electronic data was organized into four basic categories. The first category was research documents, such as correspondence with Walden staff, research targets, research participants, and copyright owners. The second category was study population and participant information, which included participant keys, participant interview transcripts, and researcher notes. The third category was research articles, which included literary review articles, dissertations, web articles and notes from books. The fourth category was data analysis which included codes, groups, themes, data produced from a data analysis software package, graphs, and charts. Figure 2 details the hierarchy structure.

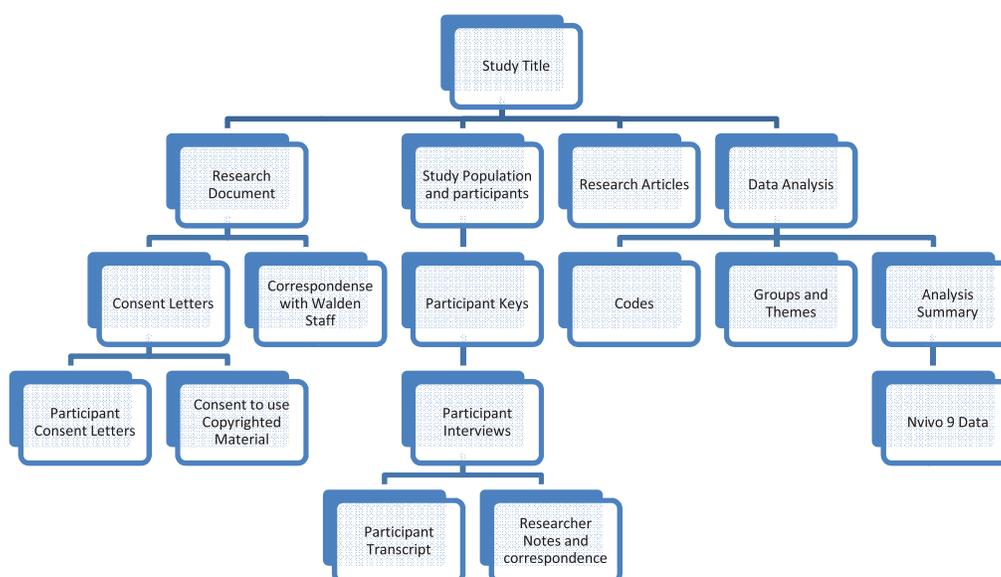


Figure 2. Data storage hierarchy structure.

The use of a data analysis software package alleviates time constraints and could reduce the chance of researcher bias during the coding process (Atherton & Elsmore, 2007). For this study the software package used was NVivo 9 which facilitates phenomenological data reduction, and coding data into themes. A description of the setting, people, and categories was generated after the coding process. An initial design was based on how the coded descriptions were presented in a qualitative narrative. The transcribed data was processed using NVivo 9 until a saturation point was reached and data became redundant.

Data Analysis Technique

The purpose of the study was to identify the nature of entropy experienced during the process of integrating IT solutions after a merger or acquisition. The interview instrument contained open-ended questions that would elicit responses from participants that would provide their perceptions of the phenomenon. The central research question that directed the research was as follows:

What is the nature of entropy in postmerger and postacquisition integrations (Fish, 2007)?

The additional sub-questions that directed the research was as follows:

1. What is the relationship between entropy and the five postmerger and postacquisition integration factors?
2. What entropic relationships exist among postmerger and postacquisition integration factors?

3. What other considerations or attributes comprise the entropy phenomenon in postmerger and postacquisition integrations?

Interview questions 1 and 2 addressed the main research question. Interview questions 11, 12, and 13 addressed research sub-question one. Interview questions 3, 4, 5, 6, 7, and 8 addressed research sub-question two. Interview questions 9, 10, 14, 15, 16, and 17 addressed research sub-question 3.

Interview questions:

1. Please describe how you would characterize the nature of entropy during postmerger and postacquisition integration.
2. What specific experiences drive your views of entropy during postmerger and postacquisition integration? Please provide examples.
3. What is the relationship between communication and entropy during postmerger and postacquisition integration? Please provide examples.
4. What is the relationship between organizational culture and entropy during postmerger and postacquisition integration? Please provide examples.
5. What is the relationship between leadership and entropy during postmerger and postacquisition integration? Please provide examples.
6. What is the relationship between people and entropy during postmerger and postacquisition integration? Please provide examples.
7. What is the relationship between strategy and entropy during postmerger and postacquisition integration? Please provide examples.

8. When considering communication, organizational culture, leadership, people, and strategy, how would you describe the relationship among these factors in terms of entropy during postmerger and postacquisition integration? Why?
9. How would you characterize different states or levels of entropy during postmerger and postacquisition integration?
10. What specific experiences drive your views of states or levels of entropy during postmerger and postacquisition integration? Please provide examples.
11. When considering communication, organizational culture, leadership, people, and strategy, which of these factors contributes the most to increasing entropy during postmerger and postacquisition integration? Why?
12. When considering communication, organizational culture, leadership, people, and strategy, which of these factors contributes the most to decreasing entropy during postmerger and postacquisition integration? Why?
13. When considering communication, organizational culture, leadership, people, and strategy, which of these factors contributes the most to inhibiting entropy during postmerger and postacquisition integration? Why?
14. How would you describe the negative impacts of entropy during postmerger and postacquisition integration? Please provide examples.
15. How would you describe the positive impacts of entropy during postmerger and postacquisition integration? Please provide examples.

16. In your experience, what other factors or considerations contribute to or impact entropy during postmerger and postacquisition integration? Why? Please provide examples.
17. Do you have any other thoughts regarding entropy and postmerger and postacquisition integrations?

The analysis began with a preparation of the data. Audio interviews or diaries were transcribed verbatim and research notes were typed. All data and notes were thoroughly reviewed looking for general patterns. The data was then coded. The coding process was an iterative one in which new codes were added until I felt comfortable that the coding had reached a viable level of granularity. Notes taken during the review process were used to identify patterns and themes. The data was then categorized based on the patterns and themes identified during the review process. The use of data analysis software packages for qualitative research has gained credibility and acceptance in the research community. Technology has progressed rapidly and has matured to a point where several reliable software packages are now available to assist researchers (Atherton & Elsmore, 2007).

There are software packages available to assist in the coding process such as QSR NVivo. The use of a data analysis software package alleviates time constraints and could reduce the chance of researcher bias during the coding process (Atherton & Elsmore, 2007). For this study the software package used was NVivo 9. A description of the setting, people, and categories were generated after the coding process. An initial design was based on how the coded descriptions were presented in a qualitative narrative. The

final step was to interpret the data collected (Creswell, 2008). The study results were then compared to Fish's 2007 study to determine if the results are consistent with Fish's findings.

Reliability and Validity

Scholarly research must be both reliable and valid. Sandelowki (1986) identified the categories associated with tests of rigor for qualitative research. They include credibility (internal validity), transferability (external validity), dependability (reliability and objectivity), and confirmability (reliability and objectivity) (Sandelowki, 1986; Walden, 2010).

Reliability

Reige (2003) suggested several techniques to increase reliability. These are paying attention to detail when recording observations and actions, using a research method that fits the research problem, using pilot studies, repeating examination of interview questions structure and tone, using mechanical interview recording methods, developing a logical data organization method, and having results reviewed by peers. The interview questions used for this study were the same as the questions used in 2007 by Fish. The set of questions had been reviewed by the University of Phoenix and deemed reliable, free of bias, and able to generate appropriate data for analysis. The interviews were recorded electronically and then transcribed verbatim into a Microsoft Word 2007 documents. Notes were taken during the interviews to record any significant facial or body language clues that would not be captured on the recording.

The data were organized in such a manner for input into the NVivo 9 software for classifying.

The data analysis should be done in such a way that the techniques used are sound and analysis can be justified. The method of weighing, grouping, and assigning to categories must be free of researcher bias and defensible. The use of triangulation can lend credibility to research by getting the same results using different methods such as interviews, observations, surveys, case studies, focus groups, and others (Ryan-Nicholls & Will, 2009). Using multiple methods to code qualitative data will reduce researcher bias and validate findings (Jonsen & Jehn, 2009). The recordings and word documents were inspected and reviewed as part of an iterative process of refining the data analysis. The results were reviewed and critiqued by peers. This process should reduce the possibility that errors in interpretation or researcher bias, which ensured defensible and confirmable results.

One risk that must be mitigated was the influence of the interviewer on the interviewee as a result of question wording, tone of voice, and other possible influences. Particular attention was given to the elimination of influence on interviewees that would affect the credibility of the study and the reputation of the researcher (Creswell, 2008; Ryan-Nicholls & Will, 2009). Another risk that was addressed was the interviewee's unwillingness to give honest answers in lieu of trying to say what they think the organization wanted them to say (Creswell, 2008). The interviewees were assured that their identities, and the company identity, would not be revealed at any time. All names were eliminated and replaced with a numerical representation with appropriate safeguards

against any unauthorized access. The key to the numerical representation was stored in a locked filing cabinet in my home office or stored electronically in a password protected folder on my home computer which can be accessed only by myself. To ensure reliability in the study, a) the data set consisted of verbatim electronic recording transcriptions, b) NVivo 9 software was used as a time saving instrument for coding and analysis, and c) only myself performed the transcription process of participant interviews and data coding.

Validity

The concept of validity is not easy to isolate in qualitative research and does not have the same meaning as it does in quantitative inquiry (Creswell, 2008). Riege (2003) suggested several techniques to increase validity. These are the use of multiple data sources, establishment of a chain of data that can be cross-checked and cited, participant and peer review of drafts to ensure the data collected supports the conclusions made, use of illustrations and diagrams to supplement data analysis, cross-checking results, and thoroughly defining the scope and boundaries of the research to increase generalization.

The research design included interviews of managers from U. S. manufacturing companies that had experienced the entropy phenomenon during a postmerger or postacquisition integration of IT solutions. The interview instrument must be free of bias and robust enough to collect data that can be analyzed effectively. The interview instrument used in this study was the interview instrument used in Fish's 2007 study. The set of interview questions were reviewed by the University of Phoenix IRB and deemed free of bias and valid.

In order to maintain the validity, a sample size not only needs to be large enough to produce rich data for analysis, the employees selected to be interviewed must be chosen and recruited in such a way that will eliminate bias and provide a diverse variety of perceptions. The study targets included at least three and no more than four targeted organizations from which participants was selected. The purposive selection of organizations included U.S. manufacturing organizations employing more than 500 people and having completed a postmerger or postacquisition integration of information technology solutions.

Transition and Summary

The study incorporated a qualitative hermeneutic phenomenological design to examine the nature of entropy experienced during the information technology solution integration by postmerger survivors. This study focused on the integration factors of communication, culture, leadership, personnel, and strategy identified by Fish's 2007 study upon which this study was based, and the nature of entropy during the integration process of U.S. manufacturing organizations. The study used verified phenomenological qualitative methods. The construction of the research design was consistent with established phenomenological research methodologies and incorporated procedures to maintain the validity of data collection and interpretation. Section three includes data collection, analysis, and interpretation. The section also discusses the study results, implications for business, and recommendations for further research.

Section 3: Application to Professional Practice and Implications for Change

The purpose of this qualitative hermeneutic phenomenological study was to extend Fish's (2007) entropic model of postmerger and postacquisition integration by examining the lived experiences of a purposive sample of mid-level and first-line managers who have survived an M&A of U.S. manufacturing organizations. The study was an attempt to identify factors that create disorder as well as best practices that facilitate positive outcomes. The study results could be used to identify the effects of disorder on the human element in the merger process. The goal was to provide businesses anticipating a merger or an acquisition with insights into the effects of entropy factors on the success of the integration process.

This section includes data collection, analysis, and interpretation. The section provides a detail presentation of the study results, implications for business, and recommendations for further research.

Overview of Study

This phenomenological qualitative study was conducted to explore the perceptions and lived experiences of mid-level and first-line managers in a manufacturing business environment about entropy when merging business units after an acquisition. Data was collected using open-ended questions in audio-recorded interviews. I used NVivo 9 software to analyze the data in order to identify themes and patterns. The research was focused on one central research question; What is the nature of entropy in postmerger and postacquisition integrations? I used this central question, along with sub-questions, to discover what factors caused disruption and disorder during the integration

process. IT was identified as a significant point of interest in the majority of M&As (Alaranta & Henningson, 2008). This study was conducted to examine entropy issues in the merger process from the IT perspective and expand the knowledge base established through studies in other business environments, particularly the research conducted by Fish (2007).

Presentation of the Findings

Data Collection Review and Outcomes

Participant selection. The purposive selection of organizations included U.S. manufacturing organizations that employed at least 500 workers and have completed a postmerger or postacquisition integration of information technology solutions. Selected participants were mid-level or first-line managers who work in information technology or whose job required a high level of interface with information systems.

Participant selection outcomes. Four manufacturing organizations were selected, comprising a total work force of 4,734. From this number there were 340 first-line and mid-level managers, of which 102 managers worked in information technology or a job that involved a high level of interface with their company's information systems. The qualified participants were reviewed and the number of potential participants was narrowed to the managers with the most significant interface with information systems, which reduced the population to 35 potential participants, who were invited to be participants.

Each potential participant from the targeted organizations who responded to the invitation was required to provide demographic information, which was examined to

ensure the perspective participants met the eligibility requirements for being selected as part of the sample. Ten individuals from the targeted organizations, who met the requirements for participation in the study, were selected as primary participants, and signed a participant informed consent letter (Appendix C). During the interview process, the selected participants were asked if they would recommend another individual to be considered for participation in the study, constituting snowball sampling. The recommended individuals completed the demographic questionnaire to ensure they were eligible to be included in the sample as a participant in the study. Four recommended individuals signed a participant informed consent letter (Appendix C). By using the snowball technique, the sample size grew. The total sample size was determined during the research process when data saturation had occurred. Figure 3 graphically illustrates the potential participant distribution.

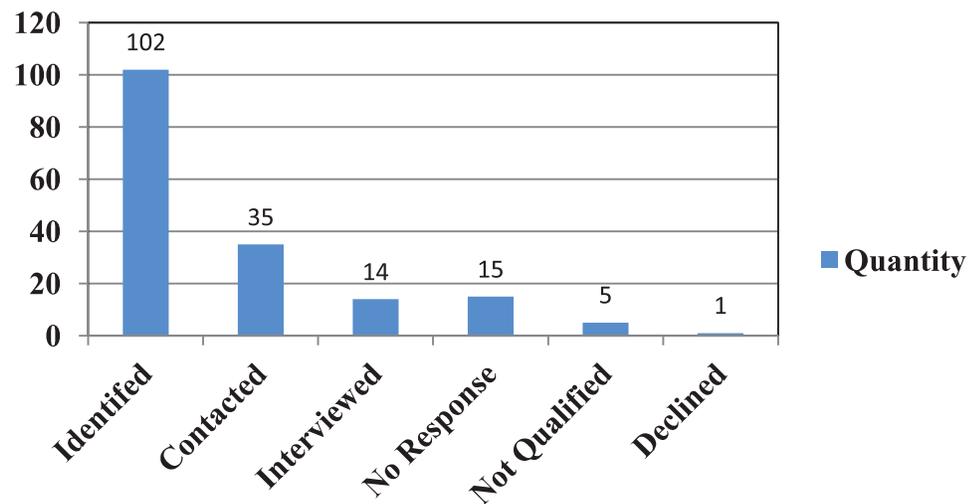


Figure 3. Participant distribution

Interviews. The interviews were conducted over a 2-month period of January and February, 2012. An interview instrument consisting of 17 open-ended questions was used to collect data from 14 first-line or mid-level managers who worked in information technology (IT) or had significant interaction with the computer software solutions after the postacquisition IT software integration. The interviews were all conducted face to face. The interview setting was a private setting such as the participant's private office or a conference room, which ensured the participants could talk freely. Regardless of the setting, each interview was recorded and transcribed by myself, and reviewed and approved by the interviewee.

Interviews outcomes. Most of the interviewees were enthusiastic about having been selected as a participant, although one participant withdrew from the study prior to being interviewed. This person was replaced with one of the original respondents who was qualified but not selected as a primary participant. The responses to the interview questions varied, but were similar in some aspects depending on the side of the acquisition with which the interviewee was associated.

Data Analysis Review and Outcomes

The data collected fell into two categories: (a) demographic data, and (b) data recorded and transcribed from the participants' responses to 17 open-ended interview questions. The purpose of the study was to identify the nature of entropy experienced during the process of integrating information technology solutions after a merger or acquisition. The interview instrument contained open-ended questions that would elicit responses from participants that would provide their perceptions of the phenomenon.

For this study the software package used to aid in coding and grouping the data was NVivo 9. The use of a data analysis software package alleviates time constraints and could reduce the chance of researcher bias during the coding process (Atherton & Elsmore, 2007). The transcribed data was processed using NVivo 9 until a saturation point was reached and data became redundant.

The analysis began with the preparation of the data in Nvivo 9. All data and notes were thoroughly reviewed looking for general patterns. The data was coded using an iterative process into four high level nodes; 1) Participants, 2) Entropy Factors, 3) Interview Questions, and 4) Research Question.

Participants coding. A parent node was created for participants. A sub-node was created for each of the 14 participants with each participant's responses aggregated to the parent node. A classification node of person was added to store the descriptive data collected on the Participant Demographic Questions document (Appendix B).

Entropy factors coding. A parent node was created for the entropy factors. A sub-node was created for each of the 5 entropy factors. Data pertaining to each factor was coded to the appropriate sub-node during the coding process. In addition, a sub-node was created for the entropy factor ranking which contained sub-nodes for factors that 1) most increase entropy, 2) most decrease entropy, and 3) most inhibit entropy.

Interview questions coding. A parent node was created for the interview questions. A sub-node was created for each of the 17 open-ended questions. Interview question responses from all of the participants were coded under the appropriate interview question nodes, which were used to collect all of the answers for each question

from all participants under the appropriate question sub-node which was aggregated to the parent node.

Research question coding. A parent node was created in Nvivo9 for the central research question and a sub-node was created for each of the 3 sub-questions. Interview questions 1 and 2 from all 14 participants were coded in the node for the central research question. Interview questions 11, 12, and 13 from all 14 participants were coded in the node for research sub-question 1. Interview questions 3, 4, 5, 6, 7, 8 from all participants were coded in the node for research sub-question 2. Interview questions 9, 10, 14, 15, 16, 17 from all participants were coded in the node for research sub-question 3.

Demographic findings. The participant pool was made up of 10 male (71.4 %) participants and 4 female participants (28.6%); 10 participants (71.4%) had experienced being on both sides of an acquisition. Six of the participants were first-level managers (42.9%) and eight were mid-level managers (57.1%). Figure 4 graphically illustrates the relationship between male and female managers in terms of managerial level.

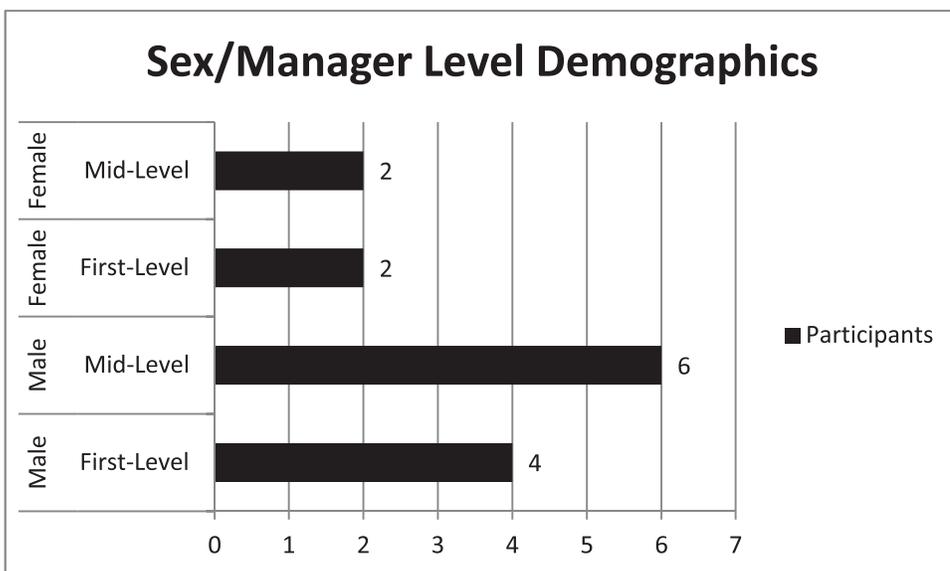


Figure 4. Participant Demographics

Research question findings. The central research question that directed the research was as follows:

What is the nature of entropy in postmerger and postacquisition integrations (Fish, 2007)? To achieve a deeper understanding of the entropy phenomenon, additional research sub-questions include:

1. What is the relationship between entropy and the five postmerger and postacquisition integration factors?
2. What entropic relationships exist among postmerger and postacquisition integration factors?
3. What other considerations or attributes comprise the entropy phenomenon in postmerger and postacquisition integrations?

Central Research question. Interview questions 1 and 2 centered on eliciting participants lived experiences to the research question, “What is the nature of entropy in postmerger and postacquisition integrations?” The participants’ perceptions of entropy in postmerger and acquisition integrations ran the gamut of negative feelings, negative reactions, and negative working environments. The answers to the questions were explored by using a word frequency query. The list was reduced to include only the words that were entropy descriptors. The participants whose interview answers included each of these descriptors were then identified. The number of times the participants used the descriptors was not used as a basis for identification of major entropy descriptors; instead the participants’ use of a descriptor was counted only once. Once the number of

participants who used each of the words identified was tallied, any descriptor which was used by four or more participants was considered a major entropy descriptor. Any descriptor which was used by fewer than three was considered a minor entropy descriptor. The descriptors were classified into three entropy descriptor categories: (a) feeling, (b) reaction, and (c) environment.

Table 1
Major Entropy Descriptors

Descriptor	#	Category	Descriptor	#	Category
Anger	7	Feeling	Loss	12	Feeling
Arrogance	6	Feeling	Misunderstood	4	Feeling
Chaos	4	Environment	Painful	8	Feeling
Clash	6	Environment	Pressure	7	Environment
Complaining	5	Environment	Resentment	4	Feeling
Conflict	4	Environment	Resistance	7	Reaction
Confusion	5	Environment	Shock	4	Feeling
Defiance	4	Feeling	Strained	4	Environment
Difficult	11	Environment	Stressful	9	Environment
Disconnect	4	Reaction	Suffering	5	Reaction
Dissension	5	Feeling	Tough	5	Environment
Distrust	7	Feeling	Troubling	4	Feeling
Egotism	7	Environment	Turmoil	4	Environment
Fear	7	Feeling	Uncooperative	5	Reaction
Fighting	6	Environment	Unknown	4	Feeling
Friction	6	Environment	Waste	7	Environment
Frustration	9	Feeling	Worry	4	Reaction
Hurt	5	Feeling			

The 35 major entropy descriptors identified during the word count analysis are illustrated in alphabetical order in Table 1. All participants' responses contained at least 1 descriptor in each entropy descriptor category. Twelve participants (86%) perceived entropy in terms of loss (Participants 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, and 14). The 80 minor entropy descriptors identified are listed in alphabetical order in Appendix F.

Anger. Anger was a major entropy descriptor for seven participants (Participants 4, 6, 7, 9, 11, 12, and 14). Participants felt angry when they perceived they were not taken seriously or felt their leaders had betrayed them. Feelings of anger were not limited to the members of the acquired organization.

Arrogance. Arrogance was a major entropy descriptor for six participants (Participants 2, 3, 4, 9, 11, and 14). The main concern of participants was the arrogant manner in which the members of the acquiring company interacted with people from the acquired company. However, not all postacquisition integrations perceived originated from the acquiring company. One participant commented on the arrogance of the acquired company in terms of its effect on the merged organization.

Chaos. Chaos was a major entropy descriptor for four participants (Participants 2, 3, 4, and 12). The primary perception by participants was that chaos was a direct result of poor leadership during the system integration effort.

Clash. Clash was a major entropy descriptor for six participants (Participants 1, 3, 4, 7, 12, and 14). Clash was perceived as a result of differing organizational cultures and the inability for either side to embrace change.

Complaining. Complaining was a major entropy descriptor for five participants (Participants 2, 3, 6, 11, and 14). Participants felt the main reason for the constant complaining was it served as a means for getting one's own way despite the fact that it may not be the most beneficial way for the company.

Conflict. Conflict was a major entropy descriptor for four participants (Participants 5, 6, 7, and 12). Participants perceived conflict as a result of dissimilar cultures, management styles, and personalities.

Confusion. Confusion was a major entropy descriptor for five participants (Participants 2, 3, 7, 11, and 14). Participants' perception of confusion was a result of communication discrepancies, the lack of timely, honest communication by leadership, and the short integration timeline.

Difficult. Difficult was a major entropy descriptor for 11 participants (Participants 1, 2, 3, 4, 5, 7, 8, 9, 11, 12, and 14). Participants' perception of difficult centered around the inability of the leadership to make a decision and stand behind that decision, and dealing with people who are not team players.

Distrust. Distrust was a major entropy descriptor for seven participants (Participants 1, 4, 7, 10, 11, 12, and 14). Participants' perception of distrust centered upon having to work with people from the other organization. People become distrustful of new people, especially when they are nervous about possibly losing their jobs to these same people.

Egotism. Egotism was a major entropy descriptor for seven participants (Participants 1, 2, 7, 9, 11, 12, and 13). Participants' perception of egotism was based on the actions of people from both sides of the acquisition. Participant 1 stated, "There were a couple of people on real ego trips that seemed to come in and demand that their directions should not be questioned. Respect and loyalty have to be earned, not dictated."

Fear. Fear was a major entropy descriptor for seven participants (Participants 1, 2, 6, 7, 10, 11, and 12). Participants' perception of fear centered upon the fear of losing their jobs and security.

Fighting. Fighting was a major entropy descriptor for six participants (Participants 1, 6, 8, 9, 10, and 11). Participants' perception of fighting was based on the actions of company leaders' in-fighting and attempts to provide themselves a position in the integrated organization, as well as preserve the systems and policies for which they felt ownership.

Friction. Friction was a major entropy descriptor for six participants (Participants 1, 4, 6, 7, 9, and 13). Participants' perception of friction was based on interaction with personnel from the other company during the integration decision making process and while trying to work together to accomplish the day-to-day tasks required to keep the company running.

Frustration. Frustration was a major entropy descriptor for nine participants (Participants 4, 5, 6, 9, 10, 11, 12, 13, and 14). Participants' perception of frustration was a result of the length of time it took to get anything accomplished and the unwillingness of some people to accept any kind of change.

Hurt. Hurt was a major entropy descriptor for five participants (Participants 3, 8, 9, 11, and 12). Participants' perception of hurt focused on two distinct aspects: (a) hurt feelings, and (b) hurting the company.

Loss. Loss was a major entropy descriptor for 12 participants (Participants 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, and 14). Participants' perception of loss emerged as a central

theme resulting from post integration loss of coworkers, friends, family, home, and systems in which they took ownership and pride. Participant 1 stated, “It seemed to come in waves; the loss of our system, the loss of some of our best employees, the loss of our physical location, and the move to a totally unfamiliar location working with people we didn’t know.”

Misunderstood. Misunderstood was a major entropy descriptor for four participants (Participants 8, 12, 13, and 14). Participants’ perception of misunderstood focused on the loss of productivity resulting from misunderstandings either real or bogus. Participant 13 stated, “I’m not sure if they misunderstood the instructions or if they were just outright ignoring us and being defiant.”

Painful. Painful was a major entropy descriptor for eight participants (Participants 1, 2, 4, 5, 6, 7, 9, and 10). Participants’ perception of painful was expressed in both physical and mental pain. Participant 1 stated, “I felt like I had to prove myself every single day. I felt that I was being rejected because I was not part of the clique. It was physically and emotionally painful.”

Pressure. Pressure was a major entropy descriptor for seven participants (Participants 1, 2, 4, 6, 9, 11, and 13). Participants’ perception of pressure resulted from their sense of achieving outcomes despite the numerous roadblocks that they faced.

Resentment. Resentment was a major entropy descriptor for four participants (Participants 1, 4, 6, and 9). Participants’ perception of resentment was that it resulted from the reaction of people who felt that they should have kept their jobs.

Resistance. Resistance was a major entropy descriptor for seven participants (Participants 2, 3, 4, 10, 12, 13, and 14). Participants' perception of resistance was focused on reactions from the personnel of the acquired company.

Shock. Shock was a major entropy descriptor for four participants (Participants 1, 5, 12, and 13). Participants' perception of shock was the unexpected announcement that the acquiring company would be moving to the acquired company's ERP system followed by terminations and relocation of employees from the acquiring company.

Strained. Strained was a major entropy descriptor for four participants (Participants 3, 6, 8, and 13). Participants' perception of strained centered on relationships between people of the acquiring and acquired organizations.

Stressful. Stressful was a major entropy descriptor for nine participants (Participants 1, 2, 3, 4, 5, 6, 8, 9, and 14). Participants' perception of stressful centered on the state of the environment in which they had to work. So much needed to be done, but there was chaos, which resulted in increasing stress levels.

Suffering. Suffering was a major entropy descriptor for five participants (Participants 1, 6, 7, 8, and 12). Participants' perception of suffering was that it is a side-effect of loss of talent, pressure, and the disconnect between employees and company leaders.

Tough. Tough was a major entropy descriptor for 5 participants (Participants 1, 2, 4, 11, and 13). Participants' perception of tough resulted from difficulty in the relationships between people from the two sides of the integration, and the work environment they created.

Troubling. Troubling was a major entropy descriptor for four participants (Participants 1, 7, 9, and 12). Participants' perception of troubling grew out of not understanding or being able to rationalize the actions of leadership.

Turmoil. Turmoil was a major entropy descriptor for four participants (Participants 1, 2, 3, and 10). Participants' perception of turmoil was described the environment in which they worked during the integration process.

Uncooperative. Uncooperative was a major entropy descriptor for five participants (Participants 4, 6, 9, 10, and 11). Participants' perception of uncooperative resulted from interaction with people from one particular acquisition.

Unknown. Unknown was a major entropy descriptor for four participants (Participants 1, 10, 12, and 13). Participants' perception of the unknown focuses on the people's fear of the unknown and their ability to plan correctly when the process is unknown.

Waste. Waste was a major entropy descriptor for six participants (Participants 2, 4, 8, 9, 10, 11, and 14). Participants' perception of waste centered upon wasted effort by employees, and the resulting unproductive efforts by all involved.

Worry. Worry was a major entropy descriptor for four participants (Participants 1, 5, 9, and 11). Participants' perception of worry was closely associated with the loss of employment after the integration.

Research Sub-question 1. Interview questions 11, 12, and 13 centered on eliciting participants' lived experiences concerning the research sub-question "What is the relationship between entropy and the five postmerger and postacquisition integration

factors?” All 14 participants responded to the interview questions. The factor interviewees perceived as having most increased the entropy phenomenon was communication (35.7%), especially the lack of honest, timely communication, followed by leadership (28.6%). Participant 1 stated, “The communication needs to be on a regular basis and should reflect the truth about what is going on and what the future changes might be.” Participant 3 stated, “In my opinion, leadership contributes most to increasing entropy. The leadership of the company establishes the organizational culture and determines the strategy of the company. In addition, the level of communication is also established by the leadership and culture.”

The factor the interviewees perceived as the one that most decreased the entropy phenomenon was leadership (57.1%), followed by communication (28.6%). Participant 10 stated, “Communication just in the boardroom when all of the suits are sitting around the table hashing it out is not good enough. Participant 11 stated, “Leadership is the factor that contributes the most to decreasing entropy. If you have good leadership, you will have good communication and they will support an organizational culture that allows them to meet the company’s goals.” Participant 13 stated, “Leadership is the factor that most contributes to decreasing entropy during the integration. If the leadership is behind it and you don’t see any hesitation in their talk, there is no room for modifications.” Participant 14 stated, “A good leader will make sure that there is a proper level of communication and will promote a culture where creative ideas are welcome and people will adapt to the environment.” Participant 9 stated, “I think if you have good leadership

that communicates to the right people what they need to, when they need to go a long way to decreasing the amount of entropy that is experienced.”

The factor the interviewees perceived as the one which most inhibited the entropy phenomenon was leadership (42.9%). Participant 14 stated, “Leadership is the factor that contributes most to inhibiting entropy. Good leadership sets the direction of the company and the tasks that must be accomplished to make the company profitable. When the direction is clear, there are no misunderstandings.” Participant 3 stated, “The leaders should be aware that they are not just buying a company, but they are setting strategy for the newly acquired company’s employees who have the ability to affect your organization’s profitability.”

Communication factors findings. Interview question 3 focused on the interviewees’ perception of the relationship between communication and entropy. All 14 participants (100%) experienced entropy as a result of communication. The participants’ responses were grouped into four themes: (a) two-way communication, (b) quality of communication, (c) lack of communication, and (d) honest, timely communication.

Two-way communication was a concern for two participants (14.3%, Participants 3 and 13). The effects of not having two-way communication resulted in distrust, misunderstandings, and suspicion on the part of the employees that feel they have no voice in the process. Participant 3 stated, “without honest, two-way communication there is guaranteed to be entropy...because the members of the acquired company had no input...it actually seemed like they tried to make the system integration fail.” Participant 13 said, “Most of the communication was by phone or email...without really being able to

see them face to face, it was hard to tell if they were really getting what we were trying to communicate to them.”

Quality of communication was a concern for six participants (42.9%, Participants 1, 5, 6, 9, 10, and 12). Incomplete or inaccurate communication became a source of anxiety, frustration, and a sense of abandonment by the leadership of the company. There existed a perception that some managers were withholding information because of control issues. The perception was that IT personnel was usually the last to know about any initiative, that meetings were held without an IT presence, and decisions were made and communicated to IT personnel when it was too late to take appropriate action to ensure that the company’s infrastructure would support current and future endeavors. Participant 9 stated, “There are things that go on that people should be informed about and they are not, because certain personnel want to control information.” Participant 10 stated, “There are some people in a room who know what’s going to happen during the merger, but everyone downstream does not; especially IT...if the communication was better...it would help us out tremendously on planning for future.”

Lack of communication was a concern for five participants (35.7%, Participants 1, 2, 8, 11, and 14). Participants experienced a lack of communication, which resulted in stalling initiatives and a reduction in synergies. Decisions were being made that affected all locations without any input from anyone from the locations. Participant 1 stated, “the lack of communication was staggering and debilitating. If there was an integration plan by upper management, it was not communicated to employees from either side of the acquisition.” Participant 2 stated, “We were not informed about things until we stumbled

on it. We had to deal with the consequences after changes had been made”. Participant 11 stated, “The team had now become two teams; one for the acquired company and one for the acquiring company and there was no communication between the two even though critical decisions were being made that affected us all.”

Honest, timely communication was a concern for four participants (28.6%, Participants 2, 4, 7, and 11). Participants described the communication during integration as cryptic, confusing, and at times suppressed altogether. Some experienced delayed or dishonest communication resulting from some company members’ private agendas. Participant 2 stated, “Sometimes I felt that information was being withheld just waiting for me to make a mistake and fall...some people would sit back and wait till you failed before they would provide information that would have made you succeed.” Participant 4 stated, “Open and timely communication conveys ‘You are trusted and valued enough that you should know the upcoming plans.’ Lack of communication is the opposite. It fosters distrust which propagates rumors and speculation, which propagates ill will.” Participant 11 stated, “We should have everything coming down to us so we are all on the same page. We're not individual companies; our goal is to make money for our stakeholders and at the same time be good corporate citizens...not our private agendas.”

Leadership factor findings. Interview question 5 focused on the interviewee’s perception of the relationship between leadership and entropy. Thirteen of the participants (92.9%) experienced entropy as a result of leadership. One participant (7.1%), Participant 9 was neutral as a result of being shielded by their manager. The

participants' responses were grouped into 5 themes: (a) engagement and commitment, (b) vision, (c) flexibility, (d) accountability, and (e) communication.

Engagement and commitment was a concern for four participants (28.6%, Participants 4, 10, 11, and 13). Participants experienced the perception that the integration effort was not fully supported by the senior members of the organization during the integration. They also perceived senior leaders were not fully engaged and committed to the integration process and the decisions they had made, and when they got push back from the acquired company, they just let them have their way rather than deal with the problems. Participant 4 stated, "The project lacked the required support of the senior leaders...none of the synergies that would have been realized from the elimination of one ERP system was lost...it turned into a game of wills with the overall company being the biggest loser." Participant 10 stated, "I think a lot of times leaders really don't want to think about this, and they want business as usual; they haven't committed to merging the companies together and becoming one...that filters down to every level of the organization." Participant 13 stated, "We still haven't consolidated nearly as much as we should have...leaders wouldn't commit to stick by their decision...when members of the acquired company started complaining about having to change, the leadership caved and let them have their way." Participant 11 stated, "At this point, we had advised the leaders that the people from the acquired company were purposefully trying to kill the system integration project and all we got was deaf ears and no support from our leaders."

Vision was a concern for three participants (21.4%, Participants 2, 3, and 14). The participants perceived that the acquiring company lacked a well defined vision and a well

thought-out roadmap to enable achieving the vision. Instead, the perception was the leaders were arrogant and unwilling to listen to any ideas from members of the acquired company; this perception was shared by some of the members of the acquiring company. Participant 3 stated, “We, the acquiring company’s leaders, were arrogant; we thought we knew it all. We came in and started breaking up departments that had been working together well for years. We cut loose some folks that we should not have.” Participant 14 stated, “The leaders of the company should be guiding the company and all of its employees down a path that will ensure the company vision will be achieved.”

Flexibility was a concern for two participants (14.3%, Participants 8, and 12). The participants’ perception was that the acquiring company’s leaders were unable to take advantages of opportunities due to the rigidity of their leadership style. At a time when the company leaders needed the flexibility to become change masters, they held on to their old ways. Participant 8 stated, “When the decision was made to go to the acquired company’s ERP system it was...get on the train or get run over. Instead of taking time and doing it right, they were in a hurry to get it done.” Participant 12 stated, “They were very rigidly structured and expected their employees to do their job as stated. At this point in time, we all need to embrace change and be change masters.”

Accountability was a concern for two participants (14.3%, Participants 2 and 11). The participants’ experiences demonstrated that leaders of the company were not held accountable for their actions. In some cases, the leadership pushed the decision making down to the people who reported to them so that if something went wrong it would not be their fault; they would just fire the person who was forced to make a decision.

Participants also perceived that some leaders were not fully committed to the company and they were preparing for their next employment opportunity. Participant 11 stated, “Some leaders are afraid to make a bad decision, but some seem to be looking for their next adventure; some leaders are looking to make a mark so they are promoted up the corporate ladder or find other employment.”

Communication was a concern for six participants (42.9%, Participants 1, 5, 6, 7, 8, and 9). Participants perceived a lack of communication from leadership. In the instance of one acquisition, the lack of communication resulted in the acquired company still operating on its own ERP system and a loss of any synergy that could have been achieved. Participant 1 stated, “Leaders sometimes do not realize that their decisions drastically affect the lives of the people who work for them. We were blindsided with the news that we were migrating to the system of the acquired company.” Participant 6 stated, “The leadership team does a very poor job of communicating to the facilities about the direction they want to go as well as a clear directive of the type of organizational culture they would like for the company.” Participant 8 stated, “Leadership’s inability to communicate what their plans were for the integration of the second acquisition caused the project to stall for an extended period and ended up being only a minimal integration that left them on their ERP system.”

Organizational culture factor findings. Interview question 4 focused on the interviewee’s perception of the relationship between organizational culture and entropy. All 14 participants (100%) experienced entropy as a result of organizational culture. The

participants' responses were grouped into four themes: (a) public v. private, (b) old school culture, (c) resistance to change, and (d) cultural pride.

Public v. private was a concern for 10 participants (71.4%, Participants 1, 3, 5, 7, 8, 9, 10, 12, 13, and 14). Participants perceived the clash of publically owned acquiring company and privately owned acquired company as one of the hardest cultural difference with which to contend. Participant 5 stated, "The difference in organizational cultures was striking. The publically held company acquired a privately held company which had employees that had worked for this organization their entire lives...they didn't know how a publically traded company functioned." Participant 7 said, "From a cultural standpoint, the acquired company was a private company and acquiring company was a public company. There are different requirements for both types of companies." Participant 10 stated, "As we have seen, although we are in the same type of business, the culture differs greatly from organization to organization. Especially when it's a privately held organization and the other is a publically held organization." Participant 13 stated, "There were differences in the organizational culture from us and the acquired company. Not only were they privately held and we were publically traded, they were almost completely focused on retail sales where we were mostly focused on wholesale with a medium sized retail side."

Old school culture was a concern for four participants (28.6%, Participants 2, 9, 11, and 12). Participants' perception of the acquiring company's culture was that it was a very old school, chain of command culture. In addition, the culture was riddled with red tape that stifled creativity and collaboration. Participant 2 stated, "The acquiring

company's culture was 'get it done or get out of the way.' The man that drove all this is no longer here, but during his time, he was a tyrant who managed by fear, loathing, and ego." Participant 9 stated, "The organization cultures of the first acquisition differences were huge...because of their old school mentality, and the fact that they liked to go around and beat their chests, and stroke their egos." Participant 11 stated, "During the first acquisition the corporate culture was more of a strict chain of command, arrogant culture, which required a person to go through the chain of command to get information."

Resistance to change was a concern for five participants (35.7%, Participants 1, 2, 4, 10, and 14). Participants' perception of resistance to change came from the acquired company's employees not embracing the practices and policies of the acquiring company. In addition, after the decision was made to migrate the acquiring company to the acquired company's system platform, the resistance was two-sided. Participant 2 stated, "Organizational change is difficult. The integration efforts were met with a lot of resistance from the acquired company...when the platform of the acquired company was chosen over the company's current platform...then the resistance came from both sides." Participant 14 stated, "There was a clash of cultures...they were just so scared that their world was going to change. It really got to be an *us versus them* kind of situation."

Cultural pride was a concern for four participants (28.6%, Participants 6, 8, 12, and 13). Participants' perception of cultural pride resulted from being told that they needed to move off the system that they had expended time and effort building; they were proud of the system they had created and the culture they had built for their organization. The two organizations had been rivals for many years and it seemed almost impossible to

suddenly think of them as part of their team. Participant 8 stated, “With our first acquisition, the company had been one of our archrivals for many, many years. Suddenly thinking of them as part of the team was almost impossible.” Participant 12 stated, “With the second acquisition, a new management crew had come in and turn the company around. Because the management team is still intact, there was a feeling of ownership and pride associated with their business model and their systems.”

People factor findings. Interview question 6 focused on the interviewee’s perception of the relationship between people and entropy. All 14 participants (100%) perceived people as a contributor to entropy. The participants’ responses were grouped into six themes: (a) attitude and conflict, (b) buy-in, (c) empowerment, (d) leadership, (e) trust, and (f) resistance to change.

Attitude and conflict were concerns for five participants (35.7%, Participants 3, 7, 9, 11, and 14). Participants’ perception of attitude and conflict was based on strained relationships between the acquiring and the acquired personnel, the differing cultures, personality conflicts, and people on both sides of the acquisition who had not bought in to the integration changes. Participant 3 stated, “The relationship between people from the two acquired organizations and the acquiring company management was a real source of entropy. Working relationships were difficult and strained. I felt outnumbered and on the defensive all of the time.” Participant 9 stated, “The relationship between people and entropy was directly related to the arrogance and old school management style of the people who came from the acquiring company. Most of them are not with the company anymore.”

Buy-in was a concern for two participants (14.3%, Participants 1 and 5). Participants' perceived a lack of buy-in from individuals from both sides of the acquisition. One problem was the feeling from members of the acquired company that the leaders from the acquiring company could not be trusted and that every change had to be scrutinized to determine if they were up to something. Participant 5 stated, "At first there were some real conflicts between the personnel between the two organizations. There were opposing expectations from the two sets of people."

Empowerment was a concern for three participants (21.4%, Participants 6, 8, and 11). Participants perceived the employees from the acquired company from one acquisition were just not adequately intelligent because they did not have the corporate image that was expected of them. As a consequence, the participants felt the people from the acquired company were not empowered to perform to the best of their ability; they felt their input was neither needed nor appreciated. Participant 8 stated, "They don't lift up those people who have excelled. There is an annual award that is given to one project and the people who worked on that project."

Leadership was a concern for four participants (28.6%, Participants 1, 8, 11, and 12). Participants from the acquiring company perceived a lack of support and appreciation from their leaders. They felt they had been betrayed when the decision was made to move the corporate offices. Participants from both sides of the acquisition perceived a lack of leadership ability to promote a combined organizational culture; instead they turned a blind eye to the in-fighting and posturing that was killing productivity. Participant 1 stated, "I had given up a lot moving over a thousand miles

away from my friends and family in order to continue working for the company. It was not an easy decision and I felt like my sacrifice meant nothing to my boss.” Participant 8 stated, “The relationship was strained and the leaders did not do a super job of trying to assimilate people from both organizations.”

Trust was a concern for four participants (28.6%, Participants 4, 10, 11, and 12). Participants described the issue of trust in terms of not trusting the members of the acquiring company due to the potential loss of their jobs. During the integration process, new people were added to the organization; the participants tended to distrust until proven trustworthy rather than trust until proven otherwise. Participant 4 stated, “The stress of not knowing whether their job is secure-- their family’s livelihood will be safe—brings distrust and other negative emotions to the situation.” Participant 11 stated, “We used to have upper management who cared and protected their people; I don't feel that way anymore.”

Resistance to change was a concern for two participants (14.3%, Participants 2 and 13). Participants on both side of the acquisition experienced resistance to change. The acquired organization's employees resisted the change imposed on their processes and procedures, and the acquiring organization's employees resisted because they were being forced to give up their system and platform to migrate to the acquired organization's system. Participant 2 stated, “There was a lot of resistance to the new changes on our side of the organization. The opposition on the acquiring company’s personnel for having to go to a new system was quite evident.

Strategy factor findings. Interview question 7 focused on the interviewee's perception of the relationship between strategy and entropy. All 14 participants (100%) perceived strategy as a contributor to entropy. The participants' responses were grouped into six themes: (a) lack of a comprehensive strategy, (b) vision, (c) unrealistic expectations, (d) synergy, (e) secrecy, and (f) commitment to strategy.

Lack of a comprehensive strategy was a concern for 6 participants (42.9%, Participants 4, 7, 9, 10, 12, and 14). There was a perception by many participants on both sides of the acquisition that leadership did not actually have a long term as well as a short-term strategy. Participant 4 stated, "No strategy means no goal, no defined steps, and results in chaos." Participant 7 stated, "I think the strategy was 'Hey we need to buy them, so we're going to buy them, and then we'll figure it out after the deal is closed'. If they had a strategy they didn't communicate it to anyone."

Vision was a concern for four participants (28.6%, Participants 7, 10, 12, and 13). Participants' perception of a lack of vision was driven partially by the old school mentality in addition to having leaders who had never been exposed to alternate methods for achieving the end goal of the company. In addition, there was a perception that the leaders had not given enough time during the discovery period to actually know how difficult it would be to integrate the two organizations. There was a general perception that none of the leaders actually had a good understanding of the big picture. Participant 7 stated, "We have talented people in the organization. However, some have no vision because they have only worked for one company. In addition, they have not taken any courses to keep themselves up to date with new methods and strategies."

Participant 10 stated, “Maybe there isn’t a big picture because there is no vision about where we are headed. Maybe the leadership members are not seeing eye-to-eye on what we are trying to do.”

Unrealistic expectations were a concern for 2 participants (14.3%, Participants 2 and 3). Participants’ perception of the integration process timeline was that it was too aggressive considering the complexity of the project. The time period in which one of the integration efforts was done was during a time of federal regulation changes and new product launches. Participant 2 stated, “There was a lot of disarray in the way things were planned out. It felt like there was an unnecessary expedience to the process.” Participant 3 stated, “We had strategy, but it was too big too fast. It appeared that we can do everything at one time and we should have done a lot more than we did. We did not execute it right.”

Synergy was a concern for 2 participants (14.3%, Participants 7 and 9). Participants experienced a great deal of expectation from upper management for huge synergies without having a plan to leverage synergies. Participants felt that the synergies that could have been leveraged were not; especially any type of synergies from the second acquisition. Participant 7 stated, “I don’t think they really did their due diligence very well. With our second acquisition, they have been so hands off that none of the synergies have been realized.”

Secrecy was a concern for six participants (42.9%, Participants 1, 5, 6, 8, 11, and 12). Participants experience a high level of secrecy that ended up affecting the productivity of the company. Most participants acknowledge that a certain level of

secrecy is necessary especially prior to announcing the company's intention of purchasing another company, especially when the company is publically traded. Participant 1 stated, “The company strategic plans were kept very confidential. It was like waiting for the axe to come down and chop you off the team. Not knowing what the company’s strategy was unnerving as well as painful.”

Commitment to strategy was a concern for two participants (14.3%, Participants 9 and 11). Participants perceived an inability for leaders to commit to their strategy. Participants experienced a lack of commitment by leaders to make the tough call when necessary and achieve all of the synergies that had been promised to their stakeholders. Participant 9 stated, “In our second acquisition, the strategy was to consolidate as much as possible and to take advantage of the synergies available after the acquisition. When individuals from the acquired company complained, our leaders caved to avoid conflict.” Participant 11 stated, “You could see the smirks on their faces during the migration sessions; they knew they could artificially drive the costs so high, that they would be safe and stay on the antiquated system that only they could support.”

Research Sub-question 2. Interview questions 3, 4, 5, 6, 7, and 8 centered on eliciting participants’ lived experiences concerning the research sub-question 2, “What entropic relationships exist among postmerger and postacquisition integration factors?” All 14 participants responded to the interview questions. All 14 participants perceived the 5 entropy factors of communication, leadership, organizational culture, people, and strategy to be interrelated. The consensus was that leadership would be the driving force behind the other factors. Leadership establishes the organizational culture, sets the

strategy, determines the level of communication, and sets policies that guide the hiring of the company's workforce.

Participants' perceptions of *communication* and entropy were grouped into 4 categories: (a) two-way communication, (b) quality of communication, (c) lack of communication, and (d) honest, timely communication. Two-way communication was a concern for two participants (14.3%, Participants 3 and 13). The effects of not having two-way communication resulted in distrust, misunderstandings, and suspicion on the part of the employees that feel they have no voice in the process. Quality of communication was a concern for six participants (42.9%, Participants 1, 5, 6, 9, 10, and 12). Incomplete or inaccurate communication became a source of anxiety, frustration, and a sense of abandonment by the leadership of the company. There existed a perception that some managers were withholding information because of control issues. The perception was that IT was usually the last to know about any initiative; meetings were held without an IT presence, and decisions were made, and IT found out when it was too late to take appropriate action to ensure the company's infrastructure would support current and future endeavors. Lack of communication was a concern for five participants (35.7%, Participants 1, 2, 8, 11, and 14). Participants experienced a lack of communication, which resulted in stalling initiatives and a reduction in synergies. Decisions were being made that affected all locations without any input from anyone from the locations. Honest, timely communication was a concern for four participants (28.6%, Participants 2, 4, 7, and 11). Participants described the communication during integration as cryptic, confusing, and at times suppressed altogether. Some experienced

delayed or dishonest commutation resulting from some company members' private agendas.

Participants' perception of *leadership* and entropy was grouped into 5 categories: (a) engagement and commitment, (b) vision, (c) flexibility, (d) accountability, and (e) communication. Engagement and commitment was a concern for four participants (28.6%, Participants 4, 10, 11, and 13). Participants experienced the perception that the integration effort was not fully supported by the senior members of the organization during the integration. There was also the perception that senior leaders were not fully engaged and committed to the integration process and the decisions they had made, and when they got push-back from the acquired company, they just let them have their way rather than deal with the problems. Vision was a concern for 3 participants (21.4%, Participants 2, 3, and 14). The participant's perceived that the acquiring company lacked a well defined vision and a well thought-out roadmap to make that vision achievable. Instead, the perception was the leaders were arrogant and unwilling to listen to any ideas from members of the acquired company; this perception was shared by some of the members of the acquiring company. Flexibility was a concern for 2 participants (14.3%, Participants 8, and 12). The participants' perception was that the acquiring company's leaders were unable to take advantages of opportunities due to the rigidity of their leadership style. At a time when the companies needed the flexibility to become change masters, they held on to their old ways. Accountability was a concern for two participants (14.3%, Participants 2, and 11). The participants' lived experiences were that the leadership of the company was not held accountable for its actions. In some

cases, the leadership pushed the decision making down to the people who reported to them so if something went wrong it would not be their fault, they would just fire the guy who was forced to make a decision. Participants also perceived that some leaders were not fully committed to the company and they were preparing for their next employment opportunity. Communication was a concern for six participants (42.9%, Participants 1, 5, 6, 7, 8, and 9). Participants perceived a lack of communication from leadership. In the instance of one acquisition, the lack of communication resulted in the acquired company still operating on their own ERP system and the loss of any synergy that could have been achieved.

Participants' perception of *organizational culture* and entropy was grouped into four categories: (a) public v. private, (b) old school culture, (c) resistance to change, and (d) cultural pride. Public v. private was a concern for 10 participants (71.4%, Participants 1, 3, 5, 7, 8, 9, 10, 12, 13, and 14). Participants perceived the clash of publically owned acquiring company and privately owned acquired company as one of the hardest cultural difference with which to contend. Old school culture was a concern for four participants (28.6%, Participants 2, 9, 11, and 12). Participants' perception of the acquiring company's culture was that it was a very old school, chain of command culture. In addition, the culture was riddled with red tape that stifled creativity and collaboration. Resistance to change was a concern for five participants (35.7%, Participants 1, 2, 4, 10, and 14). Participants' perception of resistance to change came from the acquired company's employees not embracing the practices and policies of the acquiring company. In addition, after the decision was made to migrate to the acquired company's system

platform, the resistance was two-sided. Cultural pride was a concern for four participants (28.6%, Participants 6, 8, 12, and 13). Participants' perception of cultural pride resulted from being told they needed to move off the system they had expended so much time and effort building; they were proud of the system they had created and the culture they had built for their organization. The two organizations had been rivals for many years and it seemed almost impossible to suddenly think of them as part of their team.

Participants' perception of *people* and entropy was grouped into six categories: (a) attitude and conflict, (b) buy-in, (c) empowerment, (d) leadership, (e) trust, and (f) resistance to change. Attitude and conflict was a concern for five participants (35.7%, Participants 3, 7, 9, 11, and 14). Participants' perception of attitude and conflict was based on strained relationships between the acquiring and the acquired personnel, the differing cultures, personality conflicts, and people on both sides of the acquisition who had not bought-in to the integration changes. Buy-in was a concern for two participants (14.3%, Participants 1 and 5). Participants' perceived a lack of buy-in from individuals from both sides of the acquisition. One problem was the feeling from members of the acquired company that the leaders from the acquired company could not be trusted and that every change had to be scrutinized to determine if they were up to something. Empowerment was a concern for three participants (21.4%, Participants 6, 8, and 11). Participants perceived the employees from the acquired company from one acquisition were just not that bright because they did not have the corporate image that was expected of them. As a consequence, the participants felt that the people from the acquired company were not empowered to perform to the best of their ability; they felt their input

was neither needed nor appreciated. Leadership was a concern for four participants (28.6%, Participants 1, 8, 11, and 12). Participants from the acquiring company perceived a lack of support and appreciation from their leaders. They felt they had been betrayed when the decision was made to move the corporate offices. Participants from both sides of the acquisition perceived a lack of leadership ability to promote a combined organizational culture; instead they turned a blind eye to the in-fighting and posturing that was killing productivity. Trust was a concern for four participants (28.6%, Participants 4, 10, 11, and 12). Participants described the issue of trust in terms of not trusting the members of the acquiring company due to the potential loss of their jobs. During the integration process, new people were added to the organization; the participants tended to distrust until proven trustworthy rather than trust until proven otherwise. Resistance to change was a concern for two participants (14.3%, Participants 2 and 13). Participants on both side of the acquisition experienced resistance to change. The acquired organization's employees resisted the change imposed on their processes and procedures, and the acquiring organization's employees resisted because they were being forced to give up their system and platform to migrate to the acquired organization's system.

Participants' perception of *strategy* and entropy was grouped into six categories: (a) lack of a comprehensive strategy, (b) vision, (c) unrealistic expectations, (d) synergy, (e) secrecy, and (f) commitment to strategy. Lack of a comprehensive strategy was a concern for six participants (42.9%, Participants 4, 7, 9, 10, 12, and 14). There was a perception by many participants on both sides of the acquisition that leadership did not

actually have a long-term as well as a short-term strategy. Vision was a concern for four participants (28.6%, Participants 7, 10, 12, and 13). Participants' perception of a lack of vision was driven partially by the old school mentality in addition to having leaders who have never been exposed to alternate methods for achieving the end goal of the company. In addition, there was a perception that the leaders had not given enough time during the discovery period to actually know how difficult it would be to integrate the two organizations. There was a general perception that none of the leaders actually had a good understanding of the big picture. Unrealistic expectations were a concern for two participants (14.3%, Participants 2, and 3). Participants' perception of the integration process timeline was that it was too aggressive considering the complexity of the project. The time period in which one integration was done was a time when federal regulation changes had to be met and new product launches. Synergy was a concern for two participants (14.3%, Participants 7, and 9). Participants experienced a great deal of expectation from upper management for huge synergies without having a plan to leverage synergies. Participants felt that the synergies that could have been leveraged were not; especially any type of synergies from the second acquisition. Secrecy was a concern for six participants (42.9%, Participants 1, 5, 6, 8, 11, and 12). Participants experienced a high level of secrecy that ended up affecting the productivity of the company. Most participants acknowledge that a certain level of secrecy is necessary especially prior to announcing the company's intention of purchasing another company, especially when the company is publically traded. Commitment to strategy was a concern for two participants (14.3%, Participants 9, and 11). Participants perceived an inability for

leaders to commit to their strategy. Participants experienced a lack of commitment by leaders to make the tough call when necessary and achieve all of the synergies that had been alluded to their stakeholders.

Research Sub-question 3. Interview questions 9, 10, 14, 15, 16, and 17 centered on eliciting participants' lived experiences concerning research sub-question 3 "What other considerations or attributes comprise the entropy phenomenon in postmerger and postacquisition integrations?" Participants' perceived that there are positive impacts of entropy in addition to the negative impacts. The levels or states of entropy were perceived as being high and somewhat debilitating at times.

Participants' perception of the states or levels of entropy during postacquisition was the level was extremely high, running the full scale of negative emotions. None of the participants viewed the integration process as having little or no entropy. The states of entropy were equated by two participants (Participants 1 and 4) to the grieving process. Participant 1 stated, "I could equate it to sitting in a dunking booth. You know you are going to get hit eventually, but there's always the shock of the water when you are." Participant 2 stated, "The different levels can be characterized as nervous anticipation to complete and utter melt down." The driving force behind the high levels of entropy was weak leadership. Participants felt abandoned and betrayed by the leaders they had supported. Participant 3 stated, "There were coos, revolutions, and back-biting just to mention a few. The chaos got extremely high. On go-live everyone was so confused and weary that we probably could be classified with posttraumatic stress syndrome."

Participants' perceptions of negative impacts of entropy was wasted time and money, loss of productivity, damaged relationships, negative employee morale and sense of security, loss of talented people, missed opportunities, loss of customers, and the real dollar based cost to the company. Participant 2 stated, "People have lost their sense of company pride and self worth." Participant 3 stated, "The negative impact can be described as loss of market share, loss of profitability, loss of credibility, and loss of some valuable employees."

Participants' perceptions of positive impacts of entropy were forming new relationships with former enemies, feeling empowered by enduring and completing the project, building a stronger, more agile team, opening new opportunities for career growth, developing strategic thinkers, and it has made us a stronger company.

Other factor findings. Interview questions 16 and 17 focused on the interviewee's perception of factors other than communication, leadership, organizational culture, people, strategy that contribute to entropy during the postacquisition integration process. All 14 participants (100%) perceived strategy as a contributor to entropy. The participants' responses were grouped into six themes: (a) economy, (b) age, (c) middle management, (d) geography, (e) secrecy, and (f) commitment to strategy.

The economy was noted by two participants (14.3%) in terms of the economic climate in which the integration is being done. It is a very real factor due to the limitations of cash available if the integration is done in a period of economic downturn. Age was noted by one participant (7.1%) in terms of the number of years an individual has been in their current job. This participant reflected that staying with a company out

of loyalty or convenience may actually hurt an individual's ability to compete with younger, fresher IT personnel from companies that are being acquired.

Middle management was noted by one participant (7.1%) in terms of not having a vested interest in making the integration effort successful and could be a source of entropy by not providing complete, honest information to our leaders, which would enable them to make decisions that are good for the company instead of good for the individual. Participant 4 stated, "Middle managers who do not have a vested interest in seeing the integration project succeed may in fact subtly derail the integration in order to protect their world as they know it." Geography was noted by two participants (14.3%) in terms of not having the entire staff available when needed due to weather related issues and in terms of cultural differences between people from different regions of the USA.

Applications to Professional Practice

The study results may expand the knowledge available concerning change management applicable to postmerger and postacquisition information technology integration. The goal was to identify, understand, and reduce disruption and disorder between the leadership, middle management, and key employees during postmerger and postacquisition integration of information technology solutions. The study results revealed several areas in which management can make advance planning strategies to promote minimal entropy and maximize productivity during the integration of postmerger and postacquisition information technology integration.

Best Practices

Discovery period activities. There are several opportunities for reducing entropy when information pertaining to the potential acquisition is discovered prior to the acquisition. Although access is usually limited, as much information that can be gleaned, will aid in the integration planning and execution. These opportunities are (a) systems platform and infrastructure compatibility, (b) database compatibility, (c) organizational culture compatibility, (d) departmental structure and relationships, (e) quality of the working relationships between mid-level and upper level management, and (f) identify key personnel and talent.

Systems platform and infrastructure compatibility. As a part of the discovery period prior to the acquisition, the information technology systems should be given more than a cursory look. The platform as well as the software choice of the potential acquisition should be thoroughly considered in terms of compatibility with acquiring company's platform and software. The ability to easily communicate between the two facilities is critical. The less compatible the two platforms and infrastructures are the higher the investment will be to link the two. The similarity of the software solution is also critical to easing the integration effort and cost. The knowledge of the amount of software that has been written or customized by the potential acquisition's personnel will be a precursor to the amount of resistance to change that will be met during the integration process. Personnel have developed systems in-house or have highly customized purchased software have a sense of pride and ownership in the systems they have created. The amount of push-back and negative emotions should be anticipated and

planned accordingly. Mitigating damage before it is done will enable the project to complete on schedule with more buy-in from merger survivors from the acquired company.

Database compatibility. The type of database should be investigated. If the company is using a proprietary database, the options for interrogating the data will be limited. Most mainstream database solutions have the ability to interrogate data from other relational databases. The ability to share data directly will simplify the merging of data in the period after the acquisition is finalized and prior to the integration process.

Organizational culture compatibility. The true organizational culture should be determined in order to analyze the cultures to determine the potential level of postacquisition culture clash. Determine the true culture as opposed to the culture that is stated on the company web site or in its vision and mission statements. There are companies that purport to be agile, empowering, and other enlightened culture types, but under the covers the assessment does not match reality. Rather than saying 'our employees are our greatest assets', really mean it and put it into practice.

Departmental structure and relationships. Determine the departments in the company that have a collaborative relationship and ensure the relationship is maintained postacquisition. Breaking apart collaborative relationships will hinder efforts to achieve a successful acquisition.

Quality of managerial working relationships. Determine the quality of the working relationships between the various levels of management. The good relationships

should be maintained and the strained relationships should part of an immediate improvement initiative postacquisition.

Key personnel and talent. Identify key personnel and talented people in the potential acquisition's organization and make plans to ensure that these people are retained. Part of the assets of an organization is its people; an acquisition is not just about buying technology or market share.

Postacquisition activities. There are several opportunities for reducing entropy when activities that are typically the cause of entropy are well planned, well communicated, and well executed. These opportunities are (a) honest, timely communication, (b) strong leadership, (c) creating a blended organizational culture, (d) developing an over-arching strategy, and (e) dealing with people problems timely and fairly.

Honest, timely communication. Communications with regard to merger activities should begin early in the process. Transparency and open communications may help alleviate some anxiety among employees and possibly prevent negative rumors.

Strong leadership. Employees may be more accepting of changes when management demonstrates a clear commitment to the postmerger integration. Top-down support for the merger may help gain support of the employees and minimize the resistance to change.

Blended organizational culture. Early identification of organizational culture differences and taking steps to blend the cultures may help prevent conflict that could be detrimental to the merger process. Talking to employees about differences in

organizational culture and involving them in developing a plan to blend the organizational cultures may help prevent a culture clash. Leadership must clearly define the preferred culture for an organization and follow-up with personal actions that reinforce the culture.

Over-arching strategy. An over-arching strategy may help assure that the merged business units are a good strategic fit. The over-arching strategy should identify benefits of the merger as well as possible challenges that will be faced.

People problems. Failure to address any of the postmerger activities could result in people problems. Employees that feel they have been left out of the merger process may respond by withholding their support. This could result in problems for the merger process or loss of key personnel.

Implications for Social Change

M&As are among the most common corporate growth strategies (Chakravorty, 2012). Borchert and Cardozo (2010) referred to mergers as creative destruction and creative combination. Many companies downsized after September 11, 2001. Merger and acquisition activity, however, has been on the increase for the last several years. It is likely that individuals at all levels of an organization experience the effects of their organization's acquisition by another organization and the stress and disorder that accompany the integration process (Chakravorty, 2012). The success of a merger depends upon a process of mutual adjustments and acculturation (Marks & Mirvis, 2011). Identifying best practices for leaders of both organizations during the integration process potentially will reduce the intensity and length of the disorder, and improve the job

satisfaction level of merger survivors. A merger is not just about market share or technology; it is also about the people who work for both organizations. Reducing the entropy experienced during the integration efforts will allow people to be seen in a positive light and increase the potential of new career opportunities for people from both organizations. The possibility of career advancement allows people to focus on the future possible outcomes of all their hard work and effort. Mergers also open up the opportunity for educational advancement. In addition, creating a blended organizational culture will insure the sustainability of the organization (Marks & Mirvis, 2011). A stable organization will be in a position to provide secure jobs and fund programs for the enrichment of employees and the communities in which they have a physical presence as part of the corporate social responsibility actions of the organization.

Recommendations for Action

Based on analysis of the data, 35 major and 80 minor entropy factors associated with mergers were identified. The entropy factors appeared to be interrelated. Therefore, a change in one entropy factor was likely to affect other entropy factors. The primary recommendation for action is creation of a merger team, prior to commencement of merger activities, which will be responsible for creating a comprehensive merger plan. The team should be cross functional, with members from all departments. Communications issues are inherent in several of the 35 major entropy factors. Therefore, the next recommendation for action is to establish a protocol for open and transparent communications between the merged business units and with all employees. The next recommendation for action is that managers at all levels should be aware that

non-commitment to the merger integration would be detrimental to the overall success of the merger and the organization. Any philosophical or strategic differences should be settled prior to the integration effort; the time for debate is during the discovery phase, not the integration phase. The integration plan will evolve as the integration progresses as a result of oversights and identification of new opportunities. Management should demonstrate complete support for the merger integration efforts and be a change masters instead of enabling behavior that, in effect, sabotages the integration. The next recommendation for action is that employee relations management, during the merger process, should include organizational culture integration. The study results demonstrate the negative effects of organizational culture clash. The upper management of an organization is responsible for determining the organizational culture of the company, either by policy or as a result of their own behavior. Creating a blended organizational culture will insure the sustainability of the organization (Marks & Mirvis, 2011). The old school method of stating that nothing will be changing is untrue; the one that that is true when a merger is completed is that everything is going to change. Employees should be informed about changes prior to and during implementation. An employee education program should be implemented prior to the integration process to provide timely, honest information about the merger, including benefits as well as challenges. The possibility of career advancement should be communicated as one of the possible benefits. This allows people to focus on the future possible outcomes of all their hard work and effort. Another benefit that should be communicated is the opportunity for educational advancement. The results of this study should be of interest to anyone contemplating, or

involved in a merger or acquisition. The findings of this study will be disseminated through trade journals, or industry publications.

Recommendations for Further Study

Further research on entropy factors in postmerger and postacquisition integration from various perspectives is recommended. This study was from an Information Technology perspective in a manufacturing environment. Further study is necessary to determine if similar entropy factors exist in different operational environments. Identification of similar entropy factors during merger activities in diverse settings could indicate that may be possible to create a single effective merger strategy framework. Such a merger strategy framework basic plan, combined with situation specific details, could help improve the chances for a successful merger process. This study used a phenomenological qualitative approach. Additional studies, using a mixed-methods approach could be provide valuable insight. A mixed-methods approach could be used to examine the perceptions of the participants and analyze the quantitative data to evaluate the success of the merger process.

Reflections

This phenomenological qualitative study was performed to identify entropy factors that may have a negative effect on the mergers and acquisition process. The study involved the collection of data about the perceptions and lived experiences of IT professionals in a manufacturing business environment. I am an IT professional and have been involved in 2 mergers as an employee of the acquired company. The experiences gained during these two mergers formed the catalyst for selection of the study topic.

Previous experience with the merger process also increased the possibility of personal bias affecting the research. Preconceived ideas and values that could introduce bias into the study were identified. Recognition of preconceived ideas and values was necessary in order for me to maintain vigilance against introducing bias. The data collection method used in the study was selected because it contained elements that helped minimize the introduction of researcher bias. Body language and tone of voice could affect the participants' responses. Practice interview sessions were conducted with non-participants and feedback was solicited in order to reduce the chances of introducing bias. Measures were incorporated throughout the data collection and analysis process to prevent bias. I had experienced the effects of entropy during mergers. The previous ideas about the effects of entropy on the mergers process were reinforced by the study results. Additional studies into merger dynamics may provide the tools to increase merger success rates both in terms of increased shareholder value and employee satisfaction. I look forward to participating in future studies that will increase the knowledge base and improve understanding of the mergers and acquisition process.

Summary and Study Conclusions

M&As represent an important part of the business world. The reasons for M&As are varied. This tactic may be used to gain competitive advantage, increase shareholder value, leverage synergy, or for continued survival of the company. Whatever the reason, M&As effect and are affected by the employees. This study was conducted to examine the effects of entropy on a merger from the perspective of mid-level and first-line management in a manufacturing business environment. This study was guided by one

central research question: *What is the nature of entropy in postmerger and postacquisition integrations?* I used three sub-questions research questions to explore the entropy phenomenon:

1. What is the relationship between entropy and the five postmerger and postacquisition integration factors?
2. What entropic relationships exist among postmerger and postacquisition integration factors?
3. What other considerations or attributes comprise the entropy phenomenon in postmerger and postacquisition integrations?

Data were collected using interview questions from a similar study, with permission from the owner. NVivo 9 software was used to analyze the data. The results indicated that 35 major entropy factors and 80 minor entropy factors existed in the study population. The information gained from this research into the perceptions and lived experiences of IT professionals provides valuable information into the effects of entropy on the merger and acquisition process. This research would be useful to managers responsible for merger and acquisition activities to help provide an understanding of the effects of entropy on the process. Merger and acquisition managers may use the data from this research to put measures in place to help mitigate the effects of entropy during the merger process. The number and variety of entropy factors identified during this research suggests that additional research in different business settings would add significantly to the body of knowledge and increase understanding of the entropy factor

in the merger process. Added knowledge about the extent of entropy and the effects on mergers outcomes may increase the chances for achieving the desired results.

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Appendix B: Participate Demographic Questions

Participant Identifier: _____

Instructions: Please respond to each of the following demographic questions:

1. Sex Male _____ Female _____

3. Current/most appropriate level of position: First-line Manager (Supervisor) _____

Mid-level Manager _____

4. Does your job require interface with the company computer systems Yes__ No__

5. Number of merger or acquisition integrations involved with _____

6. Have you served as a merger or acquisition integration manager: Yes _____ No_____

7. Experienced in which merger and/or acquisition aspect: Acquiring____ Acquired____

Both_____

8. Currently, or in the past, worked directly or indirectly for the researcher: Y__ N__

9. Currently, or in the past, the researcher worked directly or indirectly for you: Y__ N__

Appendix C: Letter of Consent

CONSENT FORM

You are invited to take part in a research study of the nature of the entropy (i.e., disorder, distrust, frustration) phenomenon in postmerger and postacquisition integrations of Information Technology (IT) solutions. The researcher is inviting first-line and midlevel managers who have significant interaction with the information technology (IT) system and have experienced postacquisition integration of IT to be in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Gloria S. Williams, who is a doctoral student at Walden University. You may already know the researcher as a business analyst in group IT, but this study is separate from that role.

Background Information:

The purpose of this study is to explore the nature of the entropy (i.e., disorder, distrust, frustration) phenomenon in postmerger and postacquisition integrations of Information Technology (IT) solutions through the lived experiences of the study’s participants.

Procedures:

If you agree to be in this study, you will be asked to:

- Complete a short demographic questionnaire.
- Participate in a private, confidential interview, approximately one hour in length, focused on sharing your experiences and views of entropy during postmerger and postacquisition integration of IT solutions. The interview will focus on the integration factors of communication, organizational culture, leadership, people, and strategy. This interview will be audio recorded.
- Review the transcription of the interview provided to you.
- Approve or make corrections to the transcription of the interview.

Here are some sample questions:

18. Please describe how you would characterize the nature of entropy during postmerger and postacquisition integration.
19. What specific experiences drive your views of entropy during postmerger and postacquisition integration? Please provide examples.
20. What is the relationship between communication and entropy during postmerger and postacquisition integration? Please provide examples.
21. What is the relationship between organizational culture and entropy during postmerger and postacquisition integration? Please provide examples.
22. What is the relationship between leadership and entropy during postmerger and postacquisition integration? Please provide examples.

23. When considering communication, organizational culture, leadership, people, and strategy, how would you describe the relationship among these factors in terms of entropy during postmerger and postacquisition integration? Why?
24. How would you characterize different states or levels of entropy during postmerger and postacquisition integration?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at your organization will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind during or after the study. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue, becoming upset, or stress. Being in this study would not pose risk to your safety or wellbeing.

There are no specific benefits resulting from your participation in this study. However, identifying best practices for leaders of both organizations during the integration process potentially will reduce the intensity and length of disorder and disruption, and improve the job satisfaction level of merger survivors. In addition, creating a blended organizational culture will insure the sustainability of the organization. A stable organization will be in a position to provide jobs and fund programs for the enrichment of employees and the communities in which they have a physical presence.

Payment:

There is no compensation resulting from your participation in this study

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. When the interview transcription is approved, the audio recording of the interview will be permanently erased. Data will be kept secure by storing electronic data in a password protected folder on the researcher's home computer. Any non-electronic data will be stored in a locked filing cabinet located at the researcher's residence with a single key kept in a separate location with access only by the researcher. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email gloria.williams1@waldenu.edu or by phone 931 206-0234. Using our work email address is discouraged due to access by the network administrators. If you want to talk privately about your rights as a participant, you can

call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University's approval number for this study is 11-21-11-0185187 and it expires on 11-21-2012.

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant

Date of consent

Participant's Signature

Researcher's Signature

Appendix D: Ethical Checklist

This ethical checklist will be reviewed periodically and updated if necessary to ensure the ethical integrity of the study (Creswell, 2008):

1. Review the interview questions to determine if they are free of bias and do not contain leading questions
2. Receive approval by IRB to use interview instrument
3. Each potential participant will be given a brief overview of the study which will include the purpose of the study, expected study duration, the study interview procedures, and the findings reporting.
4. Each potential participant will be informed that withdrawal from the study before the start or during the study is acceptable and the anticipated consequences of early withdrawal will be discussed with them in an informative manner.
5. Each individual will be asked to voluntarily fill out a demographic information form in order to be considered as a possible study participant.
6. Selection of participants are to be based on a purposive sample of individuals who held mid-level or first line managerial positions during a postmerger or postacquisition integration of information technology solutions for a United States manufacturing company.
7. Each individual selected will sign and date a consent letter to be interviewed document which plainly states that participation in the study is strictly

voluntary and will ensure that the participant's nor their company identity will not be revealed in the study or verbally to any individual or organization.

8. A snowball sampling technique will also be used in this study. Study participants will be asked if they know of any other managers that fit the study participant requirements who would like to volunteer to be a participant. These individuals will be required to return the demographic questionnaire and the consent to be interviewed form.
9. All research documents and electronic backup disks will be stored in a locked cabinet in which the researcher is the only individual with the key.
10. All electronic documents will be stored in a password protected folder in which the researcher is the only individual with the password.

Appendix E: Interview Checklist

This script will memorialize the date, time, location, and the participant number.

1. State the date and time.
2. State the participant number.
3. Give a brief summary of the study.
4. Ask the participant if they have any questions about the interview process.
5. Restate that participation in the study is voluntary and that they can stop the interview at any time.
6. Begin interview using the 17 question interview instrument.
7. End interview.
8. Thank participant for participation in the study and state that a transcript of the interview will be provided within a week for review and correction.
9. Ask the participant if he/she would like to recommend another individual to be interviewed. If yes, collect additional participant information.
10. State the participant number and the ending date and time of the completed interview.

Appendix F: Minor Entropy Descriptors

Descriptor	#	Category	Descriptor	#	Category
Abandoned	2	Feeling	Hostile	2	Environment
Adversarial	1	Environment	Inadequate	1	Feeling
Aggravation	2	Feeling	Inefficient	2	Environment
Agitated	3	Feeling	Insecure	2	Feeling
Angst	1	Feeling	Intimidated	1	Reaction
Animosity	3	Feeling	Intolerable	1	Feeling
Annoyed	2	Reaction	Irate	1	Feeling
Anxiety	3	Reaction	Irritating	2	Feeling
Apprehension	3	Feeling	Loathing	1	Feeling
Argue	1	Reaction	Misery	1	Reaction
Avoidant	1	Reaction	Nervous	2	Feeling
Belittle	1	Environment	Nightmare	3	Environment
Betrayal	3	Feeling	Obstinacy	1	Reaction
Bickering	1	Environment	Overwhelmed	3	Feeling
Blindsided	1	Feeling	Panic	3	Reaction
Bullied	1	Feeling	Reluctant	3	Reaction
Cancerous	1	Environment	Scary	3	Environment
Confrontation	1	Environment	Stifled	1	Feeling
Consternation	3	Environment	Stunned	1	Feeling
Damaged	2	Feeling	Tension	1	Feeling
Despair	2	Feeling	Terrified	1	Feeling
Disappointment	3	Feeling	Threatening	3	Environment
Disarray	1	Environment	Toxic	1	Environment
Discontent	1	Feeling	Traumatic	1	Feeling
Disenchanted	1	Feeling	Turbulence	1	Environment
Disenfranchised	1	Feeling	Unappreciated	3	Feeling
Disgruntled	1	Reaction	Uncertainty	2	Environment
Disgust	2	Feeling	Unhappy	3	Feeling
Disillusioned	3	Feeling	Unproductive	2	Environment
Disjointed	1	Feeling	Unsatisfying	1	Reaction
Disloyalty	1	Reaction	Unsettling	1	Environment
Disorder	1	Environment	Unstable	2	Environment
Disorganization	1	Environment	Unsupported	1	Feeling
Displaced	1	Feeling	Unwilling	3	Reaction
Displeasure	2	Feeling	Upheaval	2	Environment
Dissimilar	3	Environment	Uprooted	1	Feeling
Distress	1	Feeling	Upset	3	Feeling
Dysfunctional	1	Environment	Violent	2	Feeling
Grief	2	Reaction	Worthless	1	Feeling
Helplessness	2	Feeling	Xenophobic	1	Environment

Appendix G: Literature Review Matrix

	Recent References (within last 5 years from anticipated graduation)	Older than 5 years References	Total
Books	8	2	10
Dissertations	3	1	4
Peer-Reviewed Articles	108	5	113
Web Pages	0	0	0
Other resources	0	0	0

Appendix H: Permissions to use Copyrighted Information

This study incorporated one copyrighted figure. This Appendix contains the permissions to use the copyrighted information. The permissions below are in the order that the information appeared in this study. Each permission request contained the figure number, description, citation, and any special requirements specified by the organization granting the permission.

1. Interview questions from Fish's 2007 doctoral study
2. Figure 1. Process-centric conceptual framework
Source: Fish, D. *A study of entropy in post-merger and post-acquisition integration* (D.B.A. dissertation). Publication No.AAT 3253109.

Original Permission Requests

August 14, 2011

Gloria S. Williams

Subject: Request for permission to use copyright material

Dear Ms. Fish,

My name is Gloria Williams, and I am a Doctoral student in Business Administration at Walden University. I am working on my dissertation titled, *Entropy in Postmerger and Postacquisition Integration from an Information Technology Perspective*. My research will be an extension of your late husband's 2007 doctoral study at the University of Phoenix titled, *A Study of Entropy in Post-Merger and Post-Acquisition Integration*. Dr. Fish sampled executive level management of service based organizations. My research will sample mid-level and first-line management of U.S. manufacturing organizations. As part of my study, I am asking your permission to use your late husband's interview questions as part of my study. In addition, I would like your permission to use, Figure 2 - Process-centric conceptual framework on page 16.

I was saddened when I learned of your husband's death. He will surely be missed by the academic and business community. I would greatly appreciate your permission to use the material requested from Dr. Fish's study. If you have any questions, please feel free to contact me at any time.

Sincerely,
Gloria S. Williams
DBA Student Walden University
gloria.williams1@waldenu.edu

Subject : Fish-Copyright
Date : Sat, Aug 20, 2011 05:53 PM CDT
From : Karen Fish <fish1@comcast.net>
To : Gloria Williams <gloria.williams1@waldenu.edu>

Dear Gloria Williams,
Yes, you may use the material requested from my husband's, Dr. Dean Fish, dissertation.
Thank you for asking permission to use the copyright material.

Best Regards,
Karen Fish

Curriculum Vitae

Gloria S. Williams

EDUCATION

Doctor of Business Administration 9/2009 – 2012

Walden University
Minneapolis, Minnesota

- Specialization: Information Systems Management
- Expected graduation December 2012

Masters of Business Administration 7/2008 – 8/2009

Bethel University, College of Business
McKenzie, TN

Bachelor of Science 4/1974

Middle Tennessee State University
Murfreesboro, TN

Computer Science

PROFESSIONAL EXPERIENCE

Business Intelligence/Data Analyst 9/2010 – Present

A.O. Smith Inc.
Ashland City, TN

Senior Programmer/Analyst 8/1996 – 9/2010

A.O. Smith Inc.
Ashland City, TN

Manager, Technical Services and MVS Systems Programmer 2/1994 – 4/1996

Acme Boot Company
Clarksville, TN

Manager, Operations and VM Systems Programmer 2/1990 – 2/1994

Acme Boot Company
Clarksville, TN

Programmer/Analyst 4/1981 – 2/1990

Acme Boot Company
Clarksville, TN

Systems Analyst 6/1977 – 4/1981

Tennessee Department of Human Services
Nashville, TN

Systems Analyst 1/1976 – 6/1977

Tennessee Department of Revenue
Nashville, TN

Engineering Assistant 1/1972 – 12/1974

Arnold Research Organization
Arnold Air Force Base, TN