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2009 ECONOMIC CRISIS, REVOLUTION, AND EFFECTIVE ADAPTATION

ABSTRACT

This paper cites literature concerning the topic of adaptation in business in relation to change programs. It covers the broad area of adaptation and the multi-dimensional perspective approached by researchers in the field and highlights the numerous questions and answers reached. It uncovers the central issues of debate in this area of research and the questions that remain unanswered. The paper focuses on crisis events as triggers for revolutionary change. It identifies the key characteristics of effective adaptation to meet the needs of this hostile environment. Two crucial areas lacking research are highlighted: the role of people in adaptation and the methodology used for effective implementation of radical change. Finally, it narrows the focus of this topic to the author's own research problem area and explains the reasons behind the relevance of this research.

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1. Introduction

The literature cited in this paper focuses on the business research topic of adaptation in business. It highlights that there are problems in the research area that are fundamental to understanding and applying effective change programs in organisations that lead to growth. The key problems discussed in this paper are:

1. The absence of a coherent theory for the process of adaptation
2. The absence of methodology for key change programs
3. The debate concerning evolution or revolution for adaptation
4. The difficulty of forecasting evolutionary process and hence the difficulty in selecting the appropriate change program for growth.
5. The problem of selecting the appropriate change program that best suits the need of the organisation.
6. The human role in the change process
7. The role of crisis as a trigger for revolutionary change

These areas will be examined in relation to the literature cited. Particular attention will be placed as to how these issues relate to the Australian business environment and identifying the elements that are unique to Australian business. This paper will provide a broad background by providing an historical overview of the research topic. It will narrow the topic by identifying the following:

1. The parent and related disciplines to the research area
2. Boundaries of the research problem
3. The parts of the research problem studied in previous research

Based on the findings from the literature review, the paper will conclude some of the key questions not answered in the research and specify the research problem area for the author's dissertation.

2. Historical Overview

The question of adaptation in business has become a major concern to researchers and practitioners in recent times. The rationale behind its importance lies closely with the rapidly changing environment expected in the twenty-first century. The central issues that have been cited in the literature concerning this newly changed environment¹ are

1. The end of Communism
2. A technological shift to Man-made Brainpower industries
3. A new demography--1.9 billion people have just entered into capitalist society
4. The emergence of a true global economy
5. An era without a dominant economic, political, or military power.

These changes in the environment are forcing organisations and industry to confront some major problems in the business world that are linked to their long-term survival. The question of survival

¹ The majority of the themes for the environment of the twenty-first century are derived from Lester Thurow's *The Future of Capitalism*.

will be used in this paper to mean growth and will adopt the biological notion of the Law of Spiralling Regression. This law concludes that growth is inherent in any organism for survival and that if the organism chooses not to grow then it will decline and eventually become extinct. This is because other organisms will overtake it, or that in this state it becomes impossible to maintain itself in a condition of equilibrium. The central concerns for organisations cited in the literature are:

1. The de-regulation of all industries and markets in the near future
2. The altered nature of competition
3. The abundance of information and the speed of technological advancement
4. The pace of change itself
5. New standards for price, quality, and service
6. The altered and unpredictable expectations of customers because of the above
7. The search for competitive advantage in this new environment

These concerns largely surfaced after the stock market crash of 1987 and the recession (depression) of the early 90's and now the global economic crisis of 2008/09. These three crisis points in recent history have jolted western capitalist societies into realisation that the environment has changed and that adaptation was now the order of the day. Playing under the same rules of a "new game" organisations have looked towards several researchers and scholars for the best strategy to play this "game". The "new game" is characterised by the need to rationalise work practices to meet the demands of large changes in the external environment. The old game focused on fragmentation and specialisation of work practices into tasks that would allow economies of scale as depicted in the prototypical pin factory that Adam Smith described in *The Wealth of Nations*, published in 1776. The reality today is that fragmentation leads to diseconomies of scale. The new game focuses on identifying processes as a whole rather than as fragmented little pieces. This logic can be traced back to a philosophical view of reality and the world as depicted in Zeno's paradoxes.² The central themes of this new game revolve around several notions:

1. Work needs to be coherent; organised around process rather than fragmented and task orientated
2. Jobs needs to be skill-based and generalist in nature
3. Structures need to be flexible and encourage innovation
4. Management needs to alter leadership style and strategies
5. Measurement system needs to be aligned to reward system
6. Values and belief system needs to be aligned to new environment-culture.

These issues clearly illustrate the need to change in order to survive for organisations. The question of change is multi-faceted in the literature cited and is often intertwined with several other facets of the topic, and rarely distinguished as such by the authors. This highlights the complexity of this topic and the need for further research to identify the various aspects of this topic. The key dimensions identified in the literature between the relationship of change and adaptation are explored through the following questions:

1. Which change process is best suited to the needs of the organisation?
2. Which change process to implement for adaptation?

² An interpretation of Zeno's paradoxes in Tawfik's *The Truth is Out There...The Paradox of Research* outlines the meaning of the paradoxes to be that if you allow reality to be successively divided into parts, you find yourself with insupportable paradoxes; so you must think of reality as a single individualistic one. Similarly Adam Smith's notion of the division of labour to achieve economies of scale has resulted in the paradox that fragmentation in fact leads to diseconomies of scale. Thus there is a need to view reality, business, and processes as an individualistic whole to avoid paradox.

3. What methodology is required for each change process?
4. When do organisations need to change?
5. Why and how do organisations change?
6. Who and how is involved in the change process?
7. What theory or model of change to use to understand adaptation?
8. What types of adaptation are there?

These questions are closely related and the chosen perspective for research is the only distinguishing factor amongst all these dimensions. There is debate centring around many of these issues and the main ones will be highlighted in this paper. As the paper begins to narrow on the central concern of the author, many of these issues will be explored because they are inter-related.

3. Parent and Related Disciplines

The parent discipline is business adaptation through utilisation of change programs. Whilst primarily the topic is business related, the topic spills over into numerous other disciplines: sociology, psychology, economics, history, political science, science (micro-biology/biology/physics), and philosophy. Some of these disciplines offer theoretical models which may be burrowed and adapted to suit the business environment. Four key disciplines have been identified in the literature to offer the business researcher a richer understanding of the topic:

1. Micro-biology
2. Biology
3. Psychology
4. Physics

Firstly, micro-biology offers scientific, empirical evidence of how organisms adapt to hostile environments. A study of pathogens reveals that when they enter a human body they are subjected to a foreign, hostile environment.³ These pathogens are able to adapt via regulation of virulence genes. There are three regulatory control mechanisms:

1. Mechanisms that increase the number of transcripts made from a particular gene or affect gene structure
2. Mechanisms that affect the number of transcripts made from a particular gene
3. Mechanisms that determine the amount of active gene product made from each transcript

Similarly, an interesting parallel drawn from micro-biology is the recent crisis in health due to pathogenic resistance to antibiotics. Antibiotics provide a hostile environment for pathogens disabling their capacity to colonise the human body. However, recently, pathogens have adapted to this hostile environment. There are three mechanisms of resistance:

1. Mechanisms that inactivate the antibiotic
2. Mechanisms that limit access to the antibiotic to its target itself
3. Mechanisms that alter the target itself.

³ The information derived from this section is based on discussions with Dr Gottlieb (head of micro-biology at Concord hospital) and the book by Sayers and Whitt titled *Bacterial Pathogenesis: a molecular approach*.

Resistance is achieved by either mutating existing genes or a new gene is acquired. The above examples of pathogenic adaptation provide the following conclusions to the business research area discussed in this paper:

1. There is no *single* way for adaptation in any environment
2. There are *multiple* ways to adapt to hostile environments
3. *Manipulation* of the current rules or *a new set of rules* is required for adaptation
4. *Change* from the current form is essential for adaptation

The micro level of micro-biology is crucial to understand the fundamental rules of adaptation. As organisms become larger they tend to become more complex and harder to analyse and so the study of pathogens (bacteria/virus) offers clear foundations to base our research on larger, more complex organisms--organisations.

From biology there is the Darwinian theory of evolution to explain the process of incremental change in organisms and the notion of punctuated equilibrium to explain radical and major change. From psychology there are several theories relating to understanding the process of change. The central categories are⁴:

1. The Life-Cycle theory
2. Teleological Theory
3. Dialectical Theory
4. Child Development Theory
5. Hybrid theories from all of the above

Finally, physics offers an understanding of how things change and evolve via Chaos theory. This theory espouses that pathways taken can not be predicted and lead to spontaneously created structures that seemingly emerge in a random manner. This randomness in itself has a hidden order-paradox.

These related disciplines offer theories and ideas which, when adopted to the topic of business organisation adaptation, provide a core foundation for understanding the principles for adaptation. The model used for my research will be from psychology and biology. I have selected Riegel's theory of child development to understand the nature of organisational adaptation and the notion of punctuated equilibrium from biology to understand the role of crisis in adaptation. Riegel's theory focuses on the crisis produced by asynchronies in the operation of life-cycle, teleological, dialectical, and evolutionary theory. The choice of a hybrid model of change is typical of research in this area. Van de Ven and Poole (1995) indicated that researches rarely adopt a change model in its purest form because there are often multiple motors of change operating at the same time and the choice of hybrid is largely based on the perspective of the research undertaken. The following section will focus on the research problem area.

4. Research Problem Area

As stated earlier there are many dimensions to this topic. The main problem area of organisational adaptation cited in the literature attempts to answer the following questions:

⁴ Van de Ven and Poole, *Explaining development and change in organisations*. Academy of Management Review, V20 (3), 1995 July

1. Which change programs are best suited to hostile environments?
2. Which strategies and structures to adopt?
3. The relationship between the environment, the organisation, and adaptation
4. The relationship between change programs and performance
5. The relationship between organisations and the industry they belong to
6. The relationship between change enablers (technology, entrepreneurship, people) and adaptation
7. The relationship between forces of change (changing social values, economic change, demographic shifts, government policy) and adaptation
8. The relationship between adapting to achieve competitive advantage and success
9. The role of co-operation and collaboration in adaptation
10. The question of evolution or revolution for adaptation
11. The pitfalls in adaptation and the reasons behind these failures
12. The relationship between maturity stage and size of an organisation and the appropriate change program for adaptation

The problem area of organisational adaptation is characterised by certain relationships between two or more independent variables. The key independent variables of this area of research are:

1. Structure
2. Strategy
3. Systems
4. Leadership Style
5. Staff
6. Skills
7. Culture
8. Technology
9. Empowerment
10. Reward systems
11. Size
12. Maturity level
13. Crisis events
14. Growth rate
15. Innovation
16. Process
17. Communication
18. Co-ordination
19. Loyalty
20. Commitment
21. Economies of scale
22. Policy
23. History
24. Resources

The manipulation of these variables by organisations leads to adaptation. There are degrees of success in adaptation and different rates of adaptation. The failure rate of adaptation can be viewed as a natural process that is an extension of the Darwinian notion of “survival of the fittest” in the constant battle for survival. This is a position that this paper will adopt. A change program is not doomed as a failure simply because organisations are unsuccessful when they attempt to implement

them. Often there are other fundamental reasons behind the failure at adaptation. Hammer and Champy wrote *Reengineering the Corporation* in 1993 which became a best seller. Many organisations adopted their principles, yet reengineering as a change program was largely unsuccessful in the 90's. Between 60% to 80% of all organisations that adopted reengineering have failed. The principles outlined in the manifesto by Hammer and Champy were sound and convincing and they still remain appropriate for the current environmental conditions because they focused around meeting the highly-competitive demands of the environment by organising work around processes rather than tasks. However, because no methodology was provided for reengineering and there was no theory as the basis behind the rationale for reengineering, the implementation was disastrous. Consulting groups placed young, inexperienced MBAs in organisations to provide advice regarding re-engineering processes and confused the message of reengineering to mean downsizing. Thousands lost their jobs whilst consultants made a fortune. There is sufficient evidence in 1996 to argue that downsizing did not improve long term growth.⁵ There are specific case studies in the literature that offer examples of successful change programs (these will be explored in the latter part of this paper. Most of these case studies can be grouped under the banner of "turnaround management"). The success and failure in organisational adaptation is an issue that has created a number of debates centred around the question of organisational adaptation. The primary issues of debate cited in the literature are:

1. Whether inertia or strategic choice characterises organisational adaptability to changing environments?
2. Whether organisations create their own turbulent environment or adapt to it? The view is that the environment and organisations are arbitrary and idiosyncratically related, not distinct entities
3. Focus should be on power relationships and rules of the game as opposed to structure for an understanding of organisational adaptation
4. Micro and macro levels of theory on adaptation and which level to operate on
5. How to approach change, what type of change is required, and what to focus the change around?
6. Whether it is better to change the structure and culture by re-educating people or replacing them altogether?

These areas of debate provide a direction into the research into organisational adaptation. By establishing boundaries around the research problem area the topic is narrowed and a well-defined research problem can be established

5. Boundaries of Research Problem.

My initial research problem was to examine how industries evolve and build a generic model for evolution. An examination of the literature highlights the difficulty of such an undertaking. Michael Porter in *Competitive Strategy* outlines that industries evolve in stages that range from birth to decline. Yet there are problems with defining what stage an industry is in, and that organisations within an industry can alter the development stage of an industry. Hence the life-cycle pattern of an

⁵ A survey conducted by the CFO Journal in 1995 found that 68% of senior executives were experiencing problems with re-engineering. The survey also concluded that cutting jobs had not necessarily improved profits. Over a three-year period, firms making redundancies had ended up with lower profit margins and a poorer return on assets and equity than equivalent firms that did not downsize.

industry does not always hold because industry evolution can take on so many paths. The evolutionary process takes industry from its initial structure to its potential structure. The primary forces in motion that drive the evolutionary process are innovation, technological developments, and identities of organisations and resources. Thus, industries can evolve in a variety of ways and at different speeds making it difficult to forecast industry evolution or to create a generic model for evolution. The conclusions to be drawn from the literature are:

1. There is no one way that industries evolve
2. The impossibility of any single model of evolution
3. Organisations influence industry evolution

Like humans, all industries mature differently and like pathogens, all industries adapt to their environment in a variety of ways. The challenge of this topic is to narrow an aspect of adaptation in business that will yield a meaningful and richer understanding of 'how' and 'why' questions. This will be achieved by placing boundaries around the dimensions of the problem area.

The first boundary placed is to restrict the research to organisations and not industry. The fundamental reason for this change is that industry is made of an interrelated system that is often complex and difficult to research adequately. Organisations are a step down in complexity and can be studied as a self contained unit. They belong to an industry but it is through their adaptation that they change the evolutionary path of their industry. Hence, industries need to be understood through the actions of the organisations that are part of them..

The second boundary is to isolate a particular stage of the development process of organisations and to research that exclusively. I have nominated to confine the area of research to only organisations that belong to a mature industry. Whilst it has been stated that it is often difficult to identify the stage of development of an industry there has been research that has been able to identify key characteristics of a maturing industry. Porter outlines these central characteristics:

1. Slowing growth means more competition for market share
2. Organisations in the industry are increasingly selling to experienced repeat buyers
3. Competition often shifts towards greater emphasis on cost and service
4. There is a topping-out problem in adding industry capacity and personnel
5. Manufacturing, marketing, distributing, selling, and research methods are often undergoing change
6. New products and applications are harder to come by
7. International competition increases
8. Industry profits often fall during the transition period, sometimes temporarily, and sometimes permanently
9. Dealers margins fall, but their power increases

By isolating this developmental stage we place a boundary around the type of organisational environment we are going to examine. The most appropriate environment for organisations existing within a mature industry is a hostile one characterised by an increasing level of crisis events. Based on the earlier discussion in the historical overview of the topic, the environment of the twenty-first century is anticipated as a hostile environment for most organisations. Economic growth, today, reflected in GDP has flattened out in most mature western economies, indicating that increased levels of competition have changed the climate for most industries. In order to survive in the twenty-first century organisations will have to renew their competitive advantage.

This choice of environment concurrently answers the question of relevance about my research topic. Single digit growth figures are common in most mature industries and many organisations have recently become the target of take-overs and mergers due to their vulnerability for future growth. The literature in this problem area is compounding and the interest is undeniable. An entire industry has evolved, in the shape of change consultants, out of the demand expressed by organisations. This demand has arisen from shareholder and portfolio manager pressure for consistent higher growth figures.

Organisations know they have to change to adapt, but often do not know how, as evident in the failure rate of implementation of change programs. Continual failure at attempts to adapt will result in the eventual extinction or merger of the organisation. As stated earlier failure is identified as a natural process of evolution. Research in this area can minimise the failure rate through contribution of new insights into the area of adaptation in business.

A further boundary is placed around the choice of hostile environment. I have nominated to examine the effects of this hostile environment in Australia; with particular attention to aspects of the Australian environment that will make this effect unique. Hubbard, Pocknee and Taylor (1996) identified key characteristics about the Australian business environment that made it unique to the overseas environment:

1. Central role of government
2. Role of public sector
3. Importance of industrial relations (enterprise bargaining, role of unions and centralised wage fixing—lower job flexibility in Australia)
4. Small market size
5. Remoteness—need to export for growth
6. Industry structure
7. Structure and terms of the government—political uncertainty is the norm
8. Country history—a short history that is characterised by lack of national identity. Cultural attitudes that identify Australia are: “the lucky country”, “have a go”, “she’ll be right”. The effects of Asian immigration
9. Analysis/Paralysis—lots of reports on business produced but little are implemented
- 10 Individual/national values—egalitarian attitude, individualistic decision making and not team orientated, a high level of autonomy than co-operation
- 11 The quality of management is far from ideal

The relationship between the uniqueness of the Australian environment and the increase in hostility in the future is summarised in the findings of the Karpin report (1995). Part of the Karpin report looked at the changing business environment in Australia. The Boston Consulting Group undertook this project. A summary of their conclusions were:

1. Tariff levels will be reduced to 5% by the year 2000
2. Virtually all industries are expected to have low levels of regulation by 2010—deregulation and opening up of the Australian economy. Globalization and the economic importance of Asia will become key issues.
3. Asian share of GDP to increase from 20% in 1990 to 28% in 2000
4. Increase in degree holders from 46% in 1987 to 60% in 2000
5. Structure of organisations to change from hierarchical to horizontal—organising around processes, an increase in a knowledge based workforce, business complexity and globalization will be the key characteristics

6. Competition to change—there will be greater importance on human resources and technology as competitive enablers.

Following the boundaries placed on the type and geographic nature of the environment are the boundaries required for triggers of change and change programs. Adaptation has been identified to arise from certain motors of change operating at different levels. As stated earlier, I have chosen Riegel's theory of child development because it incorporates four different motors of change and development and explores the process of change from the crisis produced by the asynchronies in the operation of these motors of change. I specifically intend to examine the role that crisis events have in the process of adaptation in the organisational development of mature industries in hostile Australian environments. The cited literature identifies this crisis, as punctuated equilibrium, results in an organisation undertaking radical revolutionary change as opposed to incremental evolutionary change.

Most punctuated equilibrium arguments revolve around the notion that generally organisations prefer to remain in equilibrium because it is either comfortable for them or they do not have the systems in place to continually monitor and analyse their changing environments. It usually takes a major crisis before an organisation begins to change in order to adapt to its new environment. There is evidence to suggest that the majority of change is triggered by a crisis of sorts. This crisis may arise from the macro or micro level of the environment for organisations. Examples of a macro crisis are:

1. The stock market crash of 1987
2. The recession of the early 90's
3. Deregulation of the Australian economy
4. Global Financial Crisis of 2009

Examples of a micro crisis in organisations are:

1. Banking licences made available to insurance companies in Australia
2. NewsCorp Ltd setting up an alternate competition for Rugby league
3. Mining leases effected by Mabo legislation

These events of punctuated equilibrium create an urgent need for change in order to adapt to the crisis. The type of change program required to suit the needs of this new environment are revolutionary in nature. They are disruptive and often result in failure. Yet some organisations playing under the same rules in the same industry do achieve success and are able to adapt. The final boundary for the research question is to explore the problem of effective revolutionary change by examining the literature and identifying the key characteristics of effective change under these narrow environmental conditions. The key issues addressed in revolutionary change are identified in the literature as:

1. Cultural change (beliefs/values/thinking)
2. Collaboration/co-operation
3. Entrepreneurship/Innovation
4. 'Brainpower'/skills
5. Globalization
6. Leadership
7. Strategy
8. Methodology/implementation

The way these issues are all interrelated in revolutionary change is through the question of *competitive advantage*. When a crisis occurs on either the micro or macro level the organisation needs to question how it can obtain a competitive advantage that will allow it to adapt to the new environment. There are a number of options available to the organisations and inevitably some will be better than others. By identifying successful revolutionary change programs in organisations facing a crisis a model can be built outlining the key variables and their manipulation that has resulted in successful adaptation. In the following section I examine past research and case studies that identify the central questions answered about adaptation.

6. Parts of the Research Problem Studied in Previous Research

The majority of past research into adaptation has concentrated on understanding the question of the relationship between structure, the organisation, and adaptation. The frustrating aspect of this past research is the inability to specify the methodology behind effective change programs. Often a relationship is correlated between two or more variables that results in a tenable conclusion. However, what appears to be lacking from academic research in the literature is the link between these tenable conclusions and a methodology that permits effective implementation. Outlined below is a summary of the key research and the conclusions reached in organisational adaptation:

Research	Conclusions
Aldrich (1979) Population ecology model for organisational adaptation	Developed a three-stage model. Particular structures and activities of organisation are subject to selection processes. The environment creates legal, financial, and cultural barriers which limit choice.
Burns and Stalker (1961) Design of organisation structure can increase the ability to secure their position within their particular environments	Identified two structures: mechanistic and organic. Structures were the subject of choice and decision-making, albeit within constraints. What was appropriate to one environment might be wholly inappropriate in another.
Chang (1995) Study the relationship between a firm's adaptive ability and its organisational performance	Firms in the global industries should invest organisational slacks pertaining to technology level, financial assets, and marketing capability. As the firm's adaptive abilities improve, appropriate adaptation strategies can be developed for global expansion. A firm can enhance its competitive advantage by the use of relevant adaptive marketing strategy. Such an edge usually leads to good performance. A firm can then reinvest its slack resulting in a higher level of adaptive abilities.
Child (1984) Study of Marks and Spencer in Britain	History, tradition and culture of an enterprise can provide a strong base for consistency and for encouraging employee commitment, which can be more important than adapting to every change in technology or organisation which a strict adherence to contingency theory might suggest.
Dill (1962) and Thompson (1967) The role of structure and a heterogeneous and changing environment	When faced with such an environment, people in high-performing organisations sought to identify homogeneous segments and to establish internal structural units to deal with them.
Emery and Trist (1965) Relationship between the amount	The more turbulent the environment, the more decentralised a structure is needed to cope appropriately and the more senior

of change and structure and the environment	executives need to rely on unobtrusive and personal control through values and norms, rather than on hierarchical or administrative control.
Galbraith (1973, 1977) Strategies for coping with uncertainty	If the degree of complexity and uncertainty demands it, people in organisations make choices about adopting other strategies which broadly fall into two groups: first, they can attempt to reduce the amount of information required; second, they can endeavour to increase the coverage and efficiency of information acquisition and transmission.
Hilmer (1991) A study using the Mckinsey 7-s model to analyse Australian organisations' ability to achieve strategic success	Australian companies were: 1. Structure—focused on cost control instead of customers and markets 2. Strategy—very hierarchical 3. Systems—too control orientated 4 .Style—was formal and deliberate 5. Staff—career specialists 6. Skills—technically orientated and functional 7. Shared values—concerned with status quo.
Lawrence and Lorsch (1967) Structural response to environmental conditions	The environment of some, not all, organisations were highly diverse and different sectors embodied different amounts and types of uncertainty, as measured by the subjective assessments of chief executives. A main conclusion was that managers should adopt different managerial styles and strategies to deal with uncertainty.
Lorsch and Morse (1974) Study of the members of the focal organisation and their relationship in adaptation	A need for a three-way fit between (a) the critical demands and conditions of the central tasks and the environment of an organisation; (b) the management structures and strategies; (c) the personal predispositions of its members. Such a fit would result in better financial performance.
Mintzberg (1979) Contingency theory model linking contingencies, structure, and performance	Adhocracy structure (organic structure characterised by change and innovation) is the structure best suited for the future.
Pfeffer and Salancik (1978), Hirsch (1975), Perrow (1979) The politics of introrganisational activities	General conclusions: While organisations adjust to environmental changes, the drive is to control and manipulate the environment. Also, turbulence can be the result of their own efforts to rationalise and introduce new innovations. Finally, the most salient environment for the majors is other majors. Despite competition between them, they collectively evolve strategies to eliminate or absorb minors.
Porter (1980) The role of competitive advantage in adaptation	Industries evolve differently. When the competitive environment changes organisations need techniques to identify these changes and respond by implementing strategies that will regenerate their competitive advantage.
Price, (1996) The relationship between technology as a change factor and creative management action	Technological collaboration is required for adaptation. This is to be achieved by assessing social, economic, and demographic changes and anticipating technological response. This needs to occur in an environment of continuous innovation and improvement.
Thompson (1967)	Organisations make attempts to gain power and defend domains

Study of the way organisations seek to control or protect themselves against unexpected or adverse effects from the environment	against environmental influences but there would always be residual uncertainty because of a lack of perfect knowledge and information.
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The central general questions answered from these research programs are:

1. Structure plays a key role in an organisation’s ability to adapt
2. The greater the variability and change in the environment, the more adaptive and open the structure should be
3. Strategy choice plays a key role in organisational adaptation
4. The ability to analyse and respond to a changing environment is crucial to organisational adaptation
5. Organisations are driven towards dominating their environment
6. Values, beliefs and the quality of people in organisations are central to an organisations capability to adapt
7. High performing organisations are correlated with their ability to appropriately adapt to a changing environment
8. Competitive advantage is central to organisational adaptation
9. The management of change enablers and resources to achieve adaptation is a crucial aspect of the process
10. Innovation and creativity are essential ingredients for effective adaptation

These defensible conclusions lack methodologies for practical implementation in the business world. Case studies offering examples of effective implementation of change programs offer insights into the relationship between these conclusions and their practicality. From the literature cited, turnaround cases offered the best examples of effective revolutionary adaptation. These cases provide re-occurring themes that can guide research in this field. More appropriately, they build a case for the relationship between revolutionary change in a hostile environment and adaptation to achieve competitive advantage for high performance. The role that crisis plays in triggering this change is also identified. Four cases are summarised below:

Case Study	Crisis Event(s)	Revolutionary Change	Outcome
Robert Frey—owner of Cin-Made: a Cincinnati company that makes mailing tubes (1993)	<ol style="list-style-type: none"> 1. Profits unable to sustain wages and benefits. 2. Employee relations turned them into enemies of the company, resulting in strikes and union hostility. 3. Company losing \$30,000 a month 	<ol style="list-style-type: none"> 1. Raise prices and cut expenses 2. Changed job descriptions giving employees empowerment to make key decisions 3. Profit sharing scheme that was directly related to a percentage of gross profits (18%-35%). Employees also shared the risk of bad decisions 4. Forced change on employees 5. Changed culture to that of teamwork and participation 	<ol style="list-style-type: none"> 1. Over a four year period employees received a 36% increase to income via profit sharing 2. Employees routinely monitor work to reduce waste and increase efficiency 3. Absenteeism fell to nearly nil 4. Productivity rose by 30% 5. No increases in fixed wages for 8

			years
Timothy Firstahl—CEO and owner of Satisfaction Guaranteed Eateries in Seattle (1993)	<ol style="list-style-type: none"> 1. Declining income, growing expenses and operating profits leading to bankruptcy 2. The Gulf War 3. The recession 	<ol style="list-style-type: none"> 1. Reduction of overheads by eliminating corporate headquarters 2. Technology revolution used to restructure information processing and reporting 3. 100% power and responsibility given to front line managers—empowerment 4. Collaborative weekly meetings to train and share ideas and problems 5. Keeping employees comfortable during downsizing 6. A bonus incentive plan based on a percentage of cash flow 7. Re-education of employees on the issue of income to cost 8. Invention of new menu items and a change of decor 	<ol style="list-style-type: none"> 1. Cash flow went from a negative to positive for a 200% turnaround in 2 years 2. The successful concept led to selling franchises of the restaurant 3. Reduction in wastage and theft from employees 4. Reduction in operating expenses 5. Reduction in bureaucracy
John Thorbeck—CEO of G.H. Bass and Company: a shoe manufacturer in Maine. (1987-1992)	<ol style="list-style-type: none"> 1. Factory closures (6 of 8) 2. Big losses (\$72 million) 3. Declining sales 4. Plummeting morale 	<ol style="list-style-type: none"> 1. Cut \$9.3 million in costs 2. Liquidated \$21 million in inventory 3. Changed remuneration of sales force from commission to salary and bonus 4. Rationalised design patterns (from 620 to 200) 5. Marketing innovation—launched a new line at twice the original price of past shoes 6. Creating believers out of employees in company vision and community. This was achieved by reviving the values inherent in the companies history (culture). 	<ol style="list-style-type: none"> 1. From a loss of \$46 million in 1986 with sales of \$150 million to a \$16 million profit on sales of \$180 million in 1988. 2. A coherent community working for a higher purpose (values) 3. Increased level of competence amongst workers
Rodney Adler—CEO of FAI insurance in Australia (1992)	<ol style="list-style-type: none"> 1. Death of the founder: Larry Adler—loss of core competitive advantage 2. Stock market crash of 1987 3. Plummeting profit over 3 progressive years leading to a \$144 million loss in 1991 	<ol style="list-style-type: none"> 1. Employment of Roy Ellis—General Manager—new leadership style and new perspective 2. Changed culture from sales driven to profit driven—achieved by retrenching staff and employing new ones with new vision 3. Increased skill levels and knowledge among employees through training and tertiary 	<ol style="list-style-type: none"> 1. Operating loss reduced to \$49.3 million in 1992—a 76% improvement on operating loss from previous year 2. Better management of resources due to better information 3. Raised levels of competencies amongst employees

	4. The recession in the early 90's	institutions 4. Changed information technology to upgrade information flow 5. Commitment to professionalism and innovation 6. Regular communication with staff to sell the change	4. Employees now make decisions 5. Employees are now proactive in company development rather than reactive
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These case studies offer key general questions that have already been answered regarding effective revolutionary programs. A summary of these common re-occurring themes are:

1. The effective and innovative management of finances, products, and markets is central to effective adaptation
2. The development of new products and new innovative marketing strategies
3. A change in leadership style and/or leader is necessary for revolutionary change
4. A change in organisational culture focusing on values, commitment, trust, professionalism and innovation is essential for successful revolutionary change
5. Employee empowerment and reward system need to be aligned and developed around company performance
6. Technology and information play a key role in this form of adaptation
7. Choice of strategy needs to be closely aligned to the new environment facing the organisation
8. Speed of change and selling the change to employees is important to achieving effective revolutionary change
9. Education and skill level of employees needs to be raised to meet the needs of this type of change
10. Regular communication about the changing environment and sharing of ideas is required for effective long-term revolutionary change
11. A reduction in bureaucracy and an innovative approach to administration is required
12. Effective revolutionary change programs re-establish their competitive advantage

Case studies complement academic research into adaptation by providing practical examples of effective adaptation. The role of crisis as a trigger for revolutionary change is evident in the case studies. A clear pattern evolves that contributes to the overall argument that crisis events trigger organisational change. Often the case studies reveal that the focus of adaptation research should lie outside organisational structure and more towards appropriate methodology and the role of employees (people) in adaptation to the crisis event(s). The final section examines research questions or hypotheses that have not been answered in past research.

7. Research Questions or Hypotheses not in Research

The fundamental questions not answered in past research revolve around the effective capacity of people in organisations to handle crisis events. This is a difficult paradigm to measure and is the most probable reason behind the lack of research in this area. The likely hypotheses for this area are:

1. Power relations affect an organisations ability to adapt.
2. Work processes affect an organisations ability to adapt.
3. People dislike change and prefer to reside in a state of equilibrium. Crisis events are necessary to trigger substantial change since survival is threatened.
4. Cohesion derived from culture and a belief in community values is essential to adapting to a crisis.
5. Competitive advantage is inextricably tied in with enthusiastic, committed, loyal employees.
6. Crisis events create turbulence in an organisation. The adaptation drive in organisations is to move towards a state of equilibrium again.
7. People need to be forced into radical change.
8. Knowledge and skill level of employees are essential for effective adaptation to crisis events.

Closely linked to these hypotheses are the ones required to answer the questions relating to the methodology used to effectively implement revolutionary change in organisations facing crisis events. Examples derived from case studies in turnarounds reveal an absence in the research concerning methodology. There is ample literature on types of change programs and why and when they need to change, but insufficient research on how they change—methodology-related questions. The importance of understanding adaptation from this perspective can not be underestimated. The current disastrous effects of re-engineering seen in organisations are derived from a lack of methodology behind the principles of re-engineering. A review of turnaround case studies reveals these possible hypotheses:

1. Methodology for revolutionary change programs is centred around matching employee values with the chosen changes.
2. Effective methodology for revolutionary change requires employee empowerment and a reward system to be aligned.
3. Methodology for revolutionary change requires employee acceptance and participation to be effective.
4. Effective methodology for revolutionary change requires a sensitive leader that can sell the change to employees.
5. Effective methodology for revolutionary change requires co-operation from employees for the implementation of the program.

These hypotheses remain unanswered in the area of organisational adaptation. Yet they are crucial to linking the academic perspective with the practical aspect of organisational adaptation. The examination of case studies will offer tenable conclusions to some of these hypotheses. There is difficulty in measuring these hypotheses in the traditional manner for research, but the case study method does offer substantial evidence from the business world to provide defensible conclusions.

As stated earlier, my research problem involves understanding the relationship between crisis events in organisations in mature industries in Australia and the revolutionary change process in adaptation. A summary of the hypotheses that I will be investigating are outlined below:

1. Organisations seek revolutionary change mostly when they confront crisis events.
2. High-performing organisations in mature industries in Australia effectively implement revolutionary change when confronted with a crisis.
3. The chosen methodology for revolutionary change of high-performing organisations in mature industries in Australia is related to employee values, their skill levels, acceptance and participation levels, and their co-operation.

4. Effective methodologies of high-performing Australian organisations is related to employee empowerment and a reward system aligned to performance.
5. Effective adaptation to crisis events in high-performing organisations in mature Australian industries is related to the leaders ability to sell the changes to employees.
6. Crisis events are the main triggers for revolutionary change in organisations.

These hypotheses can be further narrowed by nominating to study organisations in one matured industry rather than examine multiple industries. An example of an industry displaying Porter's characteristics of a matured industry is the retail banking industry in Australia. There are advantages and disadvantages for nominating the study of one industry and the choice will be based on which approach offers the most conclusive evidence to make the hypotheses tenable.

8. Conclusion

The topic of adaptation in organisations is rooted in the fundamental fabric of the business discipline. The ability to adapt is essential to the growth and survival of an organisation. Without this ability the organisation becomes either a bankruptcy statistic, merges, or is acquired by a more growth orientated organisation *with* an appropriate ability to adapt. By understanding when organisations undergo change we learn that the answer lies with people's levels of tolerance to change itself. The literature cited provides a re-occurring theme that suggests crisis events play a crucial role in triggering real change in organisations. Incremental change in organisations is identified as a process that organisations undertake to *maintain* competitive advantage within their environment. Incremental change is often characterised by reactionary strategies whilst radical, revolutionary change is characterised by proactive strategies that *reinstate* an organisations competitive advantage. The need to change when confronted with crisis events is closely related to a survival instinct. The type of change is revolutionary in nature and requires manipulation of key variables to be effective. This type of change is disruptive and often difficult to implement correctly. By identifying the key characteristics in the methodology of effective turnaround cases we are able to create a model that can guide business practitioners towards successful revolutionary change to adapt to a hostile environment. This will answer the question of *how* to change.

There are certain questions that remain unanswered from past research. These questions relate to the role that people play in the process of radical change. The case studies provide central relationships between the role of employees and successful adaptation. Closely linked to this theme is the methodology chosen for implementation of revolutionary change. One of the most common failings of revolutionary change is the manner in which the organisation undertook the change process. Organisations know they need to change to meet the needs of a new hostile environment but rarely do they know *how* to implement these changes.

My research in this area will contribute to the body of knowledge that currently exists on organisational adaptation. It will attempt to answer some fundamental relationships in the process of effective revolutionary change. The aim of the research is to build tenable conclusions that will aid Australian and international business researchers and practitioners in understanding not only the process of effective revolutionary change but where the real focus of future research should lie.



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