High-Profile Crisis Management in Australian and New Zealand Organisations

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Abstract

This thesis demonstrates that it is paramount to develop crisis-preparedness strategies and practices based on empirical research, in order to improve an organisation’s ability to manage effectively and, ultimately to survive, a high-profile crisis event.

Although there are many high-profile crises that have been managed successfully by applying strategies to make organisations more resilient, there is still considerable confusion and uncertainty about the way these crises have been evaluated and the way their success can be measured in relation to other crises.

There are no international crisis-preparedness standards in relation to a set of crisis outcomes indicators that could be applied. This lack of empirically proven relationships between crisis-preparedness strategies and their effect on crisis outcomes makes the identification of effective strategies very difficult.

Case studies, anecdotal evidence and a limited number of empirical crisis management studies (i.e. effect on share price) suggest a great variability in the effectiveness of certain strategies and practices that have produced inconclusive results. This study analyses the strategies variability to advance knowledge in the field of crisis management.

The purpose of this study is to address the gaps and contradictions in the literature. The study achieves this purpose by investigating the relationships between crisis preparedness: strategic preparedness, stakeholders’ relationships, crisis histories and the outcomes of a crisis event, using qualitative and quantitative methods and innovative ways to operationalise these concepts.

A high-profile crisis management model (HPCM) was developed from the literature to show the theoretical relationship between crisis-preparedness dimensions and crisis outcomes. Hypotheses were developed and tested based on the relationships we identified in the model. The relationships were tested using quantitative information from 50 organisations which experienced a high-profile crisis. The tested hypotheses were further explained by utilising four qualitative case studies of Australian and New Zealand organisations.
The major research finding of the study was that the high-profile crisis management model (post-factor analysis) is a generally valid and reliable model for measuring and predicting two out of three dependent variable categories (crisis outcomes): the relationship between crisis preparedness and effective crisis management (for tangible non-crisis outcomes and non-tangible crisis outcomes). It is important to note that there is a substantial amount of variance for tangible non-crisis outcomes and non-tangible crisis outcomes that is not explained by our model. The model was also inadequate in explaining the variance of tangible financial outcomes. These are deficiencies in our study that should be addressed in future research.

Specific variables of the dimensions of the HPCM model, like issues and risk management plans and reputation processes, were significantly associated to the tangible non-crisis outcomes and non-tangible crisis outcomes.

Organisations that had in place strategies to manage a crisis based on practices drawn from the HPCM’s three dimensions, tended generally, to have lower negative tangible non-crisis outcomes and non-tangible crisis outcomes than those organisations which had in place practices addressing only two, one or none of these dimensions. These relationships were even stronger for large organisations (501 or more equivalent full-time staff members).

The implementation of certain crisis-preparedness variables, like the training of key crisis members (strategic-preparedness dimension) and learning from previous crises (crisis history dimension), can assist an organisation in protecting reputation and staff morale. Other independent variables, like the quality of the organisation’s relationships with the staff and the union, reduce the probability of the resignation of board members and the CEO.

This study concludes that the adoption of the HPCM model would increase an organisation’s probability of minimising the worst negative effects of a high-profile crisis measured by tangible non-financial crisis outcomes and non-tangible crisis outcomes. Our qualitative studies illustrate and support this conclusion. The limitations of the study and the implications of the research are reviewed, along with the directions for future research.
Declaration

I declare that the thesis is less than 100,000 words in length, exclusive of tables, maps, bibliographies, appendices and footnotes. Furthermore, the thesis does not contain material which has been accepted for the award of any other degree or diploma in any university. To the best of my knowledge and belief, the thesis does not contain any materials previously published or written by another person, except where due reference is made in the text of the thesis.

Signature_________________________________ Date:____________________
Preface

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*I dedicate this thesis to Erina for being my music and to Maya and Alena for being the instruments that played it.*
High-Profile Crisis Management in
Australian and New Zealand Organisations
Chapter 1
Introduction

1.1 Background to the research problem

There is a strong need for further research and refining in the areas of crisis prevention and crisis events management due to a significant increase in the magnitude and frequency of organisational crises, their negative impacts and failure rates in the world (Lajtha, 2002) and Australia in the last decade. In Australia from 1990 to 2001, 27 per cent of organisations that experienced high-profile crisis events did not survive (Coleman 2004). Elsubbaugh et al. (2004) argued that crisis preparation may be a critical determinant of survival for any organisation. In terms of crisis prevention, the USA Institute of Crisis Management (ICM) has estimated that two thirds of the crises that were made public probably could have been averted, thus staying out of the headlines. The Institute’s statistical figures suggested that half of the crises registered in 2002 were caused by actions taken by senior executives and managers and therefore preventable. The ICM statistical figures are used by risk management practitioners to assess the probability of a crisis and/or the type of crisis each industry is more prone to experience.

Both crisis prevention and crisis management are particularly important issues for Australian senior executives. Few are aware of recent changes to the Commonwealth Criminal Code (IS: CCA, 2004), where regulators have the power to prosecute organisations on the “basis of their corporate culture”. This new legal framework means that regulators may scrutinise the decisions managers took pre, during and post crisis and if these are judged negligent, these senior managers face the prospect of criminal charges.

Board members and executive executives are now seeking empirical evidence that assist them in allocating scarce financial resources to prepare for a crisis event that will ultimately reduce the most negative effects of a high profile crisis. Organisations are now more likely than ever to experience a crisis event given the rise of modern forms of sophisticated activism and new media outlets such as the internet. Non-
government organisations (NGOs) and other interest groups have increased dramatically in the last 10 years. According to Hart and Sharma (2004), there are now more than 50,000 international NGOs compared to less than 20,000 only a decade ago and these assume the role of monitors and in some cases enforcers of social and environmental standards. Traditional media organisations (newspapers, radio, television) also have more access to information by using laws and regulations, such as the Australian Freedom of Information Acts (IS: FIA, 1982) and Whistleblower Legislation (IS: PDA, 1994).

Crises are now more frequent and costly both financially and socially. Coleman (2004) found that in Australia so-called high-profile corporate crises have occurred more frequently since 1992. Coleman identified 55 high-profile corporate crisis events from 1990 to 2001. Calculating the financial impact of 25 of these crises, he found that they had an average cost of $10 million, with 5 out of the 25 exceeding $100 million.

The social cost of crisis also tends to be substantially higher than in the past as an organisational crisis is, most of the time, the cause of a number of other crises, becoming the first link in a chain reaction of catastrophes of unpredictable consequences. The demise of Pan Pharmaceuticals resulted in 200 direct jobs being lost in that organisation and hundreds more from their stakeholder groups. For instance, 150 jobs were lost in supplier organisations, 650 from the retail industry and a number of undetermined cross-industry jobs (published in several Australian national and state newspapers, 26 July 2003).

Despite the substantial social, economic and legal impacts of crisis events, few organisations are taking action to prepare themselves. Based on statistics collected over a 20-year period, Mitroff and Alpaslan (2003) found that only between 5 and 25 per cent of the Fortune 500 USA organisations were crisis-prepared. They concluded that at worst 95 per cent of the organisations were unprepared, describing this percentage as “extremely worrying”.

A study conducted in New Zealand by Erwing-Jarvie (2002), as part of his doctoral thesis, found that larger organisations (more than 500 employees) tended to be better crisis prepared than smaller organisations, in particular in areas not associated with the development and maintenance of stakeholders’ relationships. No similar
figures were found for the Australian context. Despite this, case studies suggest that even organisations that were prepared, could not manage a crisis event well. This was the case according to Browning (1996), Shrivastava (1987) and Sharplin (1985) of Union Carbide during the Bhopal incident in India in December 1984. Three thousand, eight hundred people died and more than 11,000 were disabled. According to these studies, Union Carbide failed to act quickly to manage the crisis, avoided its stakeholders’ concerns and as result, thousands of people were killed and many more affected. It cost the organisation billions of dollars. Union Carbide was forced to sell 20 per cent of its most profitable assets to prevent a takeover attack mounted by GAF Corporation, which had acquired undervalued Union Carbide stock after the accident. This failure to act took place even though Union Carbide had contingency plans for emergency events.

The Union Carbide experience also raised several issues about the kind of response strategies that should be used to manage a crisis event and whether or not these response strategies were ethical. Although non-ethical response strategies do not fit well with a corporate philosophy of social responsibility, organisations are tempted to use them if they perceive them as effective to minimise the negative outcomes of a crisis event.

One of our qualitative studies, based on the explosion of Esso’s gas plant, is representative of this type of crisis preparedness and response. The study of this type of crisis event, which is discussed in detail in Chapter 4, is most relevant in addressing this study’s research question.

The importance of carrying out research in different countries with distinctive national cultures, like Australia and New Zealand, has been highlighted by academics like Schneider and Meyer (1991) and Elsubbaugh et al. (2004) whose findings support the view that cultural differences affect the interpretation and response to strategic issues. Taylor (2000) researched the variability of public responses based on cultural dynamics. He found that the national cultures of each of the six countries targeted showed that their publics had vastly different responses to the same crisis event (citing the Coca Cola recall in 1999). Evidence suggests that an organisation’s crisis response is constrained by the type and nature of these social interactions and by the nature of the crisis itself (Coombs & Holladay, 2001).
Scholars like Mitroff and Alpaslan (2003) argue strongly that organisational crisis prevention and crisis management are critically important; their statistics show that organisations have not taken this issue seriously enough. Lajtha (2002) argues that it is fundamental to change the focus of crisis management in order to pay more attention to pre- and post-crisis activities.

Organisations tend to concentrate on those response strategies that deal with one particular stakeholder: the media. As in normal business conditions an organisation communicates with its stakeholders via a variety of methods – in a crisis situation, to date the key perceived way to communicate has been via the mass media (Carter, 2006).

Some strategists see issues management (Heath, 1997) as a valuable crisis management tool, where “policy and facts are persuasive communication tools”. Decision-makers dealing with issues management usually adopt processes developed by risk management strategists (Green, 1992) as a way to avoid a crisis. But once any of these issues have transformed into a full-blown crisis, risk management strategies have struggled to contain a crisis.

Lajtha (2002) is of the view that:

… risk analysis, usually using a rational method aimed at identifying and classifying uncertainties according to the criteria of likelihood of occurrence (probability) and their impact (severity). It is clear today that such analysis is not likely to be useful as a diagnostic methodology for crisis situations… Risk analysis remains a key part of the risk management process but needs to be supplemented by more unconventional techniques when crisis management initiatives are being planned.

Crises tend to be unique and appear “chameleonic”, by transforming from a financial and political event into a complex social phenomenon.

As evidenced by the above, the field of crisis and its management is burgeoning, amorphous and exploratory and as such this research deals with only one facet of it in a bound way. This research focuses on the examination of the organisational strategies to prepare for the management of a crisis event and the relationship between these
preparation strategies and the crisis outcomes. These strategies would complement other processes like risk management.

In short, a key problem identified in this research is the high probability of Australian organisations suffering substantial tangible and non-tangible loses (financial and reputation), as a consequence of increasing number of high profile crisis events. The academic literature has established powerful links between the apportioning of crises responsibility and good deeds (Gonzalez-Herrero and Pratt, 1996) by the organisation, and between crisis responsibility and relationship and performance history (Coombs and Holladay 2001). However there are significant gaps in the empirical studies available (see 2.2.2.3) particularly regarding the relationship between the degree of organisational preparedness, stakeholder relationship and crisis history and the outcomes of a crisis event by organisations which have experienced these types of events. Among the exceptions are the studies conducted by Hooker and Salin (2001) and Marcus and Goodman (1991), on the share market’s reactions to specific types of crisis events such as food recalls; Jarrel and Peltzman (1985) on product defects (drugs and cars) and a more general research study carried out by Pretty (1999) on the time taken for the share price to recover its pre-crisis level after an organisation experienced a high profile crisis event.

1.2 Purpose and objectives of the study

1.2.1 Purpose

The purpose of the study was to develop a high profile management model from the literature and then test hypotheses within the model in order to identify strategies aiming at minimizing the negative outcomes of a crisis event.

1.2.2 Objectives

The objectives of the research were:

a. To demonstrate the strength of the relationship between crises preparedness dimensions: strategic preparedness, relationship and crisis history and measurable crisis outcomes by testing hypotheses formulated from the literature
b. To identify which crisis preparedness dimension best explains and predicts crises outcomes.

The understanding of the complexities of these relationships generated a number of policy implications for managers. It contributed to the literature and led to reassessing the strategic importance of preparing for the management of crises as well as their prevention. Most importantly it developed a strategic guideline for the allocation of resources based on the type and strength of the relationships found between our independent and dependent variables (also referred to as crisis outcomes in this study). This research project did that by examining the major crisis events and their outcomes within a theoretical framework developed from the academic literature.

1.3 Research Question

Do the dimensions of strategic crisis preparedness, stakeholder relationship history and crisis history contribute significantly to the minimisation of negative outcomes of a crisis event?

1.3.1 Subsidiary Questions

a. Which one of the dimensions of crisis preparedness is the best crisis-management predictor of crisis outcomes?

b. How do the crisis preparedness dimensions interrelate with each other?

c. Does the size of the organisation affect the relationship between crisis preparedness and crisis outcomes?

1.3.2 Analysis

We used data reduction, validity and reliability analysis techniques to define new variables and construct their measurement scales. Multivariate techniques were used to explore the relationship between the crisis preparedness dimensions and the crisis outcomes.
1.4 Major Findings

Our major findings are:

- Our statistical analysis confirmed that our post-factor analysis HPCM is a valid and reliable *instrument for measuring and predicting our constructs relationships in relation to tangible non-financial and non-tangible crisis outcomes*, (see point 5.7).

- Our HPCM statistical model was not a reliable *instrument for measuring and predicting tangible financial crisis outcomes*.

- Our statistical analysis confirmed strong relationships between our crisis-preparedness dimensions and our *tangible non-financial and non-tangible crisis outcomes*.

- Based on our statistical results, organisations that had in place strategies to manage a crisis based on these three dimensions (crisis-preparedness planning, stakeholder history, crisis history) tended, generally, to have lower negative *tangible non-financial and non-tangible crisis outcomes* than those organisations which had in place practices addressing only two, one or none of these dimensions. This relationship was even stronger for large organisations (with 501 or more equivalent full-time staff).

1.5 Contribution of the Study

The study contributes to the literature through the development and analysis of a high-profile crisis model derived from the literature that is a valid *instrument for measuring and predicting our constructs relationships with certain crisis outcomes (tangible non-financial and non-tangible crisis outcomes)*. As such, this model could be used for further research projects to test and measure other types of relationships (i.e. between the 14 independent variables and other type of tangible non-financial and non-tangible crisis outcomes).

The study also contributes to our deeper understanding of the business value and strategic role that the crisis-preparedness dimensions and their variables played to minimise the negative outcomes of a crisis. Based on our findings, managers could identify key practices, allocate and prioritise crisis-preparedness financial and non-
financial resources. Managers will now have a guide to allocate strategic preparedness financial resources.

The study has significant implications for the development of a theoretical base to focus new research on the effect that strategies have in relation to the crisis outcomes and by the development of a set of crisis outcomes indicators that could be used for researchers and practitioners to benchmark management crisis outcomes across different industries. The main argument of this report is to develop a case to include crisis outcomes as part of the theory of crisis management.

1.6 Limitations of the Study and Future Research

1.6.1 Limitations

Although this research is one of the most comprehensive empirical and qualitative studies undertaken in this field, it does have a number of limitations, and these give rise to a number of suggestions for further research. The internal validity of the HPCM constructs is acceptably strong, but there is room to improve it. Further empirical research could pre-test factors which more accurately reflect crisis preparedness, and which would hopefully achieve higher validity scores. Further research on refining the constructs and their dimensions is warranted in particular to identify independent variables that explain the variance in the tangible financial crisis outcomes. The study collected information on 50 organisations that had experienced a high-profile crisis event. This number of organisations fell within the statistical borderline to conduct multivariate analysis. As such all the analysis conducted with data subsets (like size) was carried out for indicative purposes only. The nature of all the hypotheses would warrant the collection of empirical information from, at least, 100 organisations that experienced a high-profile crisis event and a further 100 organisations that may not have experienced these types of events. The relationships between our independent variables and tangible financial outcomes should be explored further as our HPCM model did not explain these dependent variables variance.
1.6.2 Further Research

Without a clear reference to the outcomes of a crisis, it is difficult, if not impossible, to get an objective evaluation on whether the crisis was effectively managed, whether we could avert or minimize its most negative outcomes and whether the allocation of financial and non-financial resources to prepare and manage the event were wisely spent. For instance, without this empirical evidence it is very difficult to get the members of the board or the CEO to embark on a pre-crisis training program that would be costly in terms of time and money and that may distract them from their day to day strategic responsibilities. This research tries to fill this empirical gap but more research has to be done. It is important to explore the relationship between crisis preparedness and crisis outcomes including the following moderators:

- Type of industry
- Type of crisis.

We need to construct a modified version of the HPCM model that better explains the variance in tangible financial crisis outcomes. It is important to research the assessment and impact of the advice received (crisis management, legal, media) and the use of ethical vs. non-ethical response strategies during a crisis event in relation to the crisis outcomes. We suggest including “external advice” as an additional independent variable in our HPCM model. As this variable may be an important contributor to explaining the variance in the crisis outcomes.

1.7 Epistemological Approach

As Turner (1982) notes, researchers must clarify their epistemological position because it determines whether they aim to test or generate theory. This research adopted a positivist epistemology that considered that there were independent variables which play a permanent role in explaining a dependent variable. However, we believe that these relationships are moderated by cultural, social and legal factors. The study relies on previous positivist theoretical and empirical work conducted by Gonzalez-Herrero and Pratt (1996) and Coombs and Holladay (2001).
1.8 Brief Outline of the Chapter Contents

1.8.1 Chapter 2: Literature Review

The literature review is primarily concerned with previous research on the theoretical relationship between crisis preparedness and crisis outcomes. This review concentrates also on identifying relevant crisis management constructs, dimensions and variables. The contributions of others are evaluated by identifying trends in crisis research and areas of theoretical and empirical weakness. A summary of the literature theoretical framework and findings is presented where “gaps” in research and contributions of existing studies are articulated.

1.8.2 Chapter 3: Research Framework

Theoretical models to manage crises are evaluated for their contributions to the study considering that the literature regarding crisis preparedness and crisis outcomes is very limited. A high-profile crisis management model is developed, hypotheses are articulated and key independent and dependent variables are identified. We explain the research design, data collection methods and the process of gathering the data and procedures in data analysis.

1.8.3 Chapter 4: Qualitative Data Analysis

The chapter analyses qualitative data obtained from three Australian organisations and one New Zealand organisation. The four case studies are enriched by the interviews conducted with key crisis management team members, one for each of the organisations concerned. Multiple cross-case analysis is used to analyse the information. We identify emergent themes, key independent and dependent variables.

1.8.4 Chapter 5: Quantitative Data Analysis

This chapter comprises the process and results of statistical descriptive, factor and multiple regression analyses techniques in order to provide an overview of the data and to test the hypotheses articulated in Chapter 3 of our study.
1.8.5 Chapter 6: Research Findings

In this chapter we summarise the research findings, complementing the information with information collected and analysed in Chapter 4 and the field’s literature.

1.8.6 Chapter 7: Implications of the Research Findings

This chapter evaluates the implication of the research findings at these levels:

- Strategic
- Financial
- Leadership
- Stakeholder relationships
- Organisational.

1.8.6 Chapter 8: Conclusions, Contributions, Limitations and Further Research

In this chapter we discuss the evidence that assist us to meet the purpose and objectives of this study. We both draw conclusions based on the research findings and articulate the contributions that have been made to the discipline. The limitations of the study and the implications of the research findings are reviewed at the crisis outcomes level of:

- Tangible financial
- Tangible non-financial
- Non-tangible

Future research areas are proposed and analysed.
Chapter 2
Literature Review

2.1 Purpose

Sekaran (1992) defined the purpose of the literature review as:

…to identify and highlight the important variables, and to document the significant findings from earlier research that will serve as the foundation on which the subsequent theoretical framework for the current investigation can be based and the hypotheses developed.

2.2 Objectives

- To identify trends in crisis management research.
- To identify controversies, gaps and breakthroughs in existing research.
- To identify relevant research models, key research definitions constructs, dimensions and variables (crisis, organisational crisis management, crisis preparedness etc) to address the research problem.

2.2.1 Trends in Crisis Management Research

To meet the first objective of the literature review, we reviewed more than 50 books, 650 journal articles, 20 PhD dissertations and 5,000 news items. Most of the body of literature came from the US and UK. Although we found that there is not a specific text considered to be the “Bible” of crisis management, there are a number of influential and well-recognised scholars in this field such as Coombs and Holladay (2001), Pauchant and Mitroff (1992) and Gonzalez-Herrero and Pratt (1996). The literature falls into two main categories:

- Dealing with crisis management from a naturalist perspective (crises are products of social and cultural interactions).
Dealing with crisis management from a positivist perspective (theories can be structured and tested empirically).

2.2.1.1 Naturalist Perspective

Loosemore (1999) says that a naturalistic approach considers that reality is constructed and maintained over time by people and that it does not exist in a rigid, stable sense. In the crisis management literature this perspective is highlighted among others, by Hearit and Courthright (2003); Weick (1993); McCann and Selsky (1984); and Smart and Vertinsky (1984).

Hearit and Courthright (2003) see crises as dynamic social constructions that are both created and resolved terminologically, based on the assumption that all perspectives of reality, from scientific discourse to crisis communication, are socially constructed through communication. Therefore, some crises have to take place in a fertile environment, defined as such by the public perception. For example, Hearit and Courthright (2003) argue that in a war zone, the population may not see the lack of electricity as a crisis but they may think otherwise if there is a lack of water. These authors also conclude that the assessment of an event as a crisis is jointly constructed by the participants of multiple actors in the social exchange, be they organisations, media, special interest groups, or consumers—all of whom offer discourse as the instrument by which they participate. This perspective is very useful for understanding the transformation process of some issues into crises. However, it does not provide any insight into the relationship between crisis preparedness and the outcomes of the crisis event once this transformation has taken place.

A separate arm of the naturalistic literature deals with the issue of organisational sense-making. The sense-making approach analyses the complex social interactions that take place within an organisation experiencing a crisis event. Weick (1995) argues that sense-making is about such things as placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding, and patterning. Weick (1993) affirms that in a crisis situation, the sense of what is occurring and the means of rebuilding that sense collapse together. Weick (1993) adds that the basic idea of sense-making in organisations is that reality is an ongoing accomplishment that emerges from efforts to create order and make
retrospective sense of what has occurred. Sense-making helps us to understand why organisations unravel and how they can be made more resilient. In a crisis situation a number of problems arise. Weick’s analysis is concerned primarily with the identification of the sources and structures of organisational resilience. Although resilience is one aspect that may help us to understand crisis preparedness, Weick’s concept of resilience is complex to operationalise and as such is not aligned with the objectives of this research.

Another important body of the crisis literature examines the impact of different types of environments on organisations and the way that organisations may respond to them. Emery and Trist (1965) identify four types of casual environmental textures: placid, randomised-placid, clustered, disturbed-reactive and turbulent fields. McCann and Selsky (1984) build on this concept by identifying a fifth type of environment identified in the form of “hyper-turbulence”. They define this new environment as the condition in which environmental demands finally exceed the collective adaptive capacities of members sharing an environment. McCann and Selsky (1984) argue that before hyper-turbulence becomes endemic (resulting in the collapse of the organisation) and an environment totally unmanageable, members will engage in a partitioning process analogous to a social triage. Social triage is defined as an effort by members to allocate and protect scarce resources and skills. This is an important concept that may explain the concentration of organisational key resources during a crisis event.

There are a number of empirical studies on Turbulence: Cameron, Kim and Whetten (1987); and Reilly, Brett and Stroh (1993). Smart and Vertinsky (1984) research the relationship between the type of environment in which an organisation is embedded and the repertoire of strategic responses that is developed to cope with major discontinuities or crises, where the executive’s propensity to adopt a particular strategy depends on their perception of how well their firm can control its environment.

In short, the naturalist approach helps us to understand the environment, context, processes and social interactions that may take place during a crisis event. During the qualitative analysis (multiple case studies), as proposed later in this study, this research project contemplates the exploration of some key naturalist concepts, in the context of their effectiveness in understanding crisis outcomes (such as the identification of the type of environment faced by the organisation during a crisis).
2.2.1.2 **Positivist Perspective**

Loosemore (1999) describes the positivist perspective as a view that sees reality as an inert amalgam of facts, which can be released by the right methodology. He adds that this approach believes that theories can be structured and tested with complete certainty. Among the best expositors of this perspective, this research identified Coombs and Holladay (2001); Pauchant and Mitroff (1992); Gonzalez-Herrero and Pratt (1996); and Shrivastava (1988). The crisis management positivist approach has been examined from a number of angles: risk management, resilience, stakeholder engagement and so on. An overview of these approaches is discussed below.

2.2.1.2.1 **Risk Management Approach**

There are a number of theoretical models that aim to prevent or anticipate a crisis (Loosemore, 1999; Sinclair & Haines, 1993). Some of these models follow the risk minimisation and risk-taking behavior perspective known as risk management.

Risk management focuses on the importance of identifying and monitoring organisational factors that may generate a crisis. Hood and Jones and contributors (1996) say that risk management in practice involves “some mixture of anticipation looking forward and resilience – bouncing back”. Risk management models also help organisations to identify media and communications management strategies to alleviate the impact of a crisis event. There are a number of articles covering this topic, in particular related to the area of risk reputation and risk communication management (Green, 1992; Palenchar & Heath, 2002; Gutteling, 2001; and Chess, 2001). This body of literature highlights the importance of establishing solid relationships with the media in order to minimise communication risk during crisis events by reducing uncertainty. Chess (2001) argues that risk communication has been evolving without a theoretical framework and that risk communication could borrow from organisational theory to understand its evolution.

Risk-taking theories (Prospect, Quasi-Hedonic Editing etc.) may help to explain why some managers are more willing than others to take crisis preparedness steps and to react to crisis in particular ways. In particular, when those risk taking managers have experienced big losses from previous crisis events (Thaler & Johnson, 1990; Staw
There is an expected behaviour that is consistent with findings by Tversky and Kahneman (in 1974 and 1981) that individuals tend to engage in more risk-taking behaviour when faced with a situation described as “potential loss”, therefore their response to losses tends to be more extreme than their response to gains.

Further hypotheses on why managers take a particular set of decisions are proposed by studies on risk-taking (Thaler & Johnson, 1990; Slattery & Ganster, 2002). These are related to the framing of the problem (a crisis situation in this instance) where things may look better or worse by making some aspects of the situation more salient than others. They add a dynamic dimension to the risk-taking behaviour finding that affective consequences of subsequent choices are influenced by the outcomes experienced in past decisions (known as Quasi-Hedonic Editing Theory (QHE)). In parallel to this perspective, D’Aveni and MacMillan (1990) studied the focus of attention of top managers in surviving and failing firms.

This risk-taking approach may complement that taken by Sheaffer and Mano-Negrin (2003) where they found that holistic planning for crises and simultaneous focus on key corporate dimensions brings about improved crisis readiness. This is a direct result of the Executive’s orientations to crisis. There are similar approaches that consider the importance of perceptions, in particular in the process of identification of a “problem” as a “crisis”. Billings, Milburn and Schaalman (1980) analyse the individual decision-maker’s perception of a crisis, which they see as related to the organisational response in several ways. They also support the view that individual perceptions may either lead to, or be caused by, shared social perceptions.

Billings, Milburn and Schaalman (1980) based their theoretical approach on Hermann’s (1963) crisis model. Some practitioners like Neil (2005) take a very simplified view of risk management. For Neil the key strategy is to develop disaster management plans, which spell out the way the organisation will prepare and respond to crises and proceed to testing and improving them accordingly. Worldwide, the most popular risk management model is the one included in the Australian/New Zealand Risk Management Standard – AS/NZS 4360:1999 (Web: Standards Australia). This model refers indirectly to plans to manage an incident as a “treatment or contingency plan” (see Figure 1.A).
Other scholars (Coleman and Helslot, 2007) are attempting to bridge the distance from risk management and crisis management by advocating “...the need to increase and develop empirical and quantitative research and understanding into corporate crises and man-made disasters for the purpose of prevention”. Risk practitioners require this empirical evidence to modify their current approach to crisis management, where a heavier analytical weight is put into impact rather than frequency, and a more precise “crisis risk probability” could be calculated for industry and crisis prone organizations.

Risk communication is another branch of risk management where there have been a number of studies aiming at linking risk and crisis management. Risk communication is placed in between both disciplines. Chess (2001) sees risk communication as a mean to increase legitimacy after a crisis. But most of the academics focus on processes that affect how government officials, scientists, and ordinary citizens communicate about risks (Palenchar and Heath, 2002). Palenchar and Heath suggest “…that public relations practitioners can and should attempt to understand risk discourse content as well as the communication processes and risk perceptions held by key publics”. However, these risk communication processes take place, usually, before a crisis event.

In summary, the risk management approach offers a number of solid strategies to prevent a crisis. As such it was considered as a key independent variable of our crisis preparedness construct whose main aim is to prevent a crisis from ever occurring and/or prepare the organisation to manage a crisis event if it does occur. Our crisis preparedness construct divides the key independent variables into strategic, crisis prevention and crisis management categories. The risk management variable was included in the “crisis prevention” category. Although it is common to find crisis management articles indexed also with the key word “risk management”, no serious attempt has been carried by field researchers to combine both issues into a sound theoretical model. It seems that, high profile crises tend to be assessed as low probability, high risk events, that are rarely considered by risk management practitioners as issues at the center of risk management strategies. The fact that most risk management scholars see crisis management just as a contingency strategy seems to confirm this view.
Figure 1.A: Risk Management Model

AS/NZS 4360:1999 Risk Management Model

Identify context
- Organisational
- Risk management
- Develop criteria
- Strategic
- Decide structure

Identify risk

Analyse risks
- Determine likelihood
- Determine consequences

Estimate level of risk

Evaluate risks

Accept risks

Treat risks

Crisis management
2.2.1.2.2 Stakeholders’ Approach

This crisis approach with the involvement of stakeholders is best demonstrated by Gonzalez-Herrero and Pratt (1996), Ulmer (2001), and Coombs and Holladay (2001) whose studies have corroborated the importance of embarking on pre-crisis credibility positioning activities known also as reputation enhancement and in the process to achieve this outcome: establishing relationships with stakeholders. These scholars are heavily influenced by the work of Freeman (1984) and Freeman and Gilbert (1987) whose groundbreaking theoretical work in the eighties on stakeholder management is borrowed by scholars from many disciplines. Freeman and Gilbert (1987) maintained that successful organisations should look beyond the traditional shareholders and develop relationships with other groups. Organisations which do not pay attention to some of their non-traditional critical stakeholders run the risk of having a negative impact on their business activities.

Gonzalez-Herrero and Pratt’s (1996) “Integrated Symmetrical Model for Crisis-Communications Management” is based on Grunigs’s Situational Theory (1989) and on the emerging theoretical framework of issues management.

The authors describe the model as:

… one with three overarching principles: issues management, planning-prevention, and implementation. Inherent in each principle are two assumptions: (a) that every crisis has a life cycle, which can be influenced; and (b) that the best strategy to avoid negative media coverage – or its recurrence – is to engage in symmetrical, reputation-enhancing, socially responsible activities. Identifying key issues before they become issues (public issues) is a necessary prerequisite for averting reputation-threatening crisis.

Gonzalez-Herrero and Pratt (1996) argue that “… their model breaks with the predominant world view of using public relations to manipulate publics for the benefit of the organisation”. Contrary to this (unethical) view, they develop the concept of Symmetrical Communication, which demands a pro-active, ethical approach to crisis communication based on openness and cooperation with the public before an issue
matures into a crisis phase. The authors argue that this concept ensures that the organisation and its public have appropriate perceptions of each other.

This model is very attractive for a number of reasons. Firstly, it implies modern concepts of corporate social performance, stakeholder engagement (Wheeler & Sillanpaa, 1997) and the use of ethical response strategies in the “long term interest” of the organisation. Overall, it is a model that fits well with the desired view of a progressive, responsible and ethical organisation. Ulmer (2001) argues the importance of developing strong communication channels and positions with stakeholders prior to a crisis.

Coombs and Holladay (2001), who have attained the status of “gurus” in the crisis communication field, developed the Situational Crisis Communication Theory. This theory assumes that the crisis situation (type of crisis) is an integral part of the crisis response process. Coombs and Holladay (2001) see the relationship between an organisation and its various stakeholders as one that has “…great explanatory potential”. They divide what they call the “performance history” of the organisation into crisis history and past relationship-good works (known also as “relationship history”). From this point of reference Coombs and Holladay see a crisis as an event or interaction, within a larger relationship, between an organisation and its stakeholders. If an organisation “builds credibility armour before a crisis hits and if it establishes strong and solid relationships with its stakeholders, then chances are it will emerge successfully from a crisis”.

The stakeholder approach has been found to add value to a number of business areas beyond the crisis scenario. For example Tuffrey (1997) argued that there is “a positive link between corporate community involvement and human resource issues (staff morale and recruitment)”. According to these scholars, it does make sense, from the organisational perspective, to engage in stakeholder activities. Other authors have a broader view of the incorporation of the whole crisis management perspective, not just the stakeholder approach, into the strategic management process of the organisation. Preble (1997) is of the view that there is value in incorporating crisis management activities into the organisation’s strategic management model. According to Preble (1997) this incorporation would provide, the organisation “…with a defensive capability for preventing crisis or lessening their effects if a crisis occurs”.

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2.2.1.2.3 Public Relations Approach

In relation to crisis management, public relations scholars have focused traditionally on four areas: reputation, media management and crisis response strategies (broadly known as crisis communication) and planning for crisis. Public relation researchers have been concerned on ways to protect and enhance the reputation of organizations, as reputation accounts for 70 per cent of the value of the business, according to Neufeld (2007), who was citing an Economist Intelligence Report from 2005. Deephouse (2000) and Barney (1991) affirm that reputation is an intangible resource leading to sustained competitive advantage. Acquaa (2003) sees reputation as a moderator of strategic organizational activities and outcomes. These scholars share the view that public relations practitioners main’s goal should be to building strong corporate reputation for marketing and crisis management purposes. Fombrun and Shanley (1990) conclude that is important to understand the environment from which publics construct reputations perceptions for competitive advantage.

We found very few empirical studies focusing on how to protect a corporate reputation during a crisis, and/or how to rebuild it, after a crisis event (apart from the crisis response strategies discussed in paragraphs below). Several scholars (Schnietz and Epstein, 2005; Coombs and Holladay, 2001; Gonzalez-Herrero and Pratt, 1996) explored the financial value of a good corporate social responsibility reputation during a crisis. This reputation building strategy takes place usually before a crisis. We found many research studies on how to protect a reputation during a crisis drawing conclusions from individual case studies (Bloom, 1992). Other scholars like Ulmer and Sellnow (2002) argue that if we have to understand the positive outcomes of a crisis then corporate renewal is possible, based on a series of strategies aiming at stakeholder commitment, commitment to correction, and core values. These actions will eventually assist organizations to rebuilding their corporate reputations. Other public relations studies concentrate on response strategies that may protect the reputation of the organization during a crisis.

Media management and media reputation have been at the core of public relations researchers for many decades. Deephouse (2000) shares Neufeld (2007) view of seeing reputation as an intangible resource that leads to sustained competitive advantage but Deephouse extends this conclusion to include media reputation.
Organisations before the 70s followed the strategy (or better say the instinct of) to allow the head of the section or unit affected by the crisis to handle it the best he/she could do. The lack or limited flow of public information (limited radio, TV and print media coverage) worked on the side of organisations, as very few crises threaten organisational survival.

Crisis were associated to internationals events of the magnitude of the Cuban missiles (23/10/1962) or the assassination of John F. Kennedy (22/11/1963). From 11 books published on crises management (searching by keyword) from 1971 to 1983, 10 of them dealt with international diplomatic crises. The management of crisis in private organisations was not a research topic of interest yet. This situation changed substantially in the following 30 years. For instance, from 15 books found at the University of Melbourne Library Catalogue from the 1rst of January 2003 to September 2003, all of them dealt with organisational crises.

In the 70s the media industry was still in its infancy and was not yet acting fully as an independent political force (Cutlip, 1994). But in the 70s, there were two crises that showed the full potential power of the media: Watergate and the terrorist attack perpetrated by Black September during the 1972, Munich Olympic Games. World perceptions on USA politics and the Middle East conflict changed forever.

In the 80s the public eye, in the form of media outlets, slowly began to pay more attention to private organisational crises. The new role played by the media forced firms to abandon the old strategy of keeping themselves, as far as they could, from media scrutiny during a crisis. Organisations began to develop internal and external public relations and communication units to handle the area perceived as critical by the decision makers of that decade: the mass media (Cutlip, 1994). Although more than 13 years had elapsed since its development, Marshall McLugan (1967) concept of the world as a “Global Village” began to be digested by the top company leaders. The “motto” of the public relations managers was: if you manage the media (as an object that can be manipulated) you solve the crisis. The public relations art of “spinning” was born and with it was also born its counterpart: the media hostility effect.

Practitioners, like Murphy (1999) argues that multinational company executives are being trained to handle media interviews as a way of protecting corporate image in the face of crisis or media persecution. Murphy (1999) sees this action as levering the
plain-field between media and private organisations. Reiman (2006) affirms that media spin serves as a vehicle to benefit certain organisations (like the cosmetic industry).

The media hostility effect is seen by academics as a reaction to the public relations spin formulae. Delorme and Fedler (2003) argue that journalists treat public relations people with contempt and that the origin of this hostility could be explained historically. Some scholars call this phenomenon the “hostile media effect” (Gunther & Liebhart, 2006; Arpan & Raney, 2003; Banks, 1978). Gunther and Liebhart (2006) defined it as “the tendency of partisans on a controversial issue to see news coverage of the issue as biased in favor of the other side”.

Crisis response strategies are one of the most developed areas within the public relations field. Because most of this crises responses deal with the media as a key stakeholder, the crises response is also known as crisis media. Crisis response strategies are commonly classified according to their implementation timing in: pre, during and post crisis. The pre-crisis strategies either tend to identify and analyse strategies that prevent crises events ever occurring or to analyse specific type of organizations that seem to own/develop/have certain characteristics that help them to cope better in situations of crises. This type of analysis have explored concepts like organizational resilience (Sikich, 2003), highly reliable organizations, leading in turbulent times (HBR (2003), inoculation strategies (Easley, Bearden & Teel, 1995), Halo effect (Balzer 1992) etc.

The “during crises” response strategies focus mainly on the development and framing of messages to the stakeholders including internal company’s staff (Kernisky, 1997; Sellnow & Ulmer 1995; Coombs & Holladay, 1996), timing response strategies (Murphy, 1989); a combination of message development and the most efficient implementation time (Sturges, 1994; Gonzalez-Herrero & Pratt 1996; Pimsdorf, 1987, Lagadec ,1993). Finally, a number of response strategies have been identified by analysing case studies (Hearit, 1999; Kernisky, 1997; Sellnow & Ulmer, 1995; Sklarewitz, 1991; Cipalla, 1992).

For instance, Hearit (1999) and Hearit and Brown (2004) based on case studies, affirm that after a crisis an organisation’s apology often shortens the crisis cycle and ends the public’s negative repercussions toward the organization. Hearit calls the use of
this finding as the Apologia Strategy. It is not uncommon for successful response strategies drawn from case studies, to be extrapolated to any other crisis situation without considering the specific context of the political, cultural and social environment from which the response strategy was drawn. It was not until Arpan (1999) carried out an empirical research on the use of a pre-emptive disclosure by an organization in crisis, that some of the findings reached by Hearit were tested empirically. Arpan calls this strategy “Stealing Thunder”. Arpan found that an organization in crisis that self-discloses relevant, negative information, rather than allowing another party to disclose the information, can receive higher credibility ratings among audience members who learn about the crisis.

Higher ratings of credibility attributed to an organization’s message should result in greater acceptance of that message – a desirable outcome for an organization delivering a crisis-related message (Coombs, 1999). In other words self-disclosure (even negative) was an effective strategy in contrast with the possibility of having and external party discovering damaging information. Refusal to supply information or responding to media questions was more negative to the firm than self disclosure. According to Arpan, self-disclosure certainly seems to be a risk worth taking for organizations in crisis.

Along these lines, the dissociation strategy aims, according to Hearit (1995), to purify their damaged images through a negative strategy of dissociation and a positive strategy of corrective action and reaffirmation of public values. Perelman and Olbrechts-Tyteca (1969) sees it an argumentative technique whereby communicators seek to break links between ideas.

The full disclosure refers to the response strategy of conveying information during a crisis to the stakeholders as soon as this information becomes available. Dilenschneider and Hyde (1985), sums up this strategy with the motto: “Tell it all and tell it fast “. This strategy was accepted by practitioners as a “Cardinal rule”. But this strategy has been questioned by a number of authors like Kaufmann; Kesner and Hazen (1994) who affirm that the full disclosure strategy is a myth, constraining its use to very few circumstances, and emphasizing the point of carefully constructing the firm’s message in order to avoid alienating the public. Both group of authors, based their
conclusions on case studies and by obtaining the opinion from executives and practitioners in the field.

The post-crises response strategies, aim to re-build the reputation and credibility of a company at the centre of a crisis event. Most of them have been developed analyzing case studies (Ulmer & Selnow, 2002; Mitroff, 2002).

In the 90s, public relations scholars start developing the idea of preparing for a crisis, via the development and implementation of crisis communication plans, as proposed by practitioners like Augustine (1995) who argued that “… we must make plans for dealing with crises: action plans, communication plans, fire drills, essential relationships.”. More academic approaches like Duke and Masland (2002) and Fearn-Banks (1993) also back up this argument. “…in the mid-1990s, many large corporations still have no crisis management or crisis communication plans”. Both Augustine and Fearn-Banks cited Steven Fink’s survey, in negative overtones, that 50% of the 405 respondents from the Fortune 500 CEO’s declared that they did not have a plan for dealing with crises, but nevertheless, fully 97% felt confident that they would respond well if a crisis occurred. Crisis plans were sold by academic and practitioners as the panacea to prevent and manage crises. A more balance view is offered by Yang (1999) concluded: “…a good communication plan cannot solve a crisis, but it can reduce the damage, including helping to maintain a positive corporate identity and keeping the normal operation of a company”. This position remains very popular among public relations practitioners.

2.2.1.2.4 Governance Approach

We know by anecdotal evidence that high profile crisis tend to have a very strong effect at the governance level (board members, CEO and senior managers). Crickey.com has reported for many years the resignation of board members and CEO of several large Australian companies that experienced high profile financial crises.

The literature points to a correlation between the resignation of board members and the CEO. Research studies carried out by Ward et al. (1999) and Farrel and Whidbee (2000) found that when a company is in distress and the CEO is forced to resign, the board members follow suit and vice versa. Dedman and Lin’s (2002) research on the “Shareholder wealth effects on CEO departures – evidence from the UK
found that “… the markets react negatively to announcements of top executive departures, especially when the CEO is dismissed or leaves to take up another job”. Gibelman and Sheldon’s (2002) research on the implications of the departure of the CEO concludes that the conditions of CEO departure could put in jeopardy the survival of the organisation. Miller (1993) maintains that in the context of bad performance, succession events create a diffusion of authority. But Warner et al. (1988), who carried out a study on stock price variations as a result of top management (CEO, President or chairman of the board changes), obtain different results. Their paper concludes that “… no average stock price reaction is detected at announcements of top management change”. However, Reinganum (1985) finds that the effect of the CEO succession on the stockholder wealth is tempered by the context of the change. This view is also supported by Friedman and Singh (1989).

In general terms anecdotal and empirical evidence suggest, that in most cases, the resignation of board members, the CEO and senior managers, as a consequence of a crisis, has a negative effect on the tangible and non-tangible assets of the organization.

2.2.1.3 Summary

From the review of the body of knowledge on crisis management we identified a number of key constructs, dimensions and variables that helped us to address our research questions. For instance: strategic preparedness via strategic planning and risk management (Sheaffer & Negrin, 2003; Yang, 1999; Duke and Masland, 2002 and Fearn-Banks, 1993), crisis preparedness and resilience via stakeholders’ history (Coombs & Holladay, 2001; Gonzalez-Herrero & Pratt, 1996) and crisis history (Coombs & Holladay, 2001) and concepts such as risk-taking behavior (Thaler & Johnson, 1990; Slattery & Ganster 2002). These dimensions formed the core of our model to measure their relationships with the crisis outcomes.

2.2.2 Controversies, Breakthroughs and Gaps in Existing Research

2.2.2.1 Controversies: A Multi-Discipline Approach

Crisis management scholars tend to approach crisis management from a single discipline. A minority of researchers approaches it from a multi-discipline perspective. Crisis management intersects with several disciplines, such as
psychology, mass media, communications, public policy, reputation (image) management, risk management, public relations, strategic management, ethical discourse, relationship management, stakeholder management and international relations.

Although Pearson and Claire (1998) strongly support the multi-discipline approach, they also recognise that for others such an approach is the recipe for chaos that produces a “...‘Tower of Babel’ effect, where there are many different disciplinary voices, talking in different languages to different issues and audiences”.

Crisis management scholars like Shrivastava (1993) analyse the causes, consequences, and management of organisational crises from a single disciplinary frame.

More multi-discipline theories and models have to be developed to settle this argument. One is proposed by Boyer (2002) who, as part of her PhD dissertation, researched crisis management from a public relations perspective and took into consideration recent advances made in the area of psychology. There are other perspectives that go beyond a multi-discipline approach: for instance, the unifying framework of Chaos Theory. Chaos Theory is a controversial theory that, according to Seeger (2002), aims to understand the behaviour of complex non-linear systems, and seeks to be more a unifying theory than a multi-discipline approach. It is attractive inasmuch as it moves beyond the traditional crisis communication and public relations frameworks of strategic responses, crisis prevention, image restoration, and organisational apologia.

The single disciplinary frame is the type of framework this study has chosen to address the research questions.

2.2.2.2 Gaps: Between Research and Practice
There is an evident gap between theory and practice. Culbertson et al. (1993) noted that public relation practitioners appreciate theory for academic reasons but see little use for it outside the classroom. Immanuel Kant (1724-1804) examined the relationship between theory and practice, noting that the soundness of any theory grounded in experience depends on its applicability. Very few empirical studies have been carried out on the efficiency of crisis preparedness and response strategies related to crisis
issues. Boyer (2002) affirms that crisis managers have relied on anecdotal evidence and qualitative findings for guidance and therefore there is a dearth of empirical evidence to support suggestions for crisis management. This research tried to fill this gap by identifying a minimum range of crisis preparation strategies to contain the most negative outcomes of a crisis event, therefore increasing the management effectiveness when dealing with a crisis event. This research also aimed at building the “first stone” for the future development of best strategic practices to deal with a high-profile event. We did that by identifying a set of tangible and non-tangible outcomes and measuring the organisations’ strategic approach to minimise its negative outcomes (see Appendix 1: Table 1).

2.2.2.3 Gaps: Lack of Empirical Studies into the Level and Type of Crisis Preparedness and their Relationship to Crises Outcomes

While the research community has identified the need for crisis preparedness (Mitroff & Alpaslan, 2003; Pearson & Mitroff, 1993; Sheaffer & Mano-Negrin, 2003; Richardson, 1995), it has largely overlooked exploring the empirical relationship between crisis preparedness and crisis outcomes. In particular, when in the parallel field of strategic planning, its relationship with firm performance has not been settled, because this field’s strategic research studies have found inconsistent results (Boyd & Reunning-Elliot, 1998; Miller & Cardinal, 1994). In this sense, the measurement of crisis performance attempted by this study is one of the first of its kind.

Mitroff and Alpaslan (2003) approach crisis preparedness in terms of the long-term visible benefits (at macro level) it brings to the organisation, in terms of survival rates and crises repetition. They affirm that crisis preparedness reduces the number of calamities organisations have to grapple with. Between 1998 and 2001, the average crisis-prepared organisation (Fortune 500) reported that it had coped with 21 emergencies; those that were less prepared faced 33 crises. Also crisis-prepared organisations stayed in business longer as, according to the author’s questionnaire carried out in 2002, proactive organisations had been around for 83 years on average, 24 per cent longer than reactive organisations whose average life span was 67 years. Mitroff and Alpaslan also found an interesting relationship between pro-active
organisations and average return on assets, inasmuch as these types of organisations had double (6 per cent) the average return of the crises prone group, posted in the observed year (2001). These academics also link crises preparedness to higher reputation levels, better protection of assets via financial risk management practices and lower crisis-related costs (although we did not find ground evidence to back up this last conclusion).

Sheaffer and Mano-Negrin (2003) address the problem of crisis preparedness/proneness from the perspective of why organisations decide to be prepared to manage a crisis by examining the managerial orientations and attitudes linked to these attributes. Sheaffer and Mano-Negrin, drawing on other scholars, conclude that crises preparedness or proneness is amongst the most extensively theorised aspects in the wider domain of business failures, yet, they conclude, this has drawn scant scholarly attention as a theme worthy of empirical research.

Gonzalez-Herrero and Pratt (1996), and Coombs and Holladay’s (2001) academic work has been more oriented towards researching crisis preparedness strategies that may enhance an organisation’s resilience to cope better with crisis events.

There are no studies exploring the relationship of crisis preparedness and its immediate crisis effects measured in terms of tangible and non-tangible outcomes (direct costs, impact on revenue, impact on profits, impact on reputation etc.). Our main qualitative question: “Can the capacity of an organisation to influence crisis outcomes be explained by the organisational crisis preparedness dimensions like strategic preparedness, relationship history and crisis history?” filled this gap.

In short, the following literature gaps were identified:

- the lack of organisational crises preparedness studies (the exception being the study of Sheaffer and Mano-Negrin (2003) on “Executive Orientations as Indicators of Crisis Management Policies and Practices”)
- the lack of studies on the level and type of crisis preparations in relation to the outcomes of a crisis (i.e. organisational failure). However, there are a number of studies on the impact of a certain type of crises, on specific financial outcomes-share price (Hooker & Salin, 1999; Marcus & Goodman, 1991)
• the lack of definitions of the financial outcomes of crisis events (Coleman, 2004)
• the lack of studies on how constructs of strategic preparedness, relationship and crisis history may explain the crisis outcomes, as identified by Pearson and Mitroff (1993), and Coombs and Holladay (2001).

2.2.2.4 Breakthroughs: Epistemological Breakthroughs in Crisis Management

The management of crisis situations did not arise as a concept deserving academic attention until decision-makers understood the power of the media to influence public opinion. Milestone texts such as the one written by McLuhan (1967), *The Medium is the Massage*, articulated this breakthrough. The media allowed organisations to reach their stakeholders immediately after the explosion of a crisis event from any point on the planet. Organisations were provided with the most important tool for influencing a high-profile crisis event: the media.

New theoretical approaches have been surfacing which may result in further breakthroughs. In particular the recent literature on crisis management tends to combine a positivist approach shaped by naturalist assumptions like limiting research results to cultural and social settings (Taylor, 2002). The role that stakeholders play in the way a crisis develops is attracting a wider academic audience, as illustrated by the research conducted by Hart and Sharma (2004); Ulmer (2001), Birch (1994), and Jonker and Foster (2002). Ulmer and Sellnow (2002) are even proposing that crises may have positive outcomes for the organisation as they are an opportunity for renewal. This assumption has not been tested empirically yet.
Chapter 3
Research Framework

3.1 Relevant Research Models, Key Research Definitions, Constructs and Variables

3.1.1 Models

Based on the literature review process this research identified a number of key theoretical sources to address the research question: the Integrated Symmetrical Model for Crisis-Communications Management developed by Gonzalez-Herrero and Pratt (1996); the Situational Crisis Communication Theory developed by Coombs and Holladay (2001); and the concept of crisis preparedness as developed by Sheaffer and Mano-Negrin (2003), and Mitroff and Alpaslan (2003). The models of Gonzalez-Herrero and Pratt, and Coombs and Holladay converge on the importance of establishing solid relationships with the organisation stakeholders to influence crisis outcomes. Gonzalez-Herrero and Pratt (1996) see this type of relationship as something that would enhance the organisation’s reputation and as such influence the stakeholders’ perception of a crisis. They noted that a favorable pre-crisis stakeholder relationship is an important factor and a valuable asset to crisis management, views supported by a variety of scholars (Birch, 1994; Couretas, 1985; Seitel, 1983). Our research project tested empirically this assertion. Coombs and Holladay see crisis responsibility and the organisation’s reputation at the centre of the “crisis dynamics”. Their main hypothesis is that the perceptions of perceived control and performance history shape attributions of crisis responsibility (by the stakeholders.) The inference is that if the stakeholders attribute less crisis responsibility to the organisation than other external factors/entities, the organisation’s reputation will increase therefore receiving potentially supportive behaviour from the stakeholders (during a crisis event).

This paper argues that the association that Coombs and Holladay (2001) have tested between relationship history and reputation may not be enough to explain significant variances in crisis outcomes (such as direct crisis costs or impact on staff morale). Mitroff and Alpaslan (2003) stressed the importance of an organisation’s preparation to manage a crisis. But they lacked the empirical evidence to establish a
more measurable relationship between the level and type of crises preparedness and crisis outcomes.

3.1.2 Key Definitions

From the literature, the following concepts were identified as key to addressing our research question: organisational crisis, crisis preparedness, crisis management, effective crisis management, crisis event and crisis outcomes.

3.1.2.1 Organisational Crisis

Organisational crisis is defined by Fearn-Banks (1993) as:

… a major occurrence with a potentially negative outcome affecting an organisation or industry, as well as its publics, products, services, or good name. It interrupts normal business transactions and can sometimes threaten the existence of the organisation. A crisis can be an act of terrorism, fire, a boycott, product failure.

Pauchant and Mitroff (1992) claim that “… a corporation (may) encounter a number of crises, for example, contamination, fire, leaks, layoffs, takeovers, rumours, mergers, and downsizing just to name a few”. They see crises as the normal result of the interaction of complex systems and faulty decisions by those who manage them, and therefore are inevitable and unavoidable. Tabris (1984) claims that crises vary in degree and probability but all share the threat of causing damage to organisations, which can be measured in terms of harm to the corporate image and actual financial losses. Seeger, Sellnow and Ulmer (1998) see organisational crisis as (an event) that conveys a fundamental threat to the very stability of the system, a questioning of core assumptions and beliefs, and risk high-priority goals, including organisational image, legitimacy, profitability, and ultimately survival. From a management theory perspective, Pearson and Clair (1998) define organisational crisis as “… a low-probability, high-impact event that threatens the viability of the organisation and is characterized by ambiguity of cause, effect and means resolution, as well as by a belief that decisions must be made swiftly”.

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The initial crisis event frames an environment which attracts the attention of all the stakeholders: regulators, financial, shareholders and markets, the industry, suppliers, clients, the public and so on.

Coombs (2002) says:

… a questionnaire of the Crisis Management literature reveals two threads. First a crisis has the potential to disrupt operations – the organisation cannot function properly. Second, a crisis can threaten the organisation’s reputation – how the stakeholders perceive the organisation.

As such, an organisational crisis situation shakes the processes and business outcomes of the corporation and re-aligns its priorities from profit-making, market growth and quality to focus to the most primal organisational objective: survival. This definition includes “high probability – high impact events” that also threaten the viability of the organisation which were not considered by Pearson and Clair (1998).

**Definition of Organisational Crisis:** a high-impact event that threatens the viability and reputation of the organisation and re-aligns its priorities from profit-making, market growth and quality to focus on survival

(Pearson and Clair, 1998; Coombs, 2002)

### 3.1.2.2 Crisis Management

Kreps (1986) defines crisis management as “the use of public relations to minimize harm to the organisation in emergency situations that could cause the organisation irreparable damage”. A more elaborate definition from a multi-discipline perspective is given by Pearson and Clair (1998) as “…a systematic attempt by organisational members with external stakeholders to avert crises or to effectively manage those that do occur”.

Crisis management academics and practitioners have parted from the basic positivist assumptions that crises are objects that could be managed by following certain principles, strategies, and protocols (Łukaszewski, 1997) and guidelines (CCG, 2001),
and that the actions taken by the organisations at the eye of the storm, could exert a considerable influence on the outcomes of the crisis (Pearson & Clair, 1998).

3.1.2.3 Crisis Events (Situations)

Fink (1986) proposes a complementary definition to that of organisational crises when these move into the public arena. Fink sees them as “crises situations” that he defines as incidents that fall under close media or government scrutiny, run the risk of escalating in intensity, interfere with normal business operations, jeopardise the organisation’s positive public image and damage the bottom line. McDonald and Hartel (2000) use the term “crisis event” to highlight the acute phase of the crisis when the problem erupts into the public through media coverage. Lerbinger (1997) suggests that during every major crisis, an organisation must endure a trial by media.

The news media are, according to Lerbinger (1997), the watchdog of society, and whether liked or not, they judge the behaviour of organisations. Within the confines of this research we use the terms “crises situations”, “crises events” and “high-profile crises” synonymously.

3.1.2.4 Crisis Event Characteristics

Based on the above definitions, we can reasonably identify the following organisational crisis characteristics:

a. an event that threatens the long-term survival of the organisation (Fearn-Banks, 1993; Pearson & Clair, 1998)
b. tends to be inevitable and unavoidable (Pauchant & Mitroff, 1992)
c. interrupts normal business transactions (Fearn-Banks, 1993)
d. demands the full attention of the decision-makers to overcome it (Pearson & Mitroff, 1993)
e. may damage the image and reputation of the organisation irreparably (Tabris, 1984)
f. are internal and/or external (Mittroff, Shrivastava & Udwadia, 1987)
g. are often caused by faulty decisions, inattention to emerging problems and neglect of ethical or social responsibilities (Ginzel, Kramer & Sutton, 1992)

But not all crises become part of the public interest. Only those that are widely covered by the media attract the status of “crisis event”. This type of crisis situation has these additional characteristics:

h. are known by the general public (Fink, 1986)
i. attract wide media coverage (Lerbinger, 1997)
j. can be influenced by the use of the mass media (McLuhan & Fiore, 1967).

3.1.3 Key Research Constructs

Bacharach (1989) citing Kaplan (1964) defines “constructs” as terms, which, although cannot be observed either directly or indirectly, may be applied or even defined on the basis of the observable. From the literature, this research identified two key constructs: Crisis Preparedness and Effective Crises Management.

<table>
<thead>
<tr>
<th>Construct A</th>
<th>Construct B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis Preparedness</td>
<td>Effective Crises Management</td>
</tr>
</tbody>
</table>
3.1.3.1 Construct A: Crisis Preparedness

For the purpose of this research we make a clear distinction between the activities that an organisation may take to prevent crises and those that an organisation takes to prepare itself to manage a crisis effectively – although one process leads to the other in a continuum. This research defines “crisis preparedness” as a state of corporate readiness to predict and effectively address internal and exogenous adversary circumstances with the potential to inflict a multidimensional crisis, by consciously recognising and proactively preparing for its inevitable occurrence (Sheaffer & Negrin, 2003). This state of corporate readiness is achieved by the interaction of three dimensions: strategic preparedness, relationship history and crisis history. The research incorporates the dimension of strategic preparedness proposed by Mitroff and Alpaslan (2003) and the construct of performance history (relationship history and crisis history) proposed by Coombs and Holladay (2001). These dimensions are not included in their original role of explaining crisis responsibility, but to explain the organisational capacity to influence crisis outcomes. Crisis-prepared organisations are seen as pro-active in nature. Scholars have defined the opposite to crisis-prepared, as crises-prone organisations and industries that do not see value in preparing for the inevitable as reactive entities. (Richardson, 1995; Meyer, 1991).

3.1.3.2 Construct B: Effective Crisis Management

Based on the literature, we defined effective crisis management as a systematic set of pre-crisis and crisis response strategies that exert considerable and visible influence to minimise the negative impacts resulting from a crisis event (Mittroff, Shrivastava & Udwadia, 1987; Steers, 1977; Gonzalez-Herrero & Pratt, 1996; Pearson & Clair, 1998). The assessment of effective management was constructed in relation to the variation range of expected values of tangible or non-tangible crisis outcomes (see point measurable variables as opposite to a subjective values assessment from, for example, the stakeholders). This research focuses on pre-crisis strategies only. However, we have captured enough qualitative and quantitative data to analyse in depth the relationships between crisis response strategies and crisis outcomes. This kind of analysis is suggested for further studies.
3.1.4 Dimensions of Crisis Preparedness and Effective Management

The following three dimensions are components of our crisis preparedness construct. Each of these dimensions has a set of proposed measurable independent variables derived from the literature and from an exhaustive scanning of the media (see Figure 3.A).

Figure 3.A: Crisis Preparedness Dimensions

3.1.4.1 Strategic Preparedness

This is a dimension that has been widely explored as crisis planning, by researchers (Katz, 1987; Duke & Masland, 2002; and Fearn- Banks, 1993) whose aims have been to prevent, anticipate or prepare for crises. It is grounded in studies performed by risk management and strategic planning scholars (as discussed in the literature review).
Based on the literature and the media scanning, we identified and grouped 48 independent variables comprising the strategic preparedness dimension into three groups: process, documents and training. These groups were subsequently divided into three, four and two subgroups respectively based on their role regarding crisis management either as a process, documents or training with general strategic pre-crisis orientation (vision, short- and long-term planning and code of conduct) or specific crisis prevention or crisis management objectives.
3.1.4.2 Stakeholder Relationship History

As defined by Coombs and Holladay (2001), relationship history is the relationship between an organisation and its various stakeholders. This relationship is measured *pre, during* and *post crisis*.

*Figure 3.C: Stakeholders Relationships Categories*

We focused in this thesis on the stakeholder relationship *pre-crisis*.

The analysis of the “*during*” and the “*post-crisis*” stakeholder relationships was put aside for future studies. We identified a total of 18 independent variables based on the literature and a media scanning of crisis events.

3.1.4.3 Crisis History

This is defined by Coombs and Holladay (2001) as a concept that indicates whether a crisis was a “one-off” event or part of a “pattern of similar crises”. We also included in this dimension, variables to measure the extent to which the organisations
learned lessons from these previous crisis events. A total of six independent variables were examined.

Figure 3.D: Crisis History Categories

3.1.4.4 Crises Outcomes

Crisis outcomes (or dependent variables) are a novel construct addition to our research model, as the literature in this field commonly mentions this concept without defining it or uses it in different contexts. Mitroff and Alpaslan (2003) implicitly refer to crisis outcomes at a macro level when they affirm that crisis preparedness reduces the number of calamities organisations have to grapple with, ensures they stay in business longer and achieves lower crisis-related costs without providing hard evidence on this last point. Ulmer and Sellnow (2002) use the concept of “outcomes of crisis” without an overt definition. Outcomes of crisis (Ulmer & Sellnow, 2002), crisis reactions (Hooker & Salin, 1999), consequences of crisis and internal effects (Herman, 1963) also refer to different impacts of a crisis. In the case of Herman, he focuses on the
consequences of crisis in relation to the organisational response proposed in terms of values and behaviours.

This research defines crisis outcomes at a micro level as “the visible tangible (financial and non-financial) and non-tangible (staff morale and reputation) effects that can be attributed to an internally generated crisis event”. It will concentrate on some of the key negative tangible and non-tangible effects (financial costs, resignations of staff and staff morale).

**Figure 3.E: Crisis Outcomes Indicators (Dependent Variables)**
Therefore we have defined crisis outcomes as *the positive/negative assessments and impacts that the high-profile crisis had on tangible and non-tangible crisis outcome indicators*. The tangible crisis outcome indicators include four non-financial indicators that measure the impact on governance (resignations), policies, structure, inquiries/litigation and four financial indicators: the direct financial costs of the crisis, the share price, revenues and profits. These are interpreted as *negative* if, for example, the price of the shares was lower *during* and *after* the crisis than the price achieved by the organisation *before* the crisis erupted.

We assumed that the crisis itself was the main factor that contributed to the variance in the share price. The non-tangible crisis outcomes indicators comprise the assessment and impact on an organisation’s reputation and staff morale. This research leaves the potential *positive effects* (opportunity to reform, resilience strength, rethinking on the importance of strategic preparedness etc.) for further studies. We identified a total of 33 dependent variables.

### 3.1.5 Measurable Independent, Dependent and Moderating Variables

We collected information on a number of independent and dependent variables in order to conduct different types of analyses. For our descriptive analysis we analysed 72 independent variables and 33 dependent variables (crisis outcomes) and 8 profiling variables (demographics of respondents). For our multivariate analysis we evaluated initially 65 independent variables and 2 moderator variables. These independent variables were subjected to the factor analysis resulting in 14 independent variables grouped in 4 factors. For other statistical reasons, described in Chapter 6 “Quantitative Analysis”, we reduced the number of dependent variables from 28 to 20 and the number of moderator variables from 2 to 1.

#### 3.1.5.1 Independent Variables

**3.1.5.1.1 Strategic Preparedness Dimension**

Based on a summary for planning indicators proposed by Boyd and Reunning-Elliot (1998), this research reinterpreted these indicators to define measurable independent variables of strategic preparedness:
Two indicators were added by this research in the qualitative study, derived from Coombs and Holladay’s dimensions: the identification, gathering and analysing of key stakeholders’ agendas (known as stakeholder analysis), motivations and attitudes that can be used by the organisation to frame a strategic response during a crisis event and the strategic reputational planning activities (reputation plan processes and management) to enhance the organisation’s public image. The 13 independent variables were divided into processes and documents as some organisation may have in place processes to deal with specific risks to the organisation without producing a formal document as a result of these management exercises (see Figure 3.F).

### 3.1.5.1.2 Stakeholder Relationship History

This covers a more detailed version of the pre-crisis positioning of the organisation’s stakeholder relationship independent variables as operationalised by Coombs and Holladay (2001):

This research project added the following:

<table>
<thead>
<tr>
<th>Planning Indicators (Boyd and Reunning-Elliot)</th>
<th>Crisis Strategic Preparedness Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision/Mission Statement</td>
<td>Vision and values statement</td>
</tr>
<tr>
<td></td>
<td>Code of Conduct</td>
</tr>
<tr>
<td>Trend Analysis</td>
<td>Internal post-crisis analysis</td>
</tr>
<tr>
<td></td>
<td>HP crisis analysis</td>
</tr>
<tr>
<td></td>
<td>Issues Management</td>
</tr>
<tr>
<td>Competitor Analysis</td>
<td>Crisis event analysis (own and external)</td>
</tr>
<tr>
<td>Long Term Goals</td>
<td>Long Term planning</td>
</tr>
<tr>
<td>Annual Goals</td>
<td>Short term planning</td>
</tr>
<tr>
<td>Short Term action Plans</td>
<td>Risk Management</td>
</tr>
<tr>
<td></td>
<td>Crisis Communication</td>
</tr>
<tr>
<td>Ongoing evaluation</td>
<td>Audits</td>
</tr>
</tbody>
</table>
a. initiatives being established to strengthen the relationship with key stakeholders (i.e. media, community engagement, advertising, charities, NGOs etc.

b. stakeholders’ level of organisational investment to attain these initiatives (in relation to the revenue of the organisation – for non-profit and the profits for private organisations)

*Figure 3.F: Strategic Preparedness Variables*

- Strategic Preparedness
  - Processes and Documents
    - Strategy
      - Vision and values
      - Code of conduct/ ethics
      - Long term strategic planning
      - Short term strategic planning
      - Audits (operational, financial)
    - Crisis Prevention
      - Issues management analysis
      - Risk management
      - Stakeholder analysis
    - Crisis Management
      - Crisis management
      - Reputation management
      - Crisis communication
      - Internal post-crisis analysis
      - HP crises analysis (other organisat)

c. level of collaboration with competing organisations, intra-industry and inter-industry to co-operate during a crisis event. These additional variables informed our qualitative analysis. In total we identified 18 independent stakeholders’ relationship variables divided into 5 groups: inner-core, external industry, media, government and community (*see Figure 3.G*).
3.1.5.1.3 Crisis History

This dimension includes a modified version of Coombs and Holladay’s (2001) independent variables: instead of the history of similar crises we examined the number of high-profile crises experienced by the organisation and the number that were a threat for the organisation’s survival. This research project added the existence of formal feedback mechanisms to pass on this learning experience to the strategic preparedness dimension and the incorporation of these recommendations to the way the most recent crisis event was managed.

Figure 3.H: Crisis History
Figure 3.G: Stakeholder Relationships Variables
3.1.5.2 Dependent Variables (Crisis Outcomes)

We defined the crisis outcomes or operational reasons as “the positive/negative impacts that the high-profile crisis had on tangible and intangible crisis outcome indicators”. The crisis outcomes were classified in two groups of measurable tangible dependent variables (financial and non-financial) and one group of non-tangible measures (staff morale and reputation). For descriptive purposes only we added other independent variables to measure the time the organisation took to return these three groups of tangible and intangible dependent variables to their pre-crisis levels. Although a conceptual differentiation between objective and subjective crisis outcome measures does not appear in the crisis management literature, it is, however, widely covered in the strategic management literature. While acknowledging the difference between these two fields of study, we drew some parallels between effective management of crises and organisational performance in relation to their common goal to ensure organisational survival.

Strategic management scholars like Dess and Robinson (1984) identify three major frameworks to conceptualise organisational performance: the goal approach, the systems resource approach (key internal and external factors upon which the organisation depends for survival), and the constituency approach which views the organisation as existing to benefit numerous constituencies. Dess and Robinson (1984) identify the return on assets and growth in sales as objective measures of organisational performance. Venkatram and Ramanujam (1986) conceptualise measures of financial performance as a sub-set of financial and operational performance (equal to business performance) and the former as a sub-set of organisational effectiveness.

Pearce II, Robbins and Robinson (1987) identify return on assets, return on sales, and sales growth as dependent variables of financial performance. For the purpose of this research, we borrowed from these authors, a number of elements to define our tangible outcomes, comprising four financial measures: direct financial costs of the crisis, share price, revenue, profits, and 11 tangible non-financial measures. We defined direct financial costs of the crisis as “any expenses that were clearly generated by the organisation’s attempts to minimise the negative outcomes of the high-profile crisis such as public relations activities, advertising,
repairing/corrective costs (product withdrawal), external consultants, setting up and operating emergency telephone lines, filming TV footage, financial emergency relief to people or businesses affected, compensation, contingent travelling expenses etc. Expenses that, in the absence of the high-profile crisis, would not have taken place within the organisation”.

The definitions for the tangible financial measures for share price, revenue and profit were drawn from the Australian Tax Office (WEB: ATO):

- **Revenue**: the total amount of money received by an organisation for goods or services sold before deducting expenses (WEB: ATO)
- **Share price**: represents the market price of the organisation’s ordinary shares (Van Horne et al., 1990)
- **Profits**: the total amount of money retained by an organisation for goods or services sold after deducting expenses (WEB: ATO).

The tangible financial outcomes were measured from two perspectives. The first one was the *assessment* given by the respondent of the questionnaire on the rating they gave to the overall outcomes of the financial dependent variables. The second was in relation to the *extent of the impact* the high-profile crisis had on these indicators using as a point of reference from one end “historically low value levels” to the other end “historically high value levels”. The *assessment* gave us a perspective on how the respondent evaluated the effect of the crisis outcomes on the organisation. The *impact* gave us the extent to which the dependent variables affected the organisation from a historical perspective.

The tangible non-financial outcomes were classified in four groups:

- *impact on governance* which measures the high-profile crisis level of impact on the resignation of board members, the CEO, senior staff or criminal charges to key staff members
• policy/organisational which measures the high-profile crisis level of impact on substantial changes in policies or the organisational structure

• regulatory/intervention which measures the high-profile crisis level of impact on the establishment of a regulator’s enquiry and/or the appointment of independent administrators

• enquiries/litigation which measures the high-profile crisis level of impact on the establishment of a Federal or State enquiry and prolonged civil litigation processes.

The non-tangible outcomes were also measured by the assessment given by the respondent of the questionnaire on the rating they gave to the overall outcomes of the reputation and staff morale dependent variables. The second related to the extent of the impact the high-profile crisis had on these non-tangible indicators using as a point of reference from one end “historically low value levels” to the other end “historically high value levels”.

3.1.5.3 Moderator Variables

The moderator variable perspective is based on the premise that the impact a predictor variable has on a criterion variable is dependent on the level of a third variable termed as the moderator (Terziiovski, 1997). In this research we have identified two moderating variables: organisational size and type of crisis situation. But only the moderator variable size was ultimately included in our multiple regression analysis as we could not capture enough information on the moderator variable type of crisis to make the results statistically significant.

3.1.5.3.1 Organisational Size

The size of the organisation has been identified in a number of crisis management studies as a variable that moderates the dependent variable. A study conducted by Hooker and Salin (1999) found that after a crisis event (e.g. product recall) financial markets reacted more strongly against small firms than bigger firms. As such, the size of the organisation may help to explain a difference in crisis outcomes.
Our research categorises our targeted organisations by size based on their number of full time equivalent employees.

### 3.1.5.3.2 Type of Crisis Situation (Typology)

We reviewed the literature on the typology of crisis events in order to address the subsidiary research question “has the type of crisis event had any impact on the crisis outcomes?” The Coombs and Holladay (2001) model implies that the crisis situation can influence the selection and effectiveness of crisis response strategies. As such, the type of crisis situation is seen as a key moderator in this research. We focused on this moderator variable in our qualitative case analysis and a descriptive statistical analysis of frequencies on the type of crises as we could not collect enough statistical information per type of crises to perform multi-regression analysis. In any case, we do not believe this issue affected the findings of this research substantially as this study focused on pre-crisis strategies rather than crisis response strategies.

Scholars have tried to classify crises in a variety of ways in the anticipation that classification may help them discern the manageable from the unmanageable crisis that is, crisis threatening the long-term survival of the organisation, or those crises that are only representing material losses for an organisation (i.e. a building fire). The challenge now is which crises, among those that threaten the long-term survival of organisations, can be influenced and which are beyond the organisations’ capacity to be resolved or require a different set of knowledge and skills or response strategies.

The typology of crises according to their source may have provided guidance on how to develop some specific response strategies. By identifying the crisis as external or internal (Mittroff, Shrivastava & Udwadia, 1987), we could select strategies that minimise the role of the organisation on the development of the crisis situation. The trigger source of crises: internal or external is another key factor that may imply the necessity to define and develop different sets of response strategies. Other similar typology of crises may be useful to develop more refined strategies. For instance, the Institute for Crisis Management divides crises into smoldering and sudden. A smoldering crisis is one that starts out small and internal, and should be spotted as a problem and a potential crisis before it goes public. Sudden crises are unexpected events
that include industrial accidents, natural disasters and so on. According to the ICM in its 2002 Report, 80 per cent of the crises were triggered as a result of internal actions (or in-actions) taken within the organisation. The 20 per cent difference was attributed to sources external to the organisation.

Coleman (2004) identifies six types of crises according to their sources: product defect, operational failure (fires), financial (trading losses), organisational (decision making, labour disputes), regulatory and legal (action by government identities), threats and extortion.

For descriptive purposes only, this study developed a classification based on Coleman’s findings (2004) as focused on crisis events triggered by internal organisational sources.

*Table 3.A: Types of Crisis*

<table>
<thead>
<tr>
<th>Types of Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational and Organisational</strong></td>
</tr>
<tr>
<td>Operational, product defect</td>
</tr>
<tr>
<td>Operational, industrial dispute</td>
</tr>
<tr>
<td>Operational, information technology</td>
</tr>
<tr>
<td>Operational, other</td>
</tr>
<tr>
<td><strong>Governance, Financial, Regulatory &amp; Legal</strong></td>
</tr>
<tr>
<td>Financial</td>
</tr>
<tr>
<td>Organisational</td>
</tr>
<tr>
<td>Regulatory/Legal</td>
</tr>
<tr>
<td>Governance</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
</tr>
<tr>
<td><strong>External and other</strong></td>
</tr>
<tr>
<td>Threat/ extortion/fraud</td>
</tr>
<tr>
<td>Terrorism (targeting your organisation only)</td>
</tr>
<tr>
<td>External, hostile financial takeover</td>
</tr>
<tr>
<td>External, political</td>
</tr>
<tr>
<td>External, other (i.e SARS, September 11, Bali Bombing)</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

The type of crisis was part of our descriptive analysis but could not be included in our multiple regression analysis because of limited sample size to make statistically useful conclusions.
3.2 Research Design

This research followed an empirical approach commonly known as the triangulation method, using both qualitative and quantitative methods. Eisenhardt (1989) supports the combination of qualitative and quantitative data as qualitative data are useful for understanding the rationale or theory revealed in the quantitative data or may suggest directly a theory that can be strengthened by quantitative support. Yin (1984), Wacker (1998) and Jick (1979) are of the view that the use of multiple research methods provides for triangulation of results. Jick (1979) maintains that triangulation can also capture a more complete, holistic, and contextual portrayal of the units of study and enrich our understanding by allowing for new or deeper dimensions to emerge. He adds that the effectiveness of triangulation rests on the premise that the weaknesses in each single method will be compensated by the counterbalancing strengths of another (as long as the multiple and independent measures do not share the same weaknesses or potential for bias). Jauch et al. (1980) say that reliance on one method “… can substantially limit the development of a field and yield considerable ambiguity in the interpretation of results”.

3.3 Unit of Analysis

McClintok, Brannon and Maynard-Moody (1979) define a unit of analysis as “… a theoretical guidance and phenomenological integrity for those informants who are providing observation”. As such, the unit of analysis is fundamental in understanding the subject of the study. They add that it is very important to arrive at a definition of units of analysis that is stable enough to sample and that lends itself to the possible application of standardised codes. This research identifies the organisation as the unit of analysis, as this unit meets McClintok, Brannon and Maynard-Moody’s (1979) criteria and logically binds the phenomena that produce the association between crisis preparedness and effective crisis management.
3.4 Qualitative Method

Four case studies were conducted with organisations which had experienced a high-profile crisis event in the last ten years as Eisenhardt (1989) recommends a minimum of four case studies to generate theory with more complexity. She adds that multiple observations would help to create and highlight critical constructs. This study selected organisations that reflected the statistical type and size distribution of those which experienced a crisis event in the last ten years. The qualitative methods involved a template analysis approach in which a codebook (derived from theory, research, and practice) was developed *a priori* and is consistent with the overall approach taken for the quantitative research. Qualitative data was subjected to content and comparative analysis for pattern and meaning. The narrative form with a multiple cross-sectional analysis method was used to analyse the cases. An analysis protocol was developed *ad hoc* taking into consideration the crisis preparedness dimensions drawn from the literature: strategic preparedness, relationship history and crisis history.

3.5 Quantitative Method

3.5.1 Data and Sample Collection

The quantitative study involved the design, pilot testing and administration of a questionnaire instrument to collect quantitative data from Australian and New Zealand senior executives and consultants involved in handling major crisis events in the last 10 years. The research identified, in a preliminary fashion, that 140 high-profile crisis events occurred in Australia and New Zealand in this period (see Appendix 2.2). It targeted the organisation’s staff as follows:

- Chairperson
- CEO
- CFO
- Public Relations Manager
- External Consultant
- Crisis Management Leader or equivalent.
The questionnaire was developed using the software program Perseus, Version 5.5.050. This software package allowed us to produce electronic versions of the questionnaire that we sent to the respondents via the internet. The software also helped us to produce relevant descriptive statistics automatically and to codify the responses electronically.

As such, 2,500 electronic and 500 hard-copy questionnaires were distributed, expecting an electronic return rate of 2 per cent (50 questionnaires) and 15 per cent for the hard-copy questionnaires (75 questionnaires). However, the return rate was lower than expected.

**Table 3.B: Questionnaires Return Rate**

<table>
<thead>
<tr>
<th>Type of Questionnaires</th>
<th>Number of Questionnaires sent</th>
<th>Number of questionnaires received</th>
<th>Per cent of return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic</td>
<td>2500</td>
<td>40</td>
<td>1.6</td>
</tr>
<tr>
<td>Hard copy</td>
<td>500</td>
<td>40</td>
<td>8.0</td>
</tr>
<tr>
<td>Total</td>
<td>3000</td>
<td>80</td>
<td>2.66</td>
</tr>
</tbody>
</table>

We received in total 80 questionnaires but 5 were incomplete or lacked key information and were not incorporated into the database. Out of the 75 valid questionnaires, 25 were filled in by organisations that had not experienced a high-profile crisis yet. These organisations were also excluded from our statistical analysis. The remaining 50 questionnaires were the primary source of information for our descriptive and multi-regression analysis (in order to accept or reject our null hypotheses $H_0$).

The data was analysed using the statistics computed by the statistical program for social science (SPSS) Version 12. The following techniques were applied: descriptive techniques, multivariate regression analysis, and Pearson’s correlation analysis (aimed primarily at measuring the strength of the relationship) and so on.
3.5.2 Pre-testing and Interview

Information obtained from the multiple case studies informed the questionnaire design process and the quantitative analysis. The pre-test aimed to identify the potential for subjective interpretation and/or misinterpretation of concepts and measures. The questionnaire was pilot tested being sent to 10 practitioners and executives from organisations which experienced a crisis event outside the sample selected for the multiple case studies. The questionnaire instrument was finalised and pre-tested with 15 academic, peers and administrative staff.

3.5.3 HPC Questionnaire

The main objective of the questionnaire (also referred as “survey” in our study) was to collect information on the independent and dependent variables to test the hypotheses (H1 to H3) of our model (factor and regression analyses purposes). It had also four other secondary objectives:

- To collect descriptive information on the organisations surveyed
- To collect descriptive information on the organisation crisis preparedness, response and outcomes
- To collect information on independent and dependent variables for future research purposes
- To collect information to build a respondent’s profile.

The high-profile crisis questionnaire was designed using the software program Perseus Survey/solutions Version 5.2.050. The questionnaire was structured in 8 sections (from A to H) comprising 69 questions (63 closed and 6 open-ended questions). A full version of the questionnaire is attached in the Appendix.

We used a Likert scale from five to eight categories. As Pallant (2005) says, this type of scale “… gives a wider range of possible scores and increases the statistical analyses that are available”. We used the categories offered by the Perseus software with minor modifications. Whenever possible we use scales defined by the Australian Bureau of Statistics. The questionnaire was distributed with clear instructions on how to fill it in and a set of key definitions to ensure, as much as possible, consistency in the
interpretation of core concepts. We tested the questionnaire five times with post-graduate students, academic staff, practitioners and other professionals. We made adjustments to the questionnaire based on the feedback received from our pilot testing respondents and by applying Oppenheim (1992) suggestions when formulating the questions by avoiding:

- Long complex questions
- Double negatives
- Double-barrelled questions
- Jargon or abbreviations
- Words with double meanings
- Culture-specific terms.

We considered it appropriate to use the response categories “do not know” (“not sure”) and “not applicable” in a few instances (e.g. when asking about shareholders’ relationships to organisations that may not have shareholders – see Q31 and Q40). The Perseus software performed the processes of assigning codes to questions and responses automatically. We defined categorical scales to collect statistical information on the organisation and the interviewees (respondents). Hair et al. (2006) affirm “…categorical scales can only provide the number of occurrences in each class or category of the variable being studied” (see Q1 or Q60 as an illustration of this type of measurement). We used ordinal scales to measure the subject of our study and compare them with other terms in relation to the amount of attribute they possessed (Hair et al.). Q35 is an example of this type of measurement. We also used interval and ratio scales to collect descriptive information on the organisation and the crisis (see Q40). The interval and ration scales provide the highest level of measurement precision (Hair et al.). The interval scale uses a relative zero point and the ratio scales use an absolute zero point.

3.5.3.1 Questionnaire Structure

The questionnaire was divided into eight sections as follows:
Table 3.C: Questionnaires Structure

<table>
<thead>
<tr>
<th>Section</th>
<th>Name</th>
<th>Questions Range</th>
<th>Approx. time needed to answer the questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Organisational profile</td>
<td>Q1 to Q5</td>
<td>2 minutes</td>
</tr>
<tr>
<td>B</td>
<td>High-profile crisis event</td>
<td>Q6 to Q41</td>
<td>15 minutes</td>
</tr>
<tr>
<td>C</td>
<td>Crisis history</td>
<td>Q42 to Q51</td>
<td>7 minutes</td>
</tr>
<tr>
<td>D</td>
<td>Strategic preparedness</td>
<td>Q52 to Q55</td>
<td>2 minutes</td>
</tr>
<tr>
<td>E</td>
<td>Relationship history</td>
<td>Q56 to Q59</td>
<td>2 minutes</td>
</tr>
<tr>
<td>F</td>
<td>Interviewee profile</td>
<td>Q60 to Q68</td>
<td>2 minutes</td>
</tr>
<tr>
<td>G</td>
<td>Your opinion and comments</td>
<td>Q69</td>
<td>N/A</td>
</tr>
<tr>
<td>H</td>
<td>Contact information</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

A  Organisational profile

This section had the objective of capturing general information about the organisation’s general attributes (size, annual revenues, type of industry etc.). It comprises five categorical questions (from Q1 to Q5). The Q1 “size of the organisation in full-time equivalent staff (FTE)” was used as our study’s moderator variable.

B  High-profile crisis event

This section aimed at capturing information relevant to the most recent high-profile event experienced by the organisation within the last ten years (having as a date point of reference the day participants completed the questionnaire). It comprises a total of 36 questions (categorical and nominal). Six questions captured information on the independent variables and three on the dependent variables related to our pre-factor analysis HPCM model for factor analyses and regression analyses purposes.

Table 3.D: Questions by Dimension

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measured by question number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic preparedness</td>
<td>Q16,Q17,Q19,Q20</td>
</tr>
<tr>
<td>Stakeholder relationship</td>
<td>Q22</td>
</tr>
<tr>
<td>Crisis history</td>
<td>Q48</td>
</tr>
<tr>
<td>Crisis outcomes</td>
<td>Q36,Q38,Q39</td>
</tr>
</tbody>
</table>
The aim of Q16 and Q17 was to get information on the extent the respondents believed the processes and/or documents were useful to minimise the overall negative impact of the crisis outcomes. We decided it was appropriate to include a “not applicable” category to capture information on those organisations that may not have crisis processes or documents in place. The Likert scale (five items) had a response range from “extremely useful” to “useless” to minimise the overall negative impacts of the crisis outcomes.

The objective of Q19 and Q20 was to get information on the extent key staff members of the organisation undertook crisis management and specific training prior to the high-profile crisis. We believed it was appropriate to include a category for “not sure” as the respondent may not be aware of relevant training undertaken by other staff within the organisation. The Likert scale (five items) had a response range from “yes, in depth” to “no” training at all.

Q20 aimed at rating the quality of the relationship the organisation had with their respective stakeholders. The Likert scale (seven items) had a response range from “excellent” to “non-existent” relationship. We considered it appropriate to include a “not applicable” option as many organisations may not have a particular stakeholder at all i.e. shareholders or industry associations. The list of stakeholders was gathered from the literature. We developed an internal classification of stakeholders for analytical purposes only: inner-core, external industry, media, government and community.

**Table 3.E: Stakeholders Relationship Independent Variables**

<table>
<thead>
<tr>
<th>Stakeholder group Q22</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner Core</td>
<td>Shareholders</td>
</tr>
<tr>
<td></td>
<td>Members of the Board/Council</td>
</tr>
<tr>
<td></td>
<td>Suppliers</td>
</tr>
<tr>
<td></td>
<td>Customers</td>
</tr>
<tr>
<td></td>
<td>Staff members</td>
</tr>
<tr>
<td></td>
<td>Union</td>
</tr>
<tr>
<td>Ext. Industry</td>
<td>Competitors</td>
</tr>
<tr>
<td></td>
<td>Industry Association</td>
</tr>
<tr>
<td></td>
<td>Industry peers (excl. competitors)</td>
</tr>
<tr>
<td>Media</td>
<td>Local Media and State Media</td>
</tr>
<tr>
<td></td>
<td>National Media</td>
</tr>
<tr>
<td></td>
<td>International Media</td>
</tr>
</tbody>
</table>
Q36 and Q38 captured information on the ratings given by the respondents of the overall crisis outcomes. They cover tangible financial outcomes and non-tangible outcomes (reputation and staff morale). The Likert scale (six items) had a response range from “excellent” to “very bad”. We considered it appropriate to include a “not applicable” option as many organisations may not have a particular outcome at all i.e. share price. The rating was given based on the perception the respondents had in relation to the crisis outcomes. This was cross-referenced with the responses in Q39 as the same question was asked in relation to the impact of the crisis on the same outcomes but taking a historical point of reference from a response range of “it reached historically low levels” to “it reached historically high levels”.

Q39 collected information on the extent the high-profile crisis determined tangible non-financial outcomes. We classified these outcomes based on their impact on the organisation in relation to: impact on governance, policy/organisational/regulatory intervention and enquiries/litigation.

**Table 3.F: Tangible Outcomes (Dependent Variables)**

<table>
<thead>
<tr>
<th>Crisis outcome group</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q38 Impact on Governance</td>
<td>Resignation of board members</td>
</tr>
<tr>
<td></td>
<td>Resignation of the CEO</td>
</tr>
<tr>
<td></td>
<td>Resignation of senior managers</td>
</tr>
<tr>
<td></td>
<td>Criminal charges to staff members</td>
</tr>
<tr>
<td>Policy/Organisational</td>
<td>Substantial organisational changes</td>
</tr>
<tr>
<td></td>
<td>Substantial policy changes</td>
</tr>
<tr>
<td>Regulatory Intervention</td>
<td>Suspension of share trading</td>
</tr>
<tr>
<td></td>
<td>The appointment of independent administrators</td>
</tr>
</tbody>
</table>
Enquiries/Litigation
A regulator’s enquiry (ASIC, TGA, ACCC etc)
A Federal or State enquiry
A prolonged civil litigation process

The non-tangible outcomes were identified by scanning high-profile crises in the Australian and New Zealand media using the database Lexis-Nexis Academic.

C Crisis history
This section aimed at capturing information about the level of crisis awareness of the organisations based on their crisis history. The section has 10 questions. Q48 “incorporation of post-mortem recommendations” was identified as a key independent variable by our factor and regression analyses. The question gathered information on how frequently were the lessons and recommendations of the previous crisis post-mortem analysis taken into consideration when managing the most recent crisis. The Likert scale (five items) had a response range from “always” to “never”.

D and E Strategic preparedness and relationship history
The aim was to collect information on the organisations about their level of strategic preparedness in those cases were they had not experienced a high-profile crisis event (12 questions). This information will be used in further research.

F Interviewee profile
The objective was to collect information to build a profile of the respondents.

G and H Opinion, feedback and contact details of the respondents
The aim was to offer feedback and contact options to respondents. An individual copy of the main results was sent to those respondents who completed this section.

3.6 Qualitative Approach
According to Bacharach (1989), propositions state that the relationships among constructs and on the more concrete level, hypotheses are derived from the propositions.
Hypotheses specify the relations among variables. The following propositions derived from the literature review, were examined using qualitative methods (multiple case studies). We formulated the propositions as questions to be answered by the examination of our case studies. The qualitative proposition/questions were aligned with the main research question and the quantitative hypotheses.

QA What type of strategic preparedness did the organisation have in place previous to the high-profile crisis (strategic preparedness dimension)?

QB What was the status of the relationships between the organisation and its main stakeholders before and after the high-profile crisis (stakeholders’ history dimension)?

QC What lessons did the organisation take into account from previous high-profile events within their own organisation, the industry or within the general field of crisis management (crisis history dimension)?

QD What were the types and impact of crisis outcomes (tangible and intangible) produced by this event, from the point of view of the interviewees and the media?

This model (see Figure 3.1) identifies the existence of a number of multi-dimensional relationships derived from these questions: such as that between the organisation’s levels of crisis preparedness, the process followed by it to influence the crisis outcomes and the actual outcomes of the crisis event.

Bacharach (1989) defines hypotheses as the more concrete and operational statements of the broad relationships which are built from specific variables. The following research hypotheses, which were tested using quantitative methods, aim at measuring the association and the strength of these relationships to individual tangible and non-tangible crisis outcomes, having as a frame of reference our high-profile crisis management model (HPCM).
Figure 3.1: HPCM Model

High-Profile Crisis Model (HPCM)

Crisis Preparedness Dimensions

- strategic preparedness
- relationship history
- crisis history

Effective Crisis Management

Hypotheses H1, H2, H3

Moderator
- Size of the organisation

Performance history

The unit of analysis is the organisation
3.7 Main Hypotheses (MH)

The High Profile Crisis Management model is a valid instrument for measuring and predicting the relationship between strategic crisis preparedness, stakeholder relationships/crisis history and crisis outcomes.

Our main hypothesis was tested by accepting/rejecting the null hypothesis ($H_0$) and by computing and analysing the predictive ability of the working hypotheses.

3.7.1 Working Hypotheses

3.7.1.1 Testing the Alternative Hypothesis H1

Table 3.G: Alternative Hypotheses H1

<table>
<thead>
<tr>
<th>Hypothesis No.</th>
<th>Hypothesis’ Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1.1</td>
<td>Q36 Direct crisis cost</td>
</tr>
<tr>
<td>H1.2</td>
<td>Q36 Revenue</td>
</tr>
<tr>
<td>H1.3</td>
<td>Q36 Profits</td>
</tr>
<tr>
<td>H1.4</td>
<td>Q39 Direct crisis cost</td>
</tr>
<tr>
<td>H1.5</td>
<td>Q39 Revenue</td>
</tr>
<tr>
<td>H1.6</td>
<td>Q39 Profits</td>
</tr>
</tbody>
</table>

The HPCM model (strategic preparedness, stakeholder relationships/crisis history dimensions) is a significant predictor of tangible financial outcomes (direct crisis costs, revenue, profits).

The overall rating of crisis financial outcomes refers to the assessment made from Q36 and Q39 of the HPCM questionnaire and comprises the following item dependent variables: direct crisis costs, revenue, profits and the 14 identified independent variables.
3.7.1.2 Testing the Alternative Hypothesis H2

The HPCM model is a significant predictor of tangible non-financial outcomes

*Table 3.H: Alternative Hypotheses H2*

<table>
<thead>
<tr>
<th>Hypothesis No.</th>
<th>Hypothesis Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2.1</td>
<td>Resignation of board members</td>
</tr>
<tr>
<td>H2.2</td>
<td>Resignation of the CEO</td>
</tr>
<tr>
<td>H2.3</td>
<td>Resignation of senior managers</td>
</tr>
<tr>
<td>H2.4</td>
<td>Criminal charges to staff</td>
</tr>
<tr>
<td>H2.5</td>
<td>Appointment of independent administrators</td>
</tr>
<tr>
<td>H2.6</td>
<td>Substantial organisational changes</td>
</tr>
<tr>
<td>H2.7</td>
<td>Substantial policy changes</td>
</tr>
<tr>
<td>H2.8</td>
<td>A regulator’s enquiry</td>
</tr>
<tr>
<td>H2.9</td>
<td>A Federal or State enquiry</td>
</tr>
<tr>
<td>H2.10</td>
<td>A prolonged civil litigation process</td>
</tr>
</tbody>
</table>

The non-financial outcomes refer to Q38 of the HPCM questionnaire which asked the respondents to indicate whether the high-profile crisis was the *main determinant* for either the resignation of staff or changes in policy and/or the organisation and/or the establishment on enquiries. At the other end, if the answer for Q38 fell within the category “not being determinant at all” it was interpreted by this research as either having an outcome but this was not related at all to the crisis or that the specific outcome did not take place at all.

3.7.1.3 Testing the Alternative Hypothesis H3

The HPCM model is a significant predictor of non-tangible outcomes (reputation and staff morale). The non-tangible outcomes refer to Q36 and Q39 of the HPCM questionnaire and comprise the following item variables: reputation and staff morale. The alternative hypothesis H.3 tested the items Q36 Reputation and Q36 Staff Morale.
### Table 3.1: Alternative Hypotheses H3

<table>
<thead>
<tr>
<th>Hypothesis No.</th>
<th>Hypothesis Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3.1</td>
<td>Q36 Reputation (overall rating)</td>
</tr>
<tr>
<td>H3.2</td>
<td>Q36 Staff morale (overall rating)</td>
</tr>
<tr>
<td>H3.3</td>
<td>Q39 Reputation (impact)</td>
</tr>
<tr>
<td>H3.4</td>
<td>Q39 Staff morale (impact)</td>
</tr>
</tbody>
</table>
Chapter 4

Qualitative Data Analysis

The qualitative analysis aimed to provide longitudinal answers to our research questions. Its results feed into the quantitative analysis through the identification of emergent themes, key independent and dependent variables and by explaining quantitative findings.

The qualitative analysis was based on a variety of crisis-related sources (literature, federal and state inquiries, court documents and media coverage) and interviews with key crisis management team members.

4.1 Research Question

The following is the main research question that guided our analysis (derived from the literature review):

Do the dimensions of strategic crisis preparedness, stakeholder relationship history and crisis history contribute significantly to the minimisation of negative outcomes of a crisis event?

Our qualitative analysis addressed this question by examining the independent and dependent dimensions separately. We analysed the case studies by responding to these more specific questions:

QA What type of strategic preparedness did the organisation have in place previous to the high-profile crisis (strategic preparedness dimension)?

QB What was the status of the relationships between the organisation and their main stakeholders before and after the high-profile crisis (stakeholders’ history dimension)?

QC What lessons did the organisation learn from previous high-profile events within their own organisation, the industry or within the general field of crisis management (crisis history dimension)?
What were the *types* and *impact of crisis outcomes* (tangible and intangible) produced by this event, from the point of view of the interviewees and the media?

### 4.2 Case Studies

#### 4.2.1 Purpose

The purpose of this chapter was to analyse and compare four organisational high-profile crises, using as a point of reference the relevant independent and dependent constructs and dimensions identified in the field’s literature bounded by the research questions. Qualitative data collected was subjected to content and comparative analysis for pattern and meaning, and organised in relation to the main and subsidiary questions of our research.

#### 4.2.2 Media Content Analysis

We also conducted a content analysis using newspaper headlines as a source (local, state, national and international) to determine the type of coverage received by the organisation during the critical crisis periods and, whenever possible, to link it with the crisis preparation strategies put in place within the organisation before the crisis. We scanned and analysed more than 5000 news print items. We compared the answers provided by our interviewees in relation to their media coverage perception against our media content analysis results. The following methodology was used to identify the relevant articles in the print media:

- We used the LexisNexis Academic database.
- As a news category we chose *World News*.
- As a source we chose *Asian/Pacific news sources*.
- As a keyword to identify the articles in the database, we used the name of the organisation in the news headline or the text of the article covering their respective crisis periods.
- We subsequently eliminated the articles which were not relevant to the crisis.
• We eliminated articles produced by press agencies as these do not generally provide direct information to the public (we made an exception in the case of Seafood Industry as we could not find other media sources of information).

• The remaining articles were classified using a Lickert scale measuring the portrayal of the organisation role in crisis from negative to positive. It was classified as “negative” when either the article clearly placed responsibility on the organisation for a particular crisis outcome or blamed the organisation for the lack of action to resolve the crisis and/or accused the organisation of using unethical or illegal means to manage the crisis. It was classified as “factual” when the headlines did not qualify the action or provide just succinct information of an event. It was classified as “positive” when the headline supported an action taken by the organisation or a position taken from an external source defending the organisation position or attacking the stakeholders who were blaming the organisation in crisis. For instance, in relation to the Pan Pharmaceutical crisis, the following headlines were classified as “negative”:


  “Staff bullied to cut costs”, *The Australian*, 30/4/03. *The Australian* qualified Pan’s actions as harmful to its own employees.


The following headlines were classified as “factual”:

  “Travel drug warning”, *The Advertiser*, 23/01/03

  “Travel tablets recalled”, *The Daily Telegraph*, 22/01/03

  “Tablets recalled”, *Herald Sun*, 22/01/03

The following headlines were classified as “positive”:

  “PM defends recall as drug boss claims witch-hunt”, *The Australian Financial Review*, 30/04/03
“Timing and handling of ban attacked”, *The Australian Financial Review*, 30/04/03

“Minister ‘overreacted’”, *The Daily Telegraph*, 30/4/03

When in doubt, we classified the headline as “factual”. We generally have less than one per cent of articles in this category.

We explored the relationship between the type of media coverage and the crisis outcomes for qualitative purposes only. We left aside the quantitative analysis of this relationship for future research projects. A synthesis and a table with the identified emerging themes of each case appear at the end of the individual studies.

At the end of the chapter we conducted a multiple cross-case analysis aligned with the overall design of the quantitative survey and with our qualitative study objectives. This analysis aimed at conceptualising and evaluating the crisis preparedness of these four organisations in relation to their crisis outcomes, to identify or validate key independent and dependent variables for our quantitative study and to collect longitudinal information to interpret our quantitative findings.

4.2.3 Selection of the Case Studies

We selected the four organisations based on their likelihood to experience a high-profile crisis (crisis prone versus non-prone), according to the information drawn from the Institute for Crisis Management (WEB: ICM) annual reports from 1998 to 2004. Three out of the four organisations analysed are based in Australian and one is located in New Zealand.

*Table 4.A: Organisations Selected for the Qualitative Case Analysis*

<table>
<thead>
<tr>
<th>No</th>
<th>Type of Industry</th>
<th>Crisis-Prone Industry</th>
<th>Organisation</th>
<th>Type of Crisis</th>
<th>Approx. Direct Cost (Aus Million)</th>
<th>Selection Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pharmaceutical</td>
<td>Yes</td>
<td>Pan Pharmaceutical</td>
<td>Product recall</td>
<td>500+</td>
<td>Pan was liquidated. It is a clear example of a worst crisis scenario</td>
</tr>
<tr>
<td>2</td>
<td>Oil Industry</td>
<td>Yes</td>
<td>Esso Australia</td>
<td>Accident</td>
<td>300+</td>
<td>Esso had one of the major high-profile crises in the history</td>
</tr>
</tbody>
</table>
### 4.2.4 Profile of the High-Profile Crisis Events

The following profiling information was collected by organisation:

1. Size of the organisation
2. Type of industry
3. Type of crisis
4. Industry crisis status (prone vs. non-prone)
5. Type and duration of the crisis situation
6. Direct tangible costs of the crisis
7. Impact on the organisation’s reputation
8. Indirect costs of the crisis
9. Crisis outcomes
10. Magnitude, intensity and frequency of media coverage
11. Identification of key independent and dependent variables
12. Type of response strategies utilised

The information was collected using a number of sources:

**Table 4.B: Sources of Information for the Qualitative Case Analysis**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interviews with key crisis players</td>
</tr>
<tr>
<td>2</td>
<td>Annual reports and media releases</td>
</tr>
<tr>
<td>3</td>
<td>Regulatory bodies reviews (media releases, evaluations, audits)</td>
</tr>
<tr>
<td>4</td>
<td>Media coverage</td>
</tr>
<tr>
<td>5</td>
<td>Industry analysis or evaluation on the crisis (including communication and media analysis)</td>
</tr>
<tr>
<td>6</td>
<td>Court papers</td>
</tr>
</tbody>
</table>
In short, the case studies were analysed using primary (interviews) and secondary sources of information: court documents (Royal Commission or court cases), and literature review (media reports). The interviews were given by key executive members, who were either:

- A crisis team member
- A member of the board of management
- The CEO.

The interviewees are identified as *key crisis members* (KCM). We numbered the KCM from 1 to 4 depending on the crisis being evaluated. Some minor changes were made to the KCM’s transcripts in order to conceal their identity.
4.3  Pan Pharmaceuticals (Pan) Case Study

“They claimed (the TGA) that they informed the chief executive (about the quality production problems detected) but unfortunately the chief executive apparently ... didn’t do anything: KCM1, 2005

4.3.1  Abstract

Pan Pharmaceutical experienced a high-profile crisis in January 2003 when the TGA pharmaceutical regulator issued a warning on Travacalm, one of Pan’s products. In less than four months Pan went into bankruptcy, having to call in voluntary administrators.

The Complementary Healthcare Council (WEB: CHC) represents the interests of the industry. Pan was an active member of this industry.

The complementary medicines industry has evolved under close scrutiny by the international and the political system in Australia. The traditional pharmaceutical industry sees the complementary industry as a competitor. As such, the complementary medicines industry believes that the industry is under constant attack from both the transnational pharmaceutical companies and doctors backing traditional medicines (WEB: HHT). The complementary medicines industry perceives regulators like the TGA as the instruments of transnational companies, being used by their traditional competitors to achieve their market dominance objectives.

The Australia political system had also been debating the future of this alternative industry long before Pan’s crisis. Political parties in Australia paid close attention to the issue. For instance, an important policy initiative of the Australian Democrats Party has been the introduction of complementary medicines in the Pharmaceutical Benefits Schemes – PBS (Medicare); giving it the same status as over-the-counter prescribed medicines. The Democrats have been demanding a number of legislative changes to promote this industry, among them “… to remove the Goods and Services Tax (GST) of 10 per cent from complementary health products and therapies and to provide health therapists with access to Medicare rebates for pathology and more
funding” (IS: TGA, 1989). The Pan crisis greatly affected the Australian Democrats Agenda on this topic.

Pan Pharmaceuticals Limited was a locally owned public company that was ranked number 1,433 out of the top 2,000 companies in Australia. The company generated the majority of its income from medicinal and pharmaceutical product manufacturing in Australia. For the previous 12 months to June 2002 the company generated a total revenue of $A103 million including sales and other revenue. It had assets estimated at $A550 million. In 2002 Pan Pharmaceuticals had 218 equivalent full-time employees (EFT) in Australia including employees from all subsidiaries under the company's control. It exported to several countries in the Asia Pacific region. It had a formulation library of over 4,500 products. It produced over 1,700 medicine products. Its main competitors were: Alphapharm Pty Ltd; AstraZeneca Pty Limited; Australian Pharmaceutical Industries Limited; CSL Limited; F H Faulding & Co Limited; Glaxo Wellcome Australia Ltd; Merck Sharp & Dohme (Australia) Pty Limited; Blackmore Ltd (WEB: IBIS World).

4.3.2 The Crisis Genesis

The public crisis was triggered by a warning made by the Therapeutic Goods Administration (TGA) on 21 January 2003, followed by a press released on the 22 January 2003 advising the public not to take some batches of the anti-travel sickness preparation, Travacalm (MR: TGA, 22/1/2003). This warning was the first publicly known information about Pan’s crisis.

The TGA acted under the objectives and directives of the Therapeutic Goods Act 1989, which came into effect on 15 February 1991, whose main aim is to “…provide a national framework for the regulation of therapeutic goods in Australia and ensure their quality, safety and efficacy” (WEB: TGA).

The TGA’s warning forced Pan Pharmaceuticals to make a product recall on three product batches of Travacalm. This drug was only one out of over 1,700 products produced by Pan Pharmaceuticals at the time of the crisis. The TGA extended its auditing activities based on the perceived lack of action by Pan Pharmaceuticals and
concerned by the breaches of production quality identified in Travacalm and its possible health effects on the Australian public. The TGA convened an Expert Advisory Group to evaluate the results of the audits carried out from January to April 2003. The Expert Advisory Group met on 23 April 2003 and concluded that: “... it lacked confidence in any product manufactured by the company” \textit{(RCMHS, 2003)}. This decision sealed the fate of Pan Pharmaceuticals as a viable organisation. On 28 April 2003, with immediate effect, the TGA issued another press release where it stated that, “… The TGA has suspended the license held by Pan Pharmaceuticals Limited of Sydney to manufacture medicines after TGA inspectors found a series of serious safety and quality breaches by the company” \textit{(MR: TGA, 28/4/2003)}. These included substitution of ingredients, manipulation of test results and substandard manufacturing processes. In addition the regulator ordered an urgent recall of 219 products which Pan Pharmaceuticals manufactures and supplies in Australia, with a potential for a larger recall. The license suspension was for a minimum period of six months.

On 1 May 2003, Jim Selim, the founder and majority shareholder (52 per cent) of the beleaguered pharmaceutical manufacturing company, Pan Pharmaceuticals, resigned from his position as Chief Executive Officer. Jim Selim set up the company in 1974 and had seen it grow into one of the world's largest complementary medicine manufacturers. The board appointed Colin Henson as the acting CEO of the company. Colin joined the board of Pan when the company was first floated. He had a background in managing organisations in financial problems. For instance, he worked for Burns Philip and AWA, companies which had experienced high-profile crises of their own \textit{(MS: ABC PM 1/5/2003)}.

By 5 May 2003 \textit{(MR: TGA, 5/5/2003)}, the TGA had ordered Pan Pharmaceuticals to withdraw a total of 1,546 products. By the end of May 1,624 of Pan’s products were recalled \textit{(MS: News.com, 19/4/2004)} representing over 95 per cent of Pan Pharmaceuticals’ total product medicines output.

Pan ran out of options by the end of May. On 22 May 2003 and the company went into voluntary administration. Administrators were appointed under s 436A of the \textit{Corporations Act 2001}, to manage the business affairs of Pan Pharmaceuticals \textit{(IS: CLJ, 2003)}. This date marked the end of Pan’s crisis as it ceased to exist as a legal business entity.
On 24 August 2003, in another press release, the TGA indicated that:

… The Australian public should not forget how bad the manufacturing practices were at Pan Pharmaceuticals which prompted what may be the world's biggest medicines recall (researcher’s highlighting). The Therapeutic Goods Administration (TGA), in responding to a forthcoming television program about Pan Pharmaceutical’s boss, Jim Selim, reminded Australians that audits of Pan found substitution of ingredients, manipulation of test results and substandard manufacturing processes. (MS: TGA, 24/8/2003)

4.3.3 Pan Pharmaceuticals (Pan) Crisis Evaluation

The interviewee is referred to as key crisis member 1 (KCM1).

4.3.3.1 Strategic Preparedness

QA What type of strategic preparedness did the organisation have in place previous to the high-profile crisis (strategic preparedness dimension)?

According to the American Institute for Crisis Management (WEB: ICM) Report 2005, 6 per cent of the crises were caused by product defects and recalls (IS: ICM, 2005). Within this category, pharmaceutical and food retail organisations are considered more prone to experience a crisis than other industries. In fact according to the ICM Reports 2004 and 2005, pharmaceutical companies occupied the first spot out of the ten more crisis-prone industries in both years. They did not appear in this infamous list in 2003 but occupied second place in 2002 and fifth in 2001. McGuire (1974), quoting Alexandre Towbridge, claims that “… product recall is a situation that nearly every manufacturer will probably face at some time or another”. Gibson (1995) says in relation to the automobile industry, that in 1977 more car units were recalled than were sold. Gibson argues that the quantitative and qualitative effect of recalls is growing significantly, citing cases of recalls made by a number of American Agencies (Food and Drug Administration – WEB: FDA and the National Highway Traffic Safety Administration –WEB: NHTSA). Pan Pharmaceuticals, in this context, was highly exposed to the possibility of having a high probability and intensity crisis event
represented by a product recall. Either sound risk management or issues processes could have avoided a major crisis or at least better prepared the organisation to manage one— in particular the type of crisis that may result in a product recall.

There are a number of product recalls studies aimed at evaluating the reaction of the stock market to product recalls (Wang et al., 2002; Salin & Hoocker, 2001; Thomsen & McKenzie, 2001). Other studies try to measure the positive/negative effects of voluntary versus compulsory/mandated recalls (Rupp & Taylor, 2002; Haunschild & Rhee, 2004). The researchers found that voluntary recalls tended generally to have more positive than negative benefits to the organisation, from a learning perspective and the impact on the share price, than mandated recalls. Pan Pharmaceuticals had no plans or strategies to put in place a voluntary recall despite the literature’s evidence that recommended the benefits of this type of action. This may explain why 325 out of 738 articles printed by the local, state, national and international media to 22 May 2003, portrayed Pan Pharmaceuticals negatively. Sixty-eight negative articles dealt directly with issues pointing to the lack of preparation of the organisation to manage the crisis (see Table 4.C).

**Table 4.C: Media Content Analysis**

<table>
<thead>
<tr>
<th>Crisis Management</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blaming others</td>
<td>16</td>
</tr>
<tr>
<td>Lack of knowledge about the crisis cycle</td>
<td>4</td>
</tr>
<tr>
<td>Lack of preparation to deal w/suspension of share trading</td>
<td>4</td>
</tr>
<tr>
<td>Did not want to apologise</td>
<td>4</td>
</tr>
<tr>
<td>Product recall problems</td>
<td>30</td>
</tr>
<tr>
<td>It was not pro-active enough</td>
<td>2</td>
</tr>
<tr>
<td>Destruction of evidence</td>
<td>2</td>
</tr>
<tr>
<td>Blocking investigation</td>
<td>2</td>
</tr>
<tr>
<td>Denial (business as usual)</td>
<td>2</td>
</tr>
<tr>
<td>PR disaster</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
</tr>
</tbody>
</table>

The Pan crisis was covered by the media in three identifiable periods. The first were the breaking news stories published on 21 January 2003 through to the suspension of Pan’s license on 30 April 2003 (215 articles). The initial ten articles, between 21 January and 23 January 2003, we classified as 100 per cent “factual”. This high figure
was expected as there was not much information available to draw any conclusions in favour or against Pan Pharmaceuticals during this initial crisis period. The second period occurred between 24 January and 28 April 2003. There was no print media related to Pan’s crisis for a period of 11 weeks (seven articles were published but these were not related to the crisis). Pan did not confront a hostile media or attract massive media coverage during the second period of the crisis. The third period from 29 April to 22 May 2003 was very media intensive (523 local, state, national and international articles).

4.3.3.1.2 Processes and Documents

KCM1 confirmed that Pan had developed a number of strategic short-term and long-term planning processes and documents as expected from a private company which was listed on the Australian Stock Exchange. However, our research could not find any specific crisis management documents produced by Pan. In any case KCM1 was of the view that processes were more relevant to manage the crisis than specific documents. We did not uncover specific risk management policies or processes but if they did exist, according to the financial analyst and journalist, Robert Gottliebsen, “… these were never implemented” (*MS: The Australian*, 23/5/2003). As product recalls are the most common type of crisis within the automotive, food and pharmaceutical industries it was expected that Pan could have indeed prepared for a product recall contingency.

KCM1 said that Pan had a working crisis management plan but that this document was not very helpful during the crisis. This research was unable to obtain a copy of this working document. However, as far as KCM1 was aware, the board of Pan Pharmaceuticals did not have formal discussions regarding potential problems associated with its products at least 18 months before the crisis. Despite Pan being part of a crisis-prone industry, it had not planned for the possibility of a product recall. When the crisis erupted and a recall was necessary, Pan hired the consultant firm Deloitte’s to assist them to implement the recall process. This lack of attention to crisis strategic preparedness was particularly surprising given that its CEO and founder Jim Selim had a history of legal problems related to allegations of substandard production of
medicines in 1976, 1985 and 1996 (see more detail in 4.3.3.3). KCM1 indicated that some members of the board and the spokesperson of Pan were trained in depth in crisis management before the crisis. Most of the training referred to crisis media, message development and spokesperson coaching.

4.3.3.1.3 Spokesperson

KCM1 said that the board agreed to name a spokesperson other than the CEO Jim Selim. This role was taken by Colin Henson, member of the board, who became the acting CEO after April 2003. The strategy to choose another spokesperson for the CEO was consistent with the literature (Arpan, 2002) as Mr Selim had no public credibility after Pan’s previous widely reported legal problems. However, the print media did not often cover the point of view of the spokesperson. We identified only 5 out of 738 printed articles directly conveying the opinion of Mr Henson in the news headlines.

4.3.3.1.4 Messages

KCM1 said that the crisis team continued informing the public and the media about the progress of the crisis and the steps taken by Pan to resolve it. Pan consistently conveyed three core messages to the public and the media:

- denying any problems with their products that could harm the public health
- blaming a rogue analyst and a manager for Pan’s problems
- refusing to apologise for any problems as a result of the product recall and the crisis.

These core messages were received negatively by the stakeholders. On 30 April 2003, Colin Henderson, now executive director of Pan, declared to the media that they had done nothing wrong and referred to the accusations from the TGA as “alleged problems” (MS: The Age, 30/4/2003).
4.3.3.1.5 External Advice

KCM1 said that the organisation sought external advice from Deloitte’s (WEB: Deloitte) to implement the recall and to restructure their operations in order to satisfy the TGA requirements (the board appointed other industry experts to assist). Despite the assistance of Deloitte’s, the media coverage of the “product recall” was negative. Thirty out of one hundred and fifty articles (using the keyword “recall”) were critical of the actions taken by Pan to implement the product recall.

4.3.3.2 Stakeholder Relationships

QB What was the status of the relationship between the organisation and its main stakeholders before and after the high-profile crisis (stakeholders’ history dimension)?

4.3.3.2.1 Processes and Documents

According to KCM1, Pan did not have a specific stakeholder plan and the estimated expenditure to strengthen its relations with its major stakeholders was well below the half a million dollar mark. This absence of stakeholder relationship planning was against the practices recommended by the crisis literature (Gonzalez- Herrero & Pratt, 1996; Ulmer, 2001; Coombs & Holladay, 2001). The organisation did not have specific accounting procedures to track the expenditure on stakeholder relationships. KCM1 rated the quality of the relationship of the organisation with their shareholders as “excellent”. It rated its relationships with other stakeholders like the TGA and the ASX as “good” prior to the crisis.

4.3.3.2.2 Media

Our media content analysis from January to May 2003 (see Appendix I, Table II) gathered 738 local, state, national and international printed articles (excluding news agencies). The media analysis revealed a 44 per cent total negative coverage of the crisis. Out of the 47 articles with reference to the CEO Jim Selim, 77 per cent were negative; the industry had 147 articles of which 65 per cent were negative and the organisation had a total of 544 articles with 35 per cent negative coverage. The national newspapers (represented by The Australian and The Australian Financial Review) were
generally more critical of Pan than were the state or local media, with respective negative coverage percentages of 64, 45 and 43. The international media was the least hostile with a 29 per cent negative coverage. The national media had 22 per cent of articles classified by our research as “factual” and 13 per cent classified as positive in their portrayal of the organisation’s efforts to manage the crisis. The international media coverage of Pan Pharmaceutical had the highest percentage of “factual” articles (66 per cent) followed by both the state and local media (55 and 52 per cent respectively). The total national “factual” coverage was 51 per cent. When we added the articles covering the Industry and the CEO of Pan, the international media had again the highest percentage of “factual” articles (80 per cent), followed by the state and the local media with 45 per cent. The total national “factual” coverage was 41 per cent.

It was important to stress from the Australian media point of view, that the crisis was not just about Pan Pharmaceuticals but the whole alternative medicines industry, as out of the 276 Australian total media articles with a negative coverage of the crisis, 27 per cent were directed at the industry. In particular, of the national media, which had 33 articles referring to the alternative medicines industry, 79 per cent had negative connotations.

Pan contacted the media on an ad hoc basis. KCM1 said that Pan organised press conferences from time to time to inform the public about the TGA’s decision from Pan’s point of view. KCM1 did not have the perception of a “hostile media” but one of a “hostile regulator”. The media, however, did not convey the points of view of the executives of Pan Pharmaceuticals in their news headlines.

4.3.3.2.3 Internal Communication

KCM1 said that they tried to keep the staff fully informed “… by setting up regular meetings with all of the staff to keep them informed of what was happening and to allow them the opportunity to ask questions”.

KCM1 added:

… the most important aspect of keeping the staff informed was to ensure that you are telling the truth at all times. Truth is… I mean things may often change
but we kept them with a hope or a view that we could get the company back into manufacturing as soon as we had satisfied the requirements of the TGA.

The strategic role of internal communication during a crisis situation has been recognised by organisations like the World Bank (Moir & Egan, 2006) an organisation that had developed a detailed strategy to communicate with its employees in the case of a crisis. Evans et al. (2001) study the critical role employees played in crisis situations. This role is critical when the organisation wants to convey its message to the public using alternative ways to the media.

4.3.3.2.4 Regulators

4.3.3.2.4.1 Therapeutic Goods Administration (TGA)

KCM1 could not recall any specific activities to develop strong relationships and communication with, probably, its most important external stakeholder: the TGA. In fact in the year 2002–2003, the TGA investigated 460 alleged new breaches of the *Therapeutic Goods Act 1989* (IS: TGA, 1989). An alleged breach of the act results very rarely in a suspension of the production license and just a few out of these reached the media and became a high-profile crisis. From 19 media releases issued by the TGA between 1 January 2003 and 31 December 2003, only seven were not related to the Pan crisis. Out of the seven organisations named in these media releases, only the South Australian Red Cross Blood Service (ARCBS) had a forced intervention by the TGA. The regulator placed restrictive conditions on the manufacturing license held by the ARCBS because an audit found a number of breaches of the Good Manufacturing Practice License held by the Blood Bank (*MR: TGA, 12/9/2003*). This was a minor regulatory intervention in comparison to the license suspension of Pan Pharmaceuticals. From January to April 2003, the TGA carried out 11 audits on the production line and quality of a sample of products produced by the company. By mid April 2003, the TGA reached the conclusion that at least 219 of Pan’s products were not safe for public consumption. The TGA has the obligation to give notice of the cancellation or suspension of a license to manufacture medicines *unless* failure to act immediately would create an imminent risk of death, serious injury or serious illness (IS: TGA,
1989). The evidence of non-existent or bad relations with the TGA was stronger than the generous evaluation provided by KCM1. KCM1 indicated that:

… the initial difficulty that occurred in relation to that [Pan Pharmaceuticals license suspension] was the fact that it came completely without warning to the board of Directors. It occurred on the 28th of April, 2003… they had at that stage completed a three-month audit of the company. During the course of that three-month period they formed the view that what was happening at Pan could cause death or serious injury to the public as a result of the manufacturing practices in the complementary medicines area.

According to KCM1 the board of Directors received warnings neither from within the organisation (from Pan’s staff members who were dealing with the TGA’s three months’ audit) nor from the CEO, the General Manager nor the TGA itself. At the time, the TGA only had the legal obligation to inform the executive directors of the board about the progress of its audit. Due to the Pan Pharmaceuticals crisis, the law was changed to include the non-executive directors of any organisation in the information chain. But the TGA did not provide the board of directors with specific information behind its decision to suspend Pan’s license, leaving the board with few management options. KCM1 said:

… as the board had no idea of what it was that the TGA was complaining about we couldn’t go out and make a statement other than to say that we are looking at it. … if the TGA had acted earlier and advised the board of the lot of the concerns that they had we could well have been rectifying them earlier in their audit process. The [TGA] claimed that they informed the chief executive [Jim Selim] but unfortunately (highlighting by the researchers) the chief executive apparently… didn’t do anything (highlighting by the researchers).

The behaviour of Mr Selim was disconcerting to the members of the board and some key staff members but according to the crisis literature, this type of “denial reaction” is not uncommon. O'Rourke (2001) during the analysis he made on the Bridgestone/Firestone and Ford Motor Company crisis, found that despite more than 1,500 claims for property damage, injuries and even some deaths, resulting from
failures among the 6.5m tyres being recalled (Bradsher, 2000), both companies
continued in their denial of having a problem. However, Jim Selim, during an interview
given to ABC program *Australian Story*, rejected this chain of events and argued that he
only learned of the gravity of the situation from the TGA on Sunday 27 April 2003 (*MS: 
*ABC, 26/8/2003*). Mr Selim argued that a rogue analyst was the culprit of this
mismanagement as they falsified the results of statistical tests on the quality of the
products. This analyst was sacked. However, other information came to light in 2005,
putting in doubt this version of events. Pan Pharmaceuticals’ former IT manager Karl
Brooks said Mr Selim asked him *to get rid* of the data on 31 January 2003. Mr Brooks
made this declaration at a committal hearing in Sydney against Selim who was facing
charges that he intentionally destroyed evidence to conceal the results of the tests. The
charges were brought by the Therapeutic Goods Administration (*MS: The Age, 
18/7/2005*).

According to the Records Management Association of Australasia (*WEB: 
RMAA*) this was a clear breach of a Good Governance Standard which aims at “…
providing the mechanisms for an entity to establish and maintain an ethical culture
through a committed, self-regulatory approach” (*MR: RMAA, 18/7/2005*).

These contradictory versions of events between the TGA, members of Pan’s
board, Mr Selim and others are being tested in a number of court cases.

Relationships between businesses and regulators have not been explored by the
crisis management literature but Coen (2005), drawing on the UK and German
experience with regulators, argues that independent regulatory authorities are moving
from a confrontational relationship with business towards a more strategic working
relationship and that this change has been driven by exchanges of information and
reputation building. These strategic activities go beyond what the regulatory framework
demands. This is the sort of strategy that Pan could have implemented as part of its
crisis preparedness process to avoid its demise.

**4.3.3.2.4.2 ASIC and ASX**

The unusual trading of Pan’s shares between January and April 2003 and its lack
of action to call for a trading halt in its shares after the announcement of the TGA
license suspension, also attracted the attention of the Australian Securities and Investments Commission (WEB: ASIC), the commonwealth financial national regulator. ASIC reacted by issuing a press release announcing an enquiry into Pan’s trading before the trading halt (MR: ASIC, 29/4/2003).

The failure of Pan Pharmaceuticals to suspend its shares trading after the TGA license suspension, allowed some traders to dump their holdings. The ASX (WEB: ASX) officials were furious about the company's slow reaction (MS: The Age, 28/4/2003). By 8 May 2003 some irregular share trading was identified. Relatives of Pan Pharmaceuticals’ General Manager, John Brennan, sold their shares during the first week of March 2003 (MS: SMH, 8/5/2003). Insider trading is seen by scholars not just as an illegal activity but also as morally wrong, unethical and inefficient (Werhane, 1991; Shaw, 1990).

Pan Pharmaceuticals’ failure to act ethically and legally on its share trading alienated simultaneously four of its major stakeholders: ASIC, ASX, shareholders and the national media.

4.3.3.2.5 CHC and Other Stakeholders

Very few stakeholders came to the defense of Pan Pharmaceuticals and even less to the defense of its founder and CEO. The perception that KCM1 had of having “good” relationships with its major stakeholders was not evident during or after the crisis. Even the Complementary Healthcare Council (WEB: CHC) which gave Mr Selim the prestigious Lady Cilento Award in September 2002 (MS: SMH, 2/5/2003) did not come to his rescue convincingly. The industry proposed to set up an enquiry (MS: The Christchurch Press, 14/5/2003) and questioned the legality of the product recall (MS: The Dominion Post, 20/5/2003).

4.3.3.3 Crisis History

QC What lessons did the organisation learn from previous high-profile events within their own organisation, the industry or within the general field of crisis management (crisis history dimension)?
Pan Pharmaceuticals had experienced previous crises in 1976, 1985 and 1996 and Mr Selim had to directly manage the legal and financial consequences. Neil Mercer from the *Sydney Morning Herald* reported that:

… In 1976 Mr Selim appeared before the Pharmacy Board of NSW charged with professional misconduct. The charge – failing to include a substance in a manufactured item – related to his making of paracetamol tablets. Some batches contained no paracetamol. He had a run-in with the Therapeutic Goods Administration which led to Pan being fined a record $280,000 in 1996, although this was overturned on appeal. In a press release, the TGA then said Pan Laboratories, of Villawood, had been found guilty of an evening primrose oil scam… The company was found guilty on 13 counts of illegally supplying and exporting therapeutic goods… Pan maintained that the breaches were technical and argued the oil was a food and not a therapeutic good. Mr Selim also defended charges in the local court in 1985 of not properly storing and dispensing a particular medication (*MS: SMH, 30/4/2003*).

These close encounters with the law are clear evidence that Mr Selim was not unaware of potential organisational crises and of the importance of following the rules and regulations established by the law and monitored by the TGA. It is not surprising to find that 77 per cent out of the 47 printed articles referring to the CEO Jim Selim were negative. Only 5 per cent of articles portrayed Jim Selim positively.

There were also two members of the board of Pan, who had previous experience with high-profile crises. Colin Henderson who had managed crises at Burner Phillips and AWA, and Ken Baxter, a senior public servant who had been the Director General of the NSW Premier’s Department and the Department of Transport and Secretary of the Victorian Department of Premier and Cabinet. Despite this “board inside crisis knowledge” the organisation failed to take any identifiable steps to analyse and learn from these crises. We did not find any specific policies or guidelines that were either the product of or were associated with these crises. The major indictment came from KCM1 who said that Pan Pharmaceuticals did not carry out any formal analysis of
crises within the industry or similar industries for risk management or crisis-preparation purposes.

4.3.3.4 Crisis Outcomes

QD What were the types and impact of crisis outcomes (tangible and intangible) produced by this event, from the point of view of the interviewees and the media?

4.3.4.1 Tangible Outcomes

4.3.4.1.1 Financial

- KCM1 estimated the total cost of the crisis for Pan as $A430 million.
- The lack of insurance coverage for stock returned as part of the recall could cost the industry up to $22 million.
- Thirty per cent of wholesalers and manufacturers had been told their insurance would not cover the problem.
- The net profit of Australian Pharmaceutical Industries Ltd (API) plunged 32 per cent in 2002/03 after the company was caught up in the mass recall of Pan Pharmaceuticals Ltd’s products (MS: AAP: 10/7/2003).
- Shares in natural health and beauty products company Blackmores Ltd jumped more than 11 per cent as Blackmores said none of its products was manufactured by Pan Pharmaceuticals or was affected by the product recall (MS: SMH, 29/4/2003).
- Blackmores suffered commercially despite heavy advertising and public statements that it had no connection with Pan and none of its products had been recalled (MS: SMH, 7/5/2003).
- Shares in Mayne Group fell five cents to $2.90 Mayne expected a financial impact of approximately $15–20 million from the Pan Pharmaceuticals product recall (MS: SMH, 29/4/2003).
4.3.4.1.2 Non-financial

- Jim Selim, founder in 1974 of Pan Pharmaceuticals and owner of 52 per cent of the shares at the time of the crisis, resigned as CEO on 1 May 2003.

- Jim Selim is currently facing criminal charges by the TGA and ASIC, and has been sued for damages by Pan's liquidator, Tony McGrath of McGrath Nicol & Partners.

- Pan's major customers, Mayne Group, Australian Pharmaceutical Industries and Sigma, have sought legal advice about getting compensation for their losses and protecting themselves against any consumer claims (MS: *SMH*, 2/5/2003).

- Retail members faced a 20 per cent drop in business and shed 13 per cent of jobs (650 jobs) since the Pan scandal erupted in April 2003.

- Manufacturers and wholesalers cut around one in four staff. This is in line with the findings of Jarrell and Peltzman (1985) who argue that recall hurts competitors besides the recalling firm (in particular in the automotive and pharmaceutical industries).

- It was Australia's biggest pharmaceutical recall, with Pan’s 15 to 20 per cent of the $1 billion complementary medicines market pulled from sale (*MS: The Bulletin*, 7/5/2003).

- Put at risk the permanent inclusion of complementary medicines in the Pharmaceutical Medical Schemes – PBS (Medicare).

- Wholesalers have had to scramble for alternative suppliers, but the largest – such as Mayne – are expected to make more of their own.

- Urgent recall warnings about tainted pills are being ignored by consumers, with a survey showing that 79 per cent of people who regularly take health supplements continued to do so. More than 9 million Australian adults, or 61 per
cent of the population, are regular users of complementary medicines (IS: AC Nielsen Survey Pan Crisis, 2003).

4.3.4.2 Non-tangible Outcomes

4.3.4.2.1 Reputation

- The reputation of three well-known members of Pan’s board was damaged: Ross Brow, Colin Henson and Ken Baxter.

- The Pan Pharmaceuticals crisis undermined the reputation of the complementary medicines industry to the extent of forcing the Government to establish an enquiry on Complementary Medicines in the Australian Health System.

- Pan’s crisis caused enormous fallout for business and the reputation of the complementary medicines market as a whole. The loss of confidence by the community in the industry as a whole means that every participant in the sector will suffer (MS: PACIA, 2003).

- Damaged the reputation of the alternative therapies industry. New South Wales Premier Bob Carr called for proper scientific assessment of alternative therapies following the recall of hundreds of vitamin and mineral supplements (MS: ABC, 30/4/2003).

- Rene Rivkin’s reputation suffered when he recommended to buy Pan’s shares before the company went into bankruptcy (MS: Crikey.com, 29/4/2003)

- The TGA’s reputation as publicly attacked by Pan’s CEO and board members. Jim Selim said that the TGA intervention was as “draconian, unwarranted and most unusual” (MS: AAP, 25/8/2003).

4.3.4.2.2 Staff Morale

- The staff of Pan Pharmaceuticals endured months of job uncertainty and the prospect of losing all their entitlements.
Pan’s employees lost their jobs at Pan Pharmaceuticals although some were later re-employed by other organisations which bought the most profitable part of the business.

4.3.4 Emergent Themes

Table 4.D: Pan Pharmaceutical Emergent Themes

<table>
<thead>
<tr>
<th>Category</th>
<th>Theme</th>
<th>Frequency</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic preparedness</td>
<td>Crisis management plan not helpful during the crisis</td>
<td>1</td>
<td>KCM1. No CM plan was ever obtained by this research project</td>
</tr>
<tr>
<td></td>
<td>Processes more relevant than documents to manage the crisis</td>
<td>1</td>
<td>KCM1</td>
</tr>
<tr>
<td></td>
<td>Risk management plan never implemented (developed?)</td>
<td>1</td>
<td>R. Gottliebsen</td>
</tr>
<tr>
<td></td>
<td>Some members of the board with experience and training on crisis management</td>
<td>1</td>
<td>KCM1. No evidence was ever produced to back up this assertion. KCM1 had previous experience in dealing with high-profile crisis</td>
</tr>
<tr>
<td></td>
<td>Destruction of evidence/ Blocking investigation</td>
<td>4</td>
<td>Content Analysis/Media coverage from January to May 2003</td>
</tr>
<tr>
<td></td>
<td>Blaming others</td>
<td>16</td>
<td>Content Analysis/Media coverage from January to May 2003</td>
</tr>
<tr>
<td></td>
<td>Insider trading</td>
<td>4</td>
<td>Content Analysis/Media coverage from January to May 2003</td>
</tr>
<tr>
<td></td>
<td>Denial of the causes of the crisis</td>
<td>2</td>
<td>Content Analysis/Media coverage from January to May 2003</td>
</tr>
<tr>
<td></td>
<td>Refusal to apologise</td>
<td>2</td>
<td>Content Analysis/Media coverage from January to May 2003</td>
</tr>
<tr>
<td></td>
<td>Lack of preparation for a product recall</td>
<td>30</td>
<td>Content Analysis/Media coverage from January to May 2003</td>
</tr>
<tr>
<td>Stakeholder relationship</td>
<td>The regulator was more hostile than the media</td>
<td>1</td>
<td>KCM1 perception</td>
</tr>
<tr>
<td>history</td>
<td>The media was more hostile than the regulator</td>
<td>1</td>
<td>44 per cent of printed articles were negative of Pan Pharmaceuticals</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Content Analysis/Media coverage from January to May 2003</td>
</tr>
<tr>
<td></td>
<td>The media was more hostile to the regulator</td>
<td>1</td>
<td>77 per cent of articles referring to</td>
</tr>
</tbody>
</table>
The media was hostile to the industry

We kept the staff informed regularly about the crisis

We told the truth at all times

We sought external advice

1 The suspension came without warning.
2 The board had no idea of the TGA’s complaints
3 If the TGA had advised us earlier we could have rectified (addressed) their concerns earlier

Erosion of the relationship between the top executives and its board of management

Crisis history

No lessons were learned from previous crises

4.3.5 Summary

Pan Pharmaceuticals was not prepared for any type of high-profile crisis— not even for the most common type of crisis affecting the pharmaceutical industry: *product recalls*. Although the general processes and documents in place helped to manage the
crisis (vision and values, short-term and long-term plans etc.) these were of low value for Pan to either avoid the TGA’s license suspension or to reinstate it. Pan resorted to reactive tactical responses *ad-hoc* and on the spot that were too little and too late to resolve the crisis. For example, the company hired, at the last minute, an international consulting firm to assist it during the product recall process. Pan did not have a stakeholder plan or a specific allocation of resources to maintain and/or increase the quality of its relationships with its major stakeholders. Although the relationships of Pan Pharmaceutical and the Complementary Healthcare Council (CHC) seemed to be in good shape (as illustrated by the prestigious award granted by the CHC to Jim Selim), this relationship did not help Pan to manage the crisis. Based on the history between the TGA and Pan Pharmaceuticals and the strict interpretation of the law and regulations exercised by the TGA during the crisis, it is reasonable to conclude that the relationship between the TGA and Pan was *non-existent* or very bad to say the least. The media, in particular the national Australian media, was very hostile towards Pan Pharmaceuticals and the alternative medicines industry as a whole, 64 per cent of the articles published nationally having a negative coverage of the crisis. This percentage of negative coverage was well above the RMIT crisis (51 per cent) and Esso’s crisis (41 per cent).

KCM1 perception of Pan as having an “*excellent or good*” relationship with its shareholders previous to the crisis, could have been a byproduct of its legal obligations with ASIC and the ASX rather than resulting from a strategic stakeholder approach.

Pan Pharmaceuticals did not learn from previous crises. It relied on the skills learned by members of the board from previous crisis related work experiences.

Pan had the worst outcome an organisation can get from a high-profile crisis: it ceased to exist as a business entity. Its major shareholder and founder, Jim Selim, lost hundreds of millions of dollars and is facing civil and criminal charges. The rest of the shareholders lost their investments. The staff lost their jobs (although some of them were later rehired by other businesses). The organisation via its voluntary administrators is locked in civil litigations that will keep them in court for years to come. The reputation of Pan’s board members and of the complementary medicines industry was tarnished.
A well-known crisis practitioner and former editor of *The Age*, Mike Smith (MS: *The Age*, 3/5/2003), summarised from his perspective, the tactical crisis response mistakes made by Pan:

- Refusal to co-operate with the Australian Government meant that Pan lost control of the problem.
- Pan should have apologised instead of trying to place the blame on a chemist and the former CEO, Jim Selim.
- Pan should have shown that it was doing what it could to solve the problem.

Pan’s case would be used in the future as an illustration on how *not* to prepare and/or manage a high-profile crisis.
4.4 Esso’s Longford Gas Plant explosion - Case Study

“When developing crises scenarios, think about the most obscure things it could happen, and now you are in management.” KCM2, 2005

4.4.1 Abstract

An explosion in one of Esso’s plants in September 1998 triggered a crisis which would cost the life of two Esso workers, and billions of dollars in damage to the organisation and to customers.

The company’s official website indicates that Exxon Mobil Corporation is the parent company of Esso, Mobil and Exxon-Mobil companies in Australia.

- Australia’s largest integrated petroleum company.
- Commenced operations in 1895.
- Provides employment for around 1,700 people directly and provides indirect employment for many thousands more.
- Annual expenditures are around $A2 billion.
- Collects/pays around $A800 million in taxes to Local, State and Federal Governments.
- Operates 21 offshore oil and gas production facilities in Bass Strait and processing plants at Longford (near Sale) and Long Island Point (near Hastings).
- Produces 15 per cent of Australia’s liquid petroleum requirements.
- Supplies natural gas to Victoria, Tasmania, New South Wales, South Australia and the Australian Capital Territory.
- Owns and operates the Altona Refinery in Melbourne, which supplies half of Victoria’s petroleum requirements.
- Supplies a retail network comprising approximately 850 sites, of which about 350 are located in major metropolitan areas along the eastern seaboard. (WEB: Esso).
The Longford gas plant was a joint venture equally split between Esso and BHP but it was fully operated by Esso. The Longford plant provides about 98 per cent of Victoria’s gas requirements. According to the CSIRO (WEB: CSIRO), the production of oil and natural gas in Australia exceeds $15 billion a year. The umbrella organisation for this sector is the Oil Industry Association, a member of the Australian Chamber of Commerce and Industry (WEB: ACCI).

4.4.2 The Crisis Genesis

The Longford Royal Commission Report (LRCR, 1999) described the Esso crisis event:

… An accident at the Esso Gas Plant at Longford, 20km from the town of Sale, on 25 September, killed two workers and injured eight (one critically) when a vessel in gas plant number one processing facility fractured, which caused several massive explosions and triggered fires at the State’s main gas plant. The explosion closed roads within a 5km radius of the plant, with hundreds of residents evacuated. It wasn’t until two days later, 27 September, which the last of the fires were extinguished. The disaster immediately severely affected Victoria’s domestic, commercial and industrial use of gas for a fortnight. About 1.3 million households and 89,000 businesses were affected and export earnings alone, were cut by over $200 million. Standowns and production losses for affected Victorian and interstate businesses and factories were initially estimated by the Victorian Employer’s Chamber of Commerce and Industry to cost up to a billion dollars (MS: ABC, 5/8/1998). Safety procedures forced the closure of all three processing plants at Longford. With No 2 and 3 plants located well away from the blaze, and suffering minimal damage, concerted efforts were made to bring both quickly back on-line to service the estimated 4 million Victorians affected by the shutdown. On 4 October, limited resumption of gas supplies began with the final restoration of gas service to all customers on 14 October. A royal commission began a preliminary directions hearing in the Supreme Court on 12/11/1998. The explosion occurred because the night of September 24 was one of the coldest that year and the demand from Victorian households for gas led operators at Longford to increase the flow from the Bass Strait wells. The
equipment couldn't handle the load, the workers weren't well enough trained and the system failed.

But for KCM2 the Esso crisis event was not one but three different crises. KCM2 described it as a crisis with:

… three phases. The first phase, the initial crisis, the loss of gas, the death and injuries, were part and parcel of the initial phase. The next phase, and run in parallel almost, it was the rebuilding of the Longford plant in readiness to supply sufficient gas for the following winter. This occurred in September 1999, once the plant that was damaged was isolated, plants 2 and 3 started; there was plenty of gas to provide right through the rest of winter and summer. By June 2000 it was critical to have plant 1 up and operational so that was a crisis in a way, because the media and the government were incredibly interested in our progress in order to ensure that we will not be short of gas for the following winter. The third one was managing the royal commission, which in itself was … started in early December in 1998 and the report was issued in early June 1999. All of them were different crises.

KCM2 made a very positive self-assessment on the way the crisis team executed the crisis plan:

…I think it was brilliant! The actual plan! We take some credit for putting it up together for a long period of time. But the plans for me were brilliant because they allowed us to throw into action immediately, without panic, without hysteria. We planned and managed the public affairs. We planned and managed the “on-the-ground crisis”. Operationally, the plan, that directors of the company applied and managed… it was just a text book approach, because we have written a text book. In terms of the initial crisis, I believe, and it is not just my belief, that the outcome was significantly more positive than negative towards the company. I am talking about the time up until the gas was restored to the community. I say that because we did do analysis with Rehame, an organisation who did all our media monitoring. They did some analysis of the
media and their view was that it was essentially more positive than negative throughout that period of 10–to 12 days, whatever the time was.

In the media section we compared our content media analysis with the crisis outcome assessment made by Rehame (WEB: Rehame).

4.4.3 Esso’s Longford Crisis Evaluation

The interviewee is refered to as key crisis member 2 (KCM2).

4.4.3.1 Strategic Preparedness

QA What type of strategic preparedness did the organisation have in place previous to the high-profile crisis (strategic preparedness dimension)?

4.4.3.1.1 Processes and Documents

Esso had specific crisis plans and had trained its staff to manage certain types of crises.

KCM2 was confident that the management team was prepared for this type of event:

… in terms of [the crisis] strategic planning, in terms of crisis communication we had a series of exercises… it was the primary part of planning and executing the business we used to do those things on a regular basis... It is not a good company if you do not do those things. A big company must do those things. We were all trained in crisis management because we had a well-rehearsed, well-prepared plan for crisis management and we exercised this plan on a regular basis.

The crisis preparation activities taken by Esso were generally consistent with the crisis literature where several authors have highlighted the importance of crisis preparedness (Shrivastava et al., 1989; Lajtha, 2002) as a key element to increasing the ability of organisations to manage a crisis.
KMC2 said:

... I do not think that you can have the processes without being documented. So processes only exist if they are documented, because if they are documented and I moved on, they have a documented process. There is no point to have a process that it is only in my head so they are part and parcel of one another, processes, you have your documents and then you practice them. If it is a stakeholder process you implemented and then you do it, if it is a crisis management plan process then you practice it. You invent an event oil spill, a fire in a plant and then you practice it. How you would handle it and that sort of thing.

The documentation of plans is an issue that is becoming hotly contested. Some scholars and practitioners support the idea that any crisis process must be documented (Lukaszewski, 2005). However, authors like Marra (1988) believe that their value is overrated and that other variables are equally important such as having the process itself as a learning tool.

KCM2 stated:

... we had, over many years, practiced, and we had what we can call minor crises. To manage, we had few oil leaks and spills and different things like that that do happen during an oil industry operation which we always managed under the crisis management plan. If there was not a crisis, we invented one and we practiced it. The crisis management team, both from operations and public affairs, was put into practice probably three times a year. On one occasion we had one that went for three days practice, it went for 24 hours for three days. So we physically had practiced and had a very sound plan of activities and actions that each person would have in a crisis, each of them had well defined (sic) on what they would do, back-ups for those people in a crisis. They were basically – pull out of a paper and say, this is my role in a crisis. It was very well planned. Then we just swam into it, the very day of the crisis. It was not changed, it was not varied. It just was what we did. It was typical of the Esso organisation to have very strong plans and ways of what we do about things.
The lack of variation of Esso’s crisis plan contradicts some of the findings of the most recent crisis literature. For instance, Lajtha (2002) suggests that crisis management plans and training methods are not enough and tend to be ineffective and inadequate. The authors emphasise the importance of developing key managerial capabilities, flexibility and confidence to deal with crisis situations. The development of these capabilities would have required, according to Lajtha, and translating it to Esso’s crisis, for the crisis team to depend less on the written plan document and more on their team capabilities to deal with the crisis.

4.4.3.1.2 External Advice

It was envisaged, as Esso’s crisis preparations, to work closely with an external consultancy firm. KCM2 said:

...in the sense that they (the external consultant) were part of our crisis management plan, because you never have enough people on the ground, it was to have an external body, external organisations, that you sought assistance from in terms of people to fill roles and also to give advice, and that was Hill and Knolton was the company. They no longer exist in Australia. It is an American company. They were always part of our crisis management plan. They were there with the Chief (Chairman). It was there to bounce ideas and so forth. This company and the people involved that assist it in the real crisis were always part of our public affairs activities. They were part and parcel of any plans and practices that we did. So when you said (asked) ... whether we incorporated their advice, they were very knowledgeable in terms of the way we went about things. It was really a matter of working together and spinning of one another in what we may do.

KCM2 illustrated the participation of the external consultant firm:

“... advice for example on the first night. The 7:30 Report called and said they would like a live interview. The event occurred at 12:30 on the 25th of September. This was the sort of thing I would discuss with Hill and Knowlton. Whether we should we go and the pros and cons of doing it. And we say yes. Let’s do it.
The external advice was from the point of view of KCM2 “positive”.

The use of external consultants is not questioned by the crisis literature, although its efficiency has not been proven empirically. Borodzicz and Haperen (2002) argue that the role of consultants is to empower organisations to learn for themselves and continue after the consultants have left. In the case of Esso, the external advisors acted as part of the organisation and were an integral part of Esso’s crisis preparation. However, it is not clear the extent to which Hill and Knowlton trained and mentored individual Esso staff on crisis management with the specific aim of developing their individual crisis related abilities.

4.4.3.1.3 Messages

Esso did not have explicit protocols to develop media messages but during the simulation exercises the crisis team developed messages related to scenarios close to the experienced real events: a potential plant explosion. The rehearsal of this scenario may have helped Esso’s crisis team to develop implicit ways of developing messages.

The crisis management literature has not paid enough attention to overall message developing or message construction. The literature in this field focuses on the production of media releases. Hoger and Swem (2000) argue that experts strive to ensure that everything said (in media releases) conforms to the intense structures of each field (public relations specialists and lawyers). Tyler (1997) maintains: “… the public does not distinguish between that which is legal and that which is ethical”. According to Bivins (1991) “… under the law, the lawyer and the public relations specialist must avoid any sort of defamatory words”. Esso failed on both accounts when talking to the media after the accident, as Esso acted both illegally and unethically (as demonstrated by the Royal Commission findings), having implied consistently during the crisis that an operator error was the cause of the explosion and hiding vital information about the causes of the accident.
4.4.3.1.4 Media Contacts

KCM2 said:

We decided that we were going to hold regular media briefings on each day until such time as it was no longer necessary because it was becoming impossible to manage the amount of information the media wanted so it was better to find a specific time of the day and say, right we are going to give you a media update of what it is happening. We found that the principle of that was, that if you do not talk to them somebody else will, and if somebody else talks to them, knowing a lot less than you do they will give a different angle than you will. Media is basically lazy. As long as they get their door-stop they are happy.

The strategy to organise regular media briefings on each day is a standard procedure for a crisis situation.

4.4.3.1.5 Spokespeople

Previous to the crisis Esso decided to have a single spokesperson with the flexibility to have the Chairman in this role depending on the circumstances. This decision was consistent with Esso’s strategic crisis preparation. This role was assigned to Ron Webb, Corporate Affairs Manager. KCM2 explained this decision from the point of view that it was more appropriate to have an Australian with more available time, rather than an American, to focus on the media side of the crisis:

…it would have been impossible for the Chairman and Managing Director to have performed anymore that he did, in terms of the external focus with the media… he was very good at it, he was also an American, with an American accent, and we firmly believe that it was better to have an Australian accent talking about the crisis. But it would have been impossible for him to have done it… so what would have happened if we had said that only the Chairman was going to be the only point of contact with the media? It would have been very little media contact, and therefore the media would have been upset by not being able to talk with somebody. His role was critical to the management of the crisis from an overall management point of view, that it is the physical work on
the ground and the relationship with the stakeholders in United States, and with the government here in Australia. If one understood that there were probably 40 calls a day during the first 10-12 days. There were television interviews, every day, sometimes three times a day for the first 14 days. It would not have been possible for the Chairman to do anything else.

The decision to have a spokesperson relevant to the audience is consistent with the crisis literature (Arpan, 2002) which argues that audiences give more credibility to the spokesperson they most identify with from a values and cultural perspective.

4.4.3.1.6 Victim’s Compensation Policy

Esso did not have a victims’ compensation policy as part of its crisis-preparedness strategy. The crisis literature indicates that during a crisis it is not a good idea to develop one. Marcus and Goodman (1991) argue that corporate crises increase stakeholders’ demands in such a way that conflicts can arise between shareholders and victims. Marcus and Goodman maintain: “… if managers accommodate the victims’ demands (by developing *ad hoc* policies) the shareholders will tend to suffer”.

This lack of compensation policy inflicted serious damage to the reputation of Esso as it lost case after case before the courts in issues related to compensating the victims and their relatives. On 19 December 2001, Justice Cummins awarded $1 million compensation to the Longford victims (*MS: AAP, 19/12/2001*). However, the compensation costs for the direct victims were going to be higher than expected. On June 2003 AAP reported that:

… Multi-national energy giant Esso has been ordered to pay a further $1.37 million in compensation to workers who suffered anxiety disorders as a result of a fatal 1998 blast at a Victorian gas plant. The awards announced today by Justice Philip Cummins in the Victorian Supreme Court come after earlier payments of more than $1 million to the families of the two men killed when an explosion tore apart a section of the Esso plant at Longford in the state's east.
The judge’s orders today covered 20 staff and members of their families who had suffered various forms of post traumatic stress (MS: APP, 23/6/2003).

4.4.3.2 Stakeholders’ Relationship

QB What was the status of the relationships between the organisation and its main stakeholders before and after the high-profile crisis (stakeholders’ history dimension)?

KCM2 said:

…We had very strong processes of communicating with our stakeholders over many years as part of the process of managing a crisis and managing your business is to know your stakeholders and to communicate with them on a regular basis. We had a plan for being in touch with and talking to our stakeholders without a question. We would have an annual meeting with the key people in the Sales area, that is the Longford areas where the crisis was, the city major, the senior council people, the police, the fire brigade and invited them to a dinner. Once a year, we go down and we take our operations manager, myself and few others and we actually have an hour and three quarters presentation about what Esso is doing… where it is going… this is (was) not a crisis, we are just communicating with people. We do that at Barry Beach, which is our operation down at South Gippsland. We do it at Hastings; down there we have an operation. Now they do it at Altona and other places. This was part and parcel of our stakeholder management. We would regularly meet with Government people to tell them what we are doing. In Canberra, we had functions at the opera… and so forth.

Esso followed in part the crisis literature regarding best practice in stakeholder relationships. Gonzalez-Herrero and Pratt (1996), Ulmer (2001) and Coombs and Holladay (2001) coincide on the importance of establishing strong relationships with key stakeholders in order to develop a pre-crisis credibility positioning. Esso did these stakeholder relationship-positioning activities in depth in relation to the local government and community of Sale, the local fire brigade, the police, the Federal and
State Governments and the staff at Longford. However, Esso did not develop strong relationships with the State regulators: WorkCover Victoria and Gasco and with insurance companies. It is also not clear how strong Esso’s relationship with its business partner BHP was.

According to KCM2, Esso had a good relationship with the shareholders, suppliers, customer and the media. KCM2 said:

… [from the Australian point of view] our shareholders are in the USA. So that relationship is strong in the sense that it is the management of Exxon in the USA as distinct from our individual shareholder because the individual shareholder of Exxon in the largest company in the world does not think about Australia. You know what I mean, we always think about the shareholder as the people in Dallas, Texas.

4.4.3.2.1 Internal Communication

KCM2 stressed the importance that the crisis team gave to keep the staff informed about the crisis developments before these were made public. KCM2 said:

… I think companies sometimes forget their own people so it is communication. If you have a good communication program it includes that to ensure that your internal communication is very highly focused… sometimes if you are not careful, if it is not strong in your planning, it can be overlooked because, you know it is your own people.

KCM2 continues:

… and to employees, the constant updating to employees, obviously mostly by email, this was the full gamut of our employees and then frequently with stand-up meetings in our cafeteria from our head office people who were the most distant people from it.

Although no studies were found of the effect of internal communications on a crisis event, closely recent related studies have been carried out in the corporate reputation field. Dortok (2006) argues that there is a positive relationship between
internal communications and corporate reputation. Based on this argument, Esso’s strategy to fully inform the employees before the media could have positive effects on the way the public was perceiving the management of the crisis (via the information they were getting directly from Esso’s staff). We could not find negative comments made to the media by individual staff members. The use of the email was successful in the Esso crisis. The use of the email has just recently been studied. DiNardo (2002) argues that “… the internet is an ideal tool to communicate crisis management efforts because it enables organisations to reach a large audience, with in depth information in a consistently responsive fashion”.

4.4.3.2.2 Media

KCM2 said in relation to the quality of the relationship that Esso had with the media:

… I would say that there was a reasonable relationship with the media beforehand and the interesting thing is the media after a crisis, generally, goes out to burst out… it is not the informed media in a crisis. The media relationship we had was probably stronger with the resource media industry and with the most senior elements of the newspapers as distinct from the reporters. In Australia, I would not put any great difference between state and federal media. There was no linkage with the international media.

Our media content analysis (see Appendix, Table III.1 and Table III.2) of 612 local, state, national and international articles published between 26 September 1998 and 30 June 1999 (month in which the Royal Commission presented its findings) resulted in an overall negative media coverage of 37 per cent, 48 per cent “factual” articles and 15 per cent “positive” articles. The national media had 41 per cent negative articles in this period compared to 35 per cent for the state media and 14 per cent for the international media. In relation to the national and state media, there was indeed a difference of 6 points.

We also compared the initial media coverage between the initial crisis period (from 26 September to 10 October 1998 – fired control and resumption of gas supplies) and the second period (from 11 October to 30 June – rebuilding the gas plant 1 and the
Royal Commission) in order to test the assumption made by KCM2 that the initial media coverage was more positive than in the second and third period. The results were surprising. Forty-nine per cent of the national media articles for the first period were negative and 15 per cent positive. For the second period the national media scored 39 and 16 per cent respectively. Media-wise, the first period seemed to be more successful than the second period. Of course there was more intense scrutiny of the media in the second period (183 articles) than in the first (47 articles). But we found opposite results when comparing the state and local media coverage. In the first period 29 per cent of state and local media (out of a total of 150 articles) were negative and 40 per cent in the second (out of a total of 225 articles). Esso saw this media coverage as a victory (based on the results of the Rehame media analysis) as Esso was more interested in the state media than in the national (having Victoria as its main business centre and the Victoria Government as its main business client) and particularly more interested in the coverage of the most popular state newspapers in Victoria: *The Age* and the *Herald Sun*. *The Age* newspaper had in the first crisis period 32 per cent negative articles and 19 per cent positive compared to 35 per cent negative and 10 per cent positive articles for the second crisis period. *The Herald Sun* gave Esso a very negative coverage in one of the two articles published about the crisis. This negative coverage was slightly better for the second period. *The Herald Sun* had 38 per cent of negative articles in the second period (out of a total of 24 articles).

4.4.3.2.3 Industry Association and Peers

KCM2: “… It was a developed relationship that I had with the other public affairs managers and the industry association etc., which were informed during the crisis on our side of the crisis. We had frequent get-togethers”. The industry association and peers did not defend the position of Esso publicly, despite KCM2’s perception of having good relationships with both entities before the crisis.

4.4.3.2.4 Federal and State Governments

For KCM2 Federal and State governments were the same as the regulators. KCM2 believed that they had a good relationship with them all. The facts demonstrated that this was not the case by 29 April 1999, the day that the Premier of Victoria Jeff
Kennett called the Esso submission to the Royal Commission “stupid”. The Premier characterised Esso’s position of blaming one of the operators for the accident as “staff assassination”. By the end of March 1999, Esso and the regulator Gascor were involved in a war of words.

4.4.3.2.5 The Union

KCM2:
…I think that when it comes to the union, under the circumstances it is very difficult to have a very strong relationship with them when they get an agenda that does not meet your requirements. In the case of rebuilding the plant in Longford, the union association – the construction of it, they milked the whole thing to their advantage and to our disadvantage. I mean, whether we had ever created a better relationship with that group of people, would have made any difference? – I doubt it!

4.4.3.2.6 Other Stakeholders

In general terms KCM2 said that: “I do not think that we can say we had a bad relationship with anyone”.

But Esso did not have specific and ongoing stakeholder plans to develop their stakeholder relationships beyond the activities they carried out annually with the communities where they have their processing plants and some environmental groups.

According to KCM2, Esso tried to develop some corporate social activities, in particular with some environmental groups. KCM2 said: “… In terms of our contribution program to provide support to organisations, there were some organisations that we did provide money to, like the World Wild Life Fund. Certainly not Greenpeace. It was that sort of relationship with these people”.

With this comment KCM2 implicitly made a division between acceptable and unacceptable stakeholders. The philosophy behind stakeholder engagement is to build relationships with those organisations that may hinder your efforts to manage the crisis. KCM2 was probably expressing the US-based parent organisation policy as illustrated by the campaign that Greenpeace ran against ExxoMobil for its stance regarding climate
change. Gueterbock (2004) claims that the campaign exerted great damage to the reputation of Esso.

4.4.3.4 Crisis History

QC What lessons did the organisation learn from previous high-profile events within their own organisation, the industry or within the general field of crisis management (crisis history dimension)?

KCM2 was of the view that Esso had not experienced any previous major crises they could have learnt from.

KCM2 said:

… I would suggest to you that in 30 years of operations, gas has never been interrupted at Longford. I still say that the industry in general has had a pretty good [run]. Thirty years of operations in Esso, this is the first time that the gas has been interrupted. Correction second time, the first time was two months before. It was minor and it did not have a major overall effect. In terms of industrial accidents within the Esso organisation this is the worst we have ever had in 30-plus years of operation. In terms of the industry itself, it is far better than other industries by a long shot, some operators are better than others and I think that Esso has been an exemplary operator over that period of time. Specially, considering that we are dealing with oil and gas that are inflammable products. I have been in operations roles for years. In 1969 we had a minor oil leak. We had never had a major crisis really that put Esso on the map until Longford. Many did not know where Longford was before the crisis.

But some media reports contradicted the account of KCM2. On 1 October 1998, it was reported that:

… The massive explosion at the Esso gas plant in Victoria’s east last Friday was the second major disaster there – another big explosion occurred 28 years ago. In 1970 the Longford plant, which supplies Victoria with virtually all its natural gas, was blown off line in similar circumstances, former newspaper photographer Dennis de Costa (de Costa) said today. Esso confirmed there was a
major explosion in the plant in August 1970. According to contemporary media reports nine workers were injured, with five taken to Gippsland Base Hospital. The 1970 explosion did not disrupt gas supplies. 

(\textit{MS: AAP, 1/10/1998})

On 7 April 1999 the media reported that Esso, according to experts, did not learn from other previous crises:

… Esso's corporate structure failed to prevent the explosion and fire at its Longford natural gas plant last year by not applying safety lessons learnt in its other divisions, the royal commission into the event was told today. Esso did not apply to its petrochemical division safety lessons learnt in its coal mining division after the 1994 Moura mine disaster, Australian National University safety academic Dr Andrew Hopkins told the commission. Similarly, lessons learnt from the 1988 Piper Alpha oil rig fire in Britain were not applied to Esso's Australian operations and could have prevented a similar accident on the Tuna platform in Bass Strait 10 months later, he said. (\textit{MS: AAP, 7/4/1999})

KCM2: (about analysing the crisis):

…we did it to a moderate extent. I think it was done qualitatively instead of quantitatively. Because the crisis really continued on in terms of rebuilding the plant and the Royal Commission, we really did not put our priority to look into it. Put it this way, we felt quite good about how it went. The initial phase in terms of getting the plant up and running again so you know it was intuitive I suppose. But normally in any small event, we would always have a post mortem. And in all of our exercises we always had people who watched, who were not part of the exercise, to evaluate the exercise that went on. But of course in this particular crisis we did not have people watching what we were doing. I guess the way in which the whole process continued and the various elements of it – for nearly a year we did not really get around to the normal form of process in this particular event.
KCM2 believed that there were not many things they would have done differently:

… I do not know about any event that did occur, that I would say that, for the public affairs point of view, I would have suggested… You know, we would have done something (different) so it would have been better (outcome). It sounds as though we were wonderful; I do not want to infer it, with the exception of perhaps, the Royal Commission process where it is very questionable. But it might not have made anything or made it better if we had avoided any comments in our report to the Royal Commission, regarding our employees that were part of the operation on the day of the fire. We do not know, maybe that it would have been better (strategy). In hindsight, I firmly believe what we said in the Royal Commission report was factual (and it was) in the way it should have been presented. But of course, in itself (our legal position) cause some hard from the press… and hard to the company, but we said it as we believed it was right to say. I did not disagree with that.

The crisis literature strongly recommends organisations pay close attention to the crisis history to develop sound crisis management capabilities. The model of Coombs and Holladay (2001) combined the stakeholder relationship history and the crisis history to measure the performance history of the organisation.

4.4.3.5 Crisis Outcomes

QD What were the types and impact of crisis outcomes (tangible and intangible) produced by this event, from the point of view of the interviewees and the media?

4.4.3.5.1 Tangible Outcomes

4.4.3.5.1.1 Financial

Four Melbourne law firms pooled resources to form a giant $1.35 billion class action against Esso; the insurance companies were seeking more than $350 million (MS: AAP, 1/9/1999).

The Federal Government announced an emergency assistance package for Victoria of $100 million (MS: AAP, 2/10/1998).

BHP is suing Esso for estimated losses of $80 million (MS: The Australian, 27/10/1998).

Esso is fined $2 million for what Victorian Supreme Court Justice Cummins described as “…events which occurred at Longford were no mere accident and were the responsibility of Esso and no-one else” (MS: AAP, 30/7/2001).

Justice Cummins awarded $1 million compensation to the Longford victims (MS: AAP, 19/12/2001).

Esso’s plant was rebuilt at a cost of $500 million and incorporated new safety measures and staffing increases.

Esso would invest a further $100 million in the development and expansion of the Longford plant over the next two years (The Premier of Victoria, Australia News Archive, 13/3/2002).

The Victorian Supreme Court approved a $32 million compensation package for businesses which suffered in the wake of the explosion at the Longford gas plant (MS: AAP, 8/11/2004).

By 1 October 1998, the number of workers stood down rises to 50,000 as Toyota and Ford in Melbourne and Holden in Adelaide shut down production.

4.4.3.5.1.2 Non-financial

CEO and Top Executives

Esso management could face gaol terms if found guilty of manslaughter. The threat of prosecution by the Victorian WorkCover Authority would act as an inducement to reach an out-of-court settlement. (MS: AAP, 29/6/1999).
• A Royal Commission is established by the Victorian State Government on 12/11/1998.
• WorkCover charges Esso with 45 breaches of Victoria's health and safety laws after a year-long investigation into an explosion and fire at its Longford natural gas plant (MS: AAP, 21/9/1999).

4.4.3.5.2 Non-tangible Outcomes

4.4.3.5.2.1 Reputation

• The Victorian coroner found Esso was solely responsible for the 1998 Longford gas disaster which killed two workers and cut the state's gas supply for two weeks (MS: AAP, 15/11/2002).
• The Premier of Victoria Jeff Kennett called “stupid” the Esso management and implicitly Ron Webb for their position (MS: AAP, 27/4/1999).
• The insurance companies blamed Esso for the accident (end April 1999).
• A war of words erupted between Esso and Gascor (MS: AAP, 22/3/1999).
• A review commissioned by the Institution of Engineers, Australia on major hazard facilities (MHFs) such as chemical plants and refineries said industry and the engineering profession found that Esso had not done enough to improve safety. (MR: EA, 28/10/2001).

4.4.3.5.2.2 Staff Morale

• KCM2 said staff morale was low at the beginning (due to the death and the injured) but it was okay by the end of the crisis.
• War of words between the union and Esso (MS: AAP, 12/3/1999).
• Esso’s hard-line position towards the payment of compensation to the victims and their relatives created frictions between staff and management.
### 4.4.4 Emergent Themes

**Table 4.E: Esso Emergent Themes**

<table>
<thead>
<tr>
<th>Category</th>
<th>Theme</th>
<th>Frequency</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic preparedness</strong></td>
<td>Specific crisis and processes</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Regularly training the crisis team</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Running exercises and simulations</td>
<td>3</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Plans documented and updated regularly</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Hold regular media briefings</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Single spokesperson (other than the CEO)</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Working with an External Advisor</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td><strong>Stakeholder relationship history</strong></td>
<td>Know your stakeholders</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Communicate with your stakeholders on a regular basis</td>
<td>1</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>We had regular contact with the communities around our production sites</td>
<td>3</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Keep your employees constantly up-to-date, face-to-face and by email</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Difficult to have a strong relationship with the union</td>
<td>2</td>
<td>KCM2</td>
</tr>
<tr>
<td><strong>Crisis history</strong></td>
<td>No major previous crisis events</td>
<td>1</td>
<td>KCM2</td>
</tr>
<tr>
<td></td>
<td>Esso did not learn from previous crisis</td>
<td>5</td>
<td>Media content analysis</td>
</tr>
</tbody>
</table>
4.4.5 Summary

Overall Esso’s strategic preparedness was consistent with the crisis literature. The facts demonstrated that Esso was very well prepared to manage the first phase of the crisis (a plant fire), not so well prepared for the second phase (dealing with the union) and had no idea about how to confront the third one: the Royal Commission. The crisis team had rehearsed consistently the scenario of an accident provoked by a gas explosion where one of their plants was destroyed by fire and the possibility of having to rebuild it. Its main strength was to have a head of Corporate Public Affairs with an engineering background and an intimate plant maintenance knowledge. But this was also one of Esso’s main weaknesses, as the head of Corporate Public Affairs followed his own experience to frame the media messages in relation to the cause of the accident.

Esso’s main implicit message, to blame an operator for the accident, alienated its major stakeholders: the Government of Victoria, the union, the regulators, the media, the courts and the Coroner. The lack of willingness demonstrated by Esso to change one of their main messages (blaming one of the operators for the fire) when there was an overwhelming rejection of the public and the media of it could well be explained by the literature. For instance, Marcus and Goodman (1991) argue that some leaders consistently deny any wrong doing even when there is enough evidence against them, and this position could be explained by the advice given by their lawyers. The crisis team at Esso was also not prepared at all to deal with the union under crisis situations and to confront a close scrutiny generated by a Royal commission and a progressively more hostile media that did not like Esso’s readiness to blame a low-level worker for the accident.

Esso’s crisis plan had some major gaps in relation to its stakeholder relationship strategy regarding its business partner and the union. The relationship with its major partner BHP and the union did not contemplate the possibility of developing protocols of understanding about roles, responsibilities and special award conditions under crisis situations.

The stakeholder plan seemed to ignore the importance of developing Esso’s relationships with the regulators (WEB: WorkCover and Gasco) beyond what the law demanded.
Esso did not have a corporate memory of the accident in 1970 (KCM2 referred to it as a minor oil leak which occurred in 1969) and as such did not learn from it. It seems they failed to hear what experts were advising on ways to improve their maintenance program. It is interesting to note that at the time of writing this case study, Esso had not conducted a post-mortem of this crisis to feed future strategic preparations. All the people directly involved in the crisis no longer worked for the organisation.

All Esso’s crisis management strategies put in place by the organisation prior and during the gas explosion crisis were put aside during the Royal Commission hearings. Learning from Esso’s experience, we could recommend that the strategic preparedness of any organisation should include the possibility of confronting a legal enquiry and be prepared for it.

In summary, Esso’s crisis preparedness could have been improved by:

- Avoiding speculating about the causes of a crisis
- Developing union award conditions to carry out emergency work during a crisis situation
- Covering/hiding key information about the causes of the accident
- Developing protocols to reassess crisis messages
- Developing protocols to deal with the victims’ relatives
- Developing suitable victims’ and staff compensation policy
- Developing processes to test the acceptance/rejection of public messages
- The clarification of responsibilities between Esso and BHP in a crisis situation
- Developing a strategy to improve its stakeholder relationships with:
  - WorkCover Victoria (Regulator)
  - Gasco (Regulator)
- Insurance Companies.
Esso confronted, for ten minutes, the possibility of reproducing the whole Longford crisis. In June 2006, *The Herald Sun* reported that “… a fire burned at the Esso Longford gas plant for 10 minutes yesterday before being extinguished” (*MS: The Herald Sun, 1/6/2006*).
4.5 Royal Melbourne Institute of Technology (RMIT) Case Study

There wasn’t anything we could do. We took legal advice, we took political advice. We were completely powerless. KCM3, 2005

4.5.1 Abstract

The RMIT experienced a major crisis between 2003 and 2004 relating to the introduction of a new student administration system. What began as a small problem resulted in the resignation of the Chancellor, the Vice-Chancellor and seven council members as well as significant reputational damage to the institution.

The Australian Vice-Chancellor’s Committee (WEB: AVCC) is the association which represents the interests of the universities in Australia. In 2005 this educational sector had a total estimated budget of $13.5 billion from all funding sources. The RMIT is one of 38 accredited public universities.

RMIT University began as the Working Men's College in La Trobe Street, Melbourne in 1887. The University has grown to become one of the largest in the country and has built a worldwide reputation for excellence in professional and vocational education and research. In 2005, the Melbourne Institute (operated by Melbourne University) ranked the RMIT number 24 out of 38 universities in Australia (WEB: AEN). In 2004 RMIT was ranked in 25th place by the same source.

RMIT University is a global university located in the city of Melbourne. It has a student population of more than 57,000 students studying at campuses in Melbourne, Vietnam, with twin programs in Singapore. It offers more than 200 higher education and vocational education programs across a broad range of fields. Many specialist programs are regarded as among the best of their type in Australia (WEB: RMIT). The RMIT has 3,300 equivalent full-time (EFT) staff with annual revenues estimated at $550 million. RMIT’s main educational competitors in Victoria are: the University of Melbourne, La Trobe University, Monash University and Deakin University.
RMIT Council appointed Dr Ruth Dunkin as their new Vice-Chancellor on 2 October 2000 for a period of five years, with the title of “Professor” (MR: RMIT, 7/4/2000). Professor Dunkin replaced Professor David Beanland who retired officially in September 2000. In 1998 Professor Dunkin was the Deputy Vice-Chancellor of the RMIT and from 1999 to September 2000 she was on several occasions the acting Vice-Chancellor. Professor Dunkin was the first female to lead a Victorian university. She was also the first appointed Vice-Chancellor from an administrative rather than an academic background.

4.5.2 The Crisis Genesis

The crisis was triggered by technical failures during the implementation of the RMIT’s academic management system (AMS). The RMIT information technology crisis remained within the confines of the administrative structure of the University until the end of January 2002 when The Herald Sun (MS: The Herald Sun, 23/1/2002) and The Age (MS: The Age, 23/1/2002) started to report on some administrative problems generated by the RMIT’s new computer system. The Age published a follow-up article on 24 January 2002 titled “RMIT Results Glitch a Mystery”, where the technicians from the RMIT and PeopleSoft blamed the computer problem on a yet inexplicable event (MS: The Age, 24/1/2002). This media coverage from The Herald Sun and The Age ignited a sustained reporting and monitoring of the RMIT information technology problems.

The following information describes in detail the genesis of the computer system failure that triggered the crisis and highlights some of the administrative and technical problems. It was extracted from the Victorian Auditor General Report 2003 (RPSA, 2003).

In December 1999, RMIT commenced the Academic Management System (AMS) information technology implementation system project. The objective of the AMS project was to replace the existing student administration management system and the Semaphore international student system. The main student administration management system had been in use since 1982. The Semaphore
system had been progressively developed since 1990 as international students increased \((RPSA, 2003:58 \text{ Paragraph 5.53})\).

The aim of the AMS project was to integrate all RMIT’s student management activities into a consolidated system, using PeopleSoft software while taking the opportunity to exploit technologies, such as the internet, to streamline processes including student enrolments. PeopleSoft was chosen in part because it could provide a single integrated software platform as opposed to multiple systems \((RPSA, 2003:58, P5.54)\).

RMIT University Vice-Chancellor, Professor David Beanland signed a contract with PeopleSoft on the 20 July 2000 to develop AMS \((MR: \text{RMIT, 20/7/2000})\).

The implementation of the AMS was largely outsourced and went “live” in October 2001. The original implementation budget, established in 1999, was $12.6 million and a further $6 million per annum over the following 3 years for license fees, additional implementation work, consultancies and software upgrades \((RPSA, 2003:58 P5.55)\).

Since going “live” the AMS suffered a number of functional and technical problems, including:

- Difficulties in billing fee-paying students
- Difficulties in issuing Higher Education Contribution (HECs) statements
- Delays in processing and advising enrolment details
- Problems with meeting statutory and legislative reporting requirements
- Interface difficulties between the AMS and the RMIT general ledger
- Shortcomings relating to systems performance of both the hardware and the software \((RPSA, 2003:58, P5.56)\).
The Auditor General’s Report identified a number of problems with management practices:

- The AMS project lacked a clear and defined Governance structure \((RPSA, 2003:63, \text{P5.79}).\)

- It had no staff involved with project management skills.

- It was not resourced adequately \((RPSA, 2003:64, \text{P5.81 and 5.82}).\)

- The implementation of the AMS project lacked planning and a risk management assessment of potential problems. The AMS features were not properly tested or ready to be deployed. Key stakeholders were not consulted \((RPSA, 2003:65, \text{P5.85}).\)

- The report concluded that “… the implementation of the AMS project was always a high-risk strategy given its importance to the operations of RMIT and, as such, required robust project management controls \((RPSA, 2003:67, \text{P5.92}).\).

4.5.3 Royal Melbourne Institute of Technology (RMIT) Crisis Evaluation

The interviewee is referred to as key crisis member 3 (KCM3).

4.5.3.1 Strategic Preparedness

QA What type of strategic preparedness did the organisation have in place previous to the high-profile crisis (strategic preparedness dimension)?

Although educational institutions are not classified as crisis-prone organisations (this category of organisations did not appear in any of the ICM Reports within the ten most prone industries from 2001 to 2005) information technology projects are. Information technology organisations are classified by the ICM Reports as crisis-prone industries (which was the case of the RMIT software supplier – PeopleSoft). The software industry occupied the second place in 2005 and 2004; it did not make the list in
2003; occupied the third place in 2002 and the top of the list in 2001. The ICM typology of crisis, under the category of “mismanagement” (where information technology developments are included) was the cause for 6 per cent of crises in 2001, 11 per cent in 2002, 12 per cent in 2003 (lower only to defects and recalls), 14 per cent in 2004 (lower only to white-collar crime) and 14 per cent in 2005 (once again lower only to white-collar crime).

An OECD Management briefing (HTEG, 2001), cited in the Auditor General’s Report, addressed the problems of implementing large IT projects and indicated that: “… budgets are exceeded, deadlines are over-run, and often the quality of the new system is far below the standard agreed when the project was undertaken”.

The Victorian Auditor General’s Report added that as few of 28 per cent of IT projects undertaken in the United States in 2000 were successful in relation to budget, functionality and timeliness. The lack of strategic preparation of the RMIT to manage the computer problem was illustrated by its initial public rejection that the institution had a serious problem. The Australian newspaper reported that the University denied any continuing computer problems. However, this type of attitude seems to be consistent with the literature. Smith and Keil (2003) claim that:

… only 26 per cent of software development projects are completed on schedule, within budget, and with the promised functionality. The remaining 74 per cent are troubled in some way: they are cancelled before the development cycle is completed (28 per cent) or are delivered late, over budget, and with reduced functionality.

They add that, “… many software developers and managers, when saddled with a troubled project, are reluctant to report the actual status”. Glass (2002) goes beyond this by concluding that, “… there may be an epidemic of lying in our field [information systems]”.

The RMIT team working on the AMS project did not make a rigorous risk assessment of it before its development and deployment despite the high-risk environment surrounding this project.
4.5.3.1.1 Processes and Documents

KCM3 said that the RMIT had most of the general planning processes and documents expected from a university of its size, among them: vision and values, short- and long-term plans and risk management processes (generic). However, the RMIT risk management plan failed to identify the risks associated with the critical nature of the information technology project they were going to embark upon and seemed to have discarded both the crisis-prone nature of the software industry and the low success rates for these types of projects.

KCM3 indicated that there were even some major deficiencies in the specific documents related to the management of a crisis. For example, they had a crisis communication plan but it was not adequate for this type of crisis. According to KCM3 “… Yes [we had one] but not for this sort of crisis. But there were ready communication channels to operate. The reputation management process had just started when the crisis erupted. KCM3 added, “… I think this is relatively new everywhere and certainly within universities but it emerged as something through the crisis itself”. The stakeholder analysis was not very sophisticated and the scenario planning was not very good. KCM3 said, “… Probably, as many Australian organisations, we are not particularly good at scenario planning”.

The transformation of the “problem” into “crisis” was compounded by the sudden death on 10 April 2002 of Associate Professor Paul Kennedy, Director of the LTS, and key member of the RMIT’s staff managing the AMS project. Surprisingly, the RMIT did not issue any media releases from January to March 2002 either to announce Professor Paul Kennedy’s death or to address the concerns of the public, students and the media on the computer problem.

KCM3 said that: “… the only document that was somehow relevant to the management of the crisis was the strategic plan. But the strategic plan was referred to during the crisis as a supporting document only. Neither of these documents address more practical crisis issues like “where the cash was going to come from”. According to KCM3, the members of the crisis team were media-trained but lacked training in issues management, message development and crisis management. KCM3 said that the
Vice-Chancellor Ruth Dunkin was never trained informally or formally on crisis management and had no previous experience managing a high-profile crisis.

4.5.3.1.2   External Advice

As the crisis team perceived, they were not prepared to manage this type of crisis and had to rely on external advice. KCM3 stated that:

… we sought and received advice from crisis media people. Particularly, during the first year. We received advice from people from the computer industry to assess the damage and to help to develop a strategy to move forward. We called in consultants to manage the change in a different sort of way and we employed a lot of quality and probity auditors in the various parts of the period going forward. In the early days we followed most of the advice and that was partly because we had no credibility ourselves. So part of managing the crisis was actually re-establishing confidence that we could manage it and one of the things that had happened was that all confidence in our capacity to manage it had disappeared.

4.5.3.1.3   Spokesperson

RMIT had a single the spokesperson for the organisation (role played by the Vice-Chancellor) with a lot of support in the background. This position is consistent with the literature (Arpan, 2002).

4.5.3.1.4   Messages

KCM3 said the messages had the objective of:

- being very clear about what we needed it to do to actually to get though the crisis, particularly the computer and the financial stuff.

- providing reassurance to the constituency of RMIT including staff that in fact there was a way through and that we understood what that way through was.
4.5.3.2 Stakeholder Relationships

QB What was the status of the relationships between the organisation and its main stakeholders before and after the high-profile crisis (stakeholders’ history dimension)?

According to KCM3, RMIT did not have a specific stakeholder plan. This lack of planning ran against the recommended practices by the crisis literature (Gonzalez-Herrero & Pratt, 1996; Ulmer 2001; Coombs & Holladay, 2001). The eight key RMIT stakeholders relevant to this crisis were: The State Government in particular the Education Minister, the Victorian Auditor General, the University’s Council, the staff’s union, the student’s union, the media (in particular the journalist covering the higher education sector), the Australian Vice-Chancellor’s Committee (WEB: AVCC) and the suppliers of the AMS system.

KCM3 rated the quality of the relationship of the organisation with their stakeholders from “very good” to “poor”. It rated its relationships pre-crisis between the executive management of the University, the Council and the staff’s union as “very good”, the State Government and the AVCC as “balanced”, the suppliers (in this case of the AMS project) as “very poor” and the rest of the key stakeholders as “good”. However, the crisis was going to change the status of these relationships within few months in a very dramatic way.

4.5.3.2.1 Media

KCM3 could not recall any specific activities to develop strong relationships and communication with the media and the student union. When we asked KCM3 whether there were any attempts to approach key stakeholders at least three months before the crisis, KCM3 responded:

… No, why would there be? I mean we had ongoing relationships with the media, I mean we would have…We had very good relationships with the media prior to the crisis. There were regular briefings; there were the usual media releases that were going out. People were invited to the key things that the RMIT (was doing). We responded to all their questions, there was not an issue;
there was not anything further you could have done about it. I mean what was going on was that student politics got involved in this, that the people who were destabilising involved the student union; they were running their own political show around the campaign. Underneath they were using the computer crisis and the guy who was the journalist at *The Age* was someone who had been involved in student politics so he was running an agenda, and that has been admitted by people from *The Age*. Then you suddenly have a liaison, a series of alliances, which were being formed by this group that was running under the surface. There is nothing you could have done about that in anticipation, because you would not even have been aware that the alliances were potentially there. Beforehand, we had no information about these groups. And in fact there are many who would not understand what was going on.”

KCM3 had a perception of a “*hostile media*” which is a common perception developed by people involved in high-profile events. Some scholars call this phenomenon the “hostile media effect” (Gunther & Liebhart, 2006; Arpan & Raney, 2003; Banks, 1978). Gunther and Liebhart (2006) defined it as “the tendency of partisans on a controversial issue to see news coverage of the issue as biased in favor of the other side”. But an analysis of the media coverage of the RMIT crisis indicated that not all the media, not all the time, had a negative (biased) coverage of the RMIT crisis (*see Appendix 1, Table IV*). Although for KCM3 this was not the case. KCM3 responded when asked the question, “During the crisis did the relationships with the media change?”

…Well the media clearly did, yes the State [media] and then… but it was individual journos, individual journalists heavily influenced the coverage, so when the journalist at *The Age* changed, the media coverage or the coverage from *The Age* changed significantly… and *The Age* went from being negative to being reasonably straightforward… balanced. And *The Australian* went from being balanced to being completely unbalanced.
KCM3’s perception was correct in relation to The Age coverage as 50 per cent of the articles published by this newspaper in 2002 were negative. But it was not correct in relation to The Australian, as this media had 57 per cent of negative articles for the same period. Both The Australian and The Age had a very hostile coverage of the RMIT crisis. From the total of 25 articles published in 2002, we categorised 52 per cent as negative, 44 per cent as factual and 4 per cent as positive. Overall, the media in Australia was very critical of the RMIT in 2002.

The negative coverage of the RMIT crisis diminished substantially in 2003 and 2004. In 2003, only 33 per cent out of 58 articles had a negative coverage. The Age’s negative coverage increased to 58 per cent but The Australian’s dropped to 35 per cent. KCM3’s perception of a negative coverage by The Australian was not sustained by the statistical evidence in 2003. In 2004, out of a total of 11 articles, the overall media coverage was 36 per cent negative, 64 per cent factual and we failed to identify a single positive article in this period. The Age’s negative coverage fell to 33 per cent but The Australian increased to 50 per cent.

Despite the negative coverage, the RMIT had a number of positive headlines in 2002. The Sunday Age (MS: The Sunday Age, 9/2/2002) printed in February 2002 a more benign headline “RMIT predicts $14.6m surplus”. The article said that this surplus could be achieved despite the unexpected losses coming from the computer system crisis.

By April 2002, there was a slight positional change from The Herald Sun which began to use more hostile headlines like “RMIT online disaster” which reported that the Academic Management System (AMS) was criticised by an independent report. (MS: The Herald Sun, 2/4/2002). In 2002, The Herald Sun was the most hostile media in the coverage of the RMIT crisis with 67 per cent of negative articles.

The salary increase granted to the Vice-Chancellor Ruth Dunkin at the end of October 2002 refuelled the crisis in the media, since it was seen as an action that contradicted the financial media stated position of the University. The public perception that the RMIT had financial problems as a consequence of the computer problem was taking hold on the public opinion. (MR: RMIT, 25/10/2002). The Age published an
article at the end of October 2002 with a direct attack on the Vice-Chancellor titled “Crisis, But RMIT Head Gets Pay Rise”, where it stated that “… the RMIT's vice-chancellor was granted almost $80,000 in pay raises and bonuses while the university was in disarray over the failed implementation of a $12 million computer system” (MS, The Age, 25/10/2002). It is interesting to note that the article stressed that the information was obtained from “leaked documents” when in fact the University had already prepared a press release on this issue. But the press release was published after The Age article. As such, it was seen by the media and the public as a reactive RMIT action to the newspaper article. The perception that RMIT was adopting a defensive and secretive position was compounded by the fact that the RMIT did not responded to the media concerns via media releases for eight months (from April to November 2002) and its responses were more reactive than proactive in nature.

On 13 November 2002 The Australian published an article under the headline “Software fix came with $11m price tag” where the software company was portrayed as the culprit and the RMIT as the victim (MS: The Australian, 13/11/2002).

Considering the adverse reporting from The Herald Sun and The Age, The Australian had been very generous with its depiction of the RMIT crisis. Before the end of 2002, The Sunday Age (MS: The Age, 22/3/2002) and The Australian (MS: The Australian, 22/3/2002) published other damning articles with the negative headlines of “Assets To Go In RMIT Crisis” and “RMIT seeks cash for software woes” respectively. The articles stated that the RMIT was asking “… the federal Government for cash advances and [to] off-load $50 million in property assets over the next three years in a bid to cover losses caused largely by the disastrous introduction of a new computer software system”.

At the genesis, progression and transformation of the crisis during the 12 months of 2002, the RMIT issued only three specific media releases and one indirect press release to deal with the crisis (out of a total output of 137 press releases). This is surprising given that the literature clearly supports the view that media releases are one of the most powerful communication tools at the disposal of organisations to engage with their stakeholders (Applegate, 2005; Whysall, 2005). However, the unusual
approach taken by the RMIT crisis team is supported by some studies from the public relations literature such as Delorme and Fedler (2003) who argue that journalists treat public relations people with contempt and that the origin of this hostility could be explained historically.

There were other types of communications between the RMIT and the public via newspapers and television interviews but by any standards the RMIT failed in 2002 to use its own communication resources to reverse the perceptions that its stakeholders were developing of the RMIT as an organisation in administrative and financial chaos. In 2002, *The Age, The Australian* and *The Herald Sun* published 25 articles in total on the RMIT crisis. The newspapers’ extensive coverage ensured that the issue remained alive. The year 2003 was not going to be a better one for the embattled RMIT Council and Vice-Chancellor as the *Australian Financial Review* got in force into the crisis scene, printing a number of critical articles.

During 2003 the media, in particular Crikey.com, targeted the integrity and credibility of Professor Dunkin in a number of internet articles. On 2 February and 29 June 2003, with clearly reputation-damaging headlines of “RMIT VC hanging by a thread” and “Exposed: the Ruth Dunkin PhD”, Crikey.com put in doubt the academic credentials of the Vice-Chancellor Ruth Dunkin, questioning her rapid academic promotion and the quality of her PhD thesis (MS: Crikey.com, 2/2/2003 and 29/6/2003).

The administrative and financial crisis had transformed into a “political” one with a single person representing and being portrayed by the media as the “source of the crisis”. The media view was that there was only one possible solution to the crisis: the dismissal of the Vice-Chancellor. Crikey.com was the media outlet that, during 2003, pursued this goal with the greatest enthusiasm. To illustrate this point, we list below the Crikey.com article headlines during 2003: “The RMIT debate heats up with Crikey's rebuttal” (21/1/2003). “RMIT VC hanging by a thread” (2/2/2003), “RMIT: anatomy of a financial implosion” (9/2/2003), “RMIT moves closer to the abyss” (2/6/2003), “RMIT’s troubles tabled in Parliament” (5/6/2003), “RMIT management condemned by A-G” (10/6/2003), “Exposed: the Ruth Dunkin PhD” (29/6/2003), “RMIT: textbook

Five media outlets, The Herald Sun, The Australian, The Age, The Australian Financial Review and Crikey.com, published over 70 articles on the RMIT crisis during 2003. The media coverage was relentless. Every time that the RMIT was selling an asset or had any movements in its financial affairs, it was widely reported (MS: AFR, 3/4/2003). The media image of the RMIT as an institution wisely managed was completely eroded. The public image was that the RMIT was in serious financial difficulty and trying to sell as many assets as possible to get some cash liquidity. The media message during 2003 was very clear and consistent: the ship is sinking.

The embattled RMIT Vice-Chancellor, Ruth Dunkin’s crisis communication strategy had no clear paths. The RMIT issued eight media releases during the month of February 2003 related to the crisis. In one single month the RMIT produced more media releases that in the whole of 2002. Four media releases were issued to assure the public and staff that the problems were being resolved (MR: RMIT, 4, 12, 27 and 28 of February 2003). One media release was to announce the Council’s full support of the Vice-Chancellor’s strategy (MR: RMIT, 13/2/2003), one to announce the appointment of a new Chancellor (MR: RMIT, 14/2/2003) and two to announce the resignation of six members of the Council (MR: RMIT, 11 and 12/2/2003). RMIT did not issue any crisis-related press releases in March 2003. On 7 April the RMIT issues its only crisis-related press release for the month with the title of “Quarterly Report Shows RMIT back on track” where the Vice-Chancellor assures “… that the March quarter financial results demonstrate RMIT’s financial position is improving and the university is on track to meet its full year target operating surplus of $14.6m” (MR: RMIT, 7/4/2003).

Three related media releases on the crisis were issued in May 2003. One to announce the appointment of members to the University’s Council (MR: RMIT, 12/5/2003), one spelling out the vision of the new Chancellor, which included the intention to deliver on the RMIT’s promised performance against its financial targets (MR: RMIT, 12/5/2003), another signalling the probability of retaining the services of PeopleSoft (MR: RMIT, 21/5/2003). The RMIT was largely ignoring the media
coverage. It produced only two media releases in June, mainly to reply to the Auditor General’s Report being tabled in Parliament. Both media releases were issued on 4 June 2003.

Despite the barrage of negative coverage received by the RMIT in June 2003, the University maintained its apparent strategy to ignore any issues raised by the media using its own communication services. There were no crisis-related media releases in July and August 2003 and only one in September on the computer system titled “RMIT ready for AMS upgrade” (MR: RMIT, 17/9/2003). The circle was closing around the Vice-Chancellor through the media image of financial despair, cash problems as a consequence of the computer crisis, sale of assets to gain control of finances and now staff redundancies. Interestingly enough, there was no media frenzy as a result of the University announcement. It looked as if the media had run out of steam and the crisis had been overcome. But some events which took place in January 2004 reignited the crisis, despite the fact that for some inexplicable reasons, The Herald Sun and Crikey.com halted their around-the-clock coverage of the RMIT crisis and stopped attacking the Vice-Chancellor, Ruth Dunkin.

On 21 January 2004, The Australian newspaper published an article with the headline “RMIT offshore ops targeted”, which, based on an Australian Universities Quality Agency report, indicated that “… RMIT should ‘urgently’ resolve the lines of accountability and responsibility for its offshore teaching and its research training performance” (MS: The Australian, 21/1/2004).

This article opened another front in the RMIT crisis war. The RMIT had been pursuing a very aggressive strategy to market its educational services overseas. The article from The Australian indicated that there were also problems with the quality of the RMIT teaching services. The sale of more RMIT city properties reported by the Australian Financial Review on 15 March 2004 (MS: AFR, 15/3/2004) and The Australian on 17 March 2004 (MS: The Australian, 17/3/2004), created the impression that the financial problems of the RMIT were far from over.

By April 2004, the first crisis breakthrough appeared on the horizon. The Age published a rather positive article on the RMIT with the headline “Turnaround Keeps
RMIT Head At the Top”, which stated that the “… RMIT has pulled itself back from the financial brink” *(MS: The Age, 17/4/2004).*

Ironically, the Vice-Chancellor again drew media attention to herself by sending an email to the RMIT's staff providing a negative outlook of the University's financial future. An article that appeared in *The Age* on 20 August, under the headline “RMIT faces new $20m cash crisis”, reported that in this email Vice-Chancellor Ruth Dunkin revealed a $20 million shortfall in revenue *(MS: The Age, 20/8/2004).*

This article signalled the beginning of the end for Professor Dunkin who, despite her attempts to manage the information technology problem and the financial instability that it generated, resigned on 28 August 2004. *The Weekend Australian* reported:

… after holding the reins during one of the worst financial disasters an Australian university has seen, embattled RMIT vice-chancellor Ruth Dunkin has resigned. As RMIT has lurched from one financial crisis to another during the past two years, Professor Dunkin has steadfastly refused to resign, but *The Weekend Australian* understands she had been told in recent weeks her contract, due to end next October, would not be renewed. *(MS: The Weekend Australian, 28/8/2004).*

Professor Dunkin told ABC Radio on the 27 August 2004 that:

…It has become clear to me that, the high level of media speculation about my future at RMIT and the ongoing public scrutiny of the challenges facing the institution, are undermining the ability of university staff to focus on the core tasks of education and research.

On the same day, *The Herald Sun* also reported:

… Dr Dunkin blamed rumour and innuendo about her leadership in the past year for her departure… I always have and always will put RMIT first. I have therefore taken the decision to stand down to ensure the institution is given the chance that it needs to deal with the issues it faces. *(MS: The Herald Sun, 28/8/2004)*
The crisis resulted in the resignation of the top two executives of the RMIT, the Chancellor Mercer and the Vice-Chancellor Dunkin. No studies were found on the effect of executive resignations on organisations as a consequence of crisis. However, some studies have been carried out on the specific financial effects of top management resignations in organisations. Warner et al. (1988) carried out a study on stock price variations as a result of top management (CEO, President or chairman of the board changes). Their paper concludes that: “… no average stock price reaction is detected at announcements of top management change”. Dedman and Lin’s (2002) research on the “Shareholder effect of CEO departure – Evidence from the UK” found that “… the markets react negatively to announcements of top executive departures, especially when the CEO is dismissed or leaves to take up another job”. Gibelman and Sheldon’s (2002) research on the implications of the departure of the CEO, see their departure as a dichotomy where “… the circumstances surrounding the CEO’s departure can provide the impetus for creative organisational changes or precipitate a crisis that brings into question whether the organisation can survive”.

From January to August 2004 the RMIT did not issue any media releases associated with the crisis. It looked as if the crisis was already over. The media did not report new developments from May to August 2004. The resignation of the Vice-Chancellor Ruth Dunkin was not reported, as common practice, by the RMIT media services via a press release nor was the appointment of the acting Vice-Chancellor Professor Chris Whitaker.

*The Australian* reported on 5 October 2004 a positive note about the computer system at the RMIT under the headline “Troubled Unix plan on track at RMIT”, that stated: “…MELBOURNE’S RMIT University is confident that its controversial PeopleSoft system is stable and that the major move from Windows to Unix is on track *(MS: The Australian, 5/10/2004)*.

The article was balanced and focused on the facts. The article had some reporting characteristics missing from most of the coverage carried out during Professor Dunkin’s tenure.
In fact the next communication associated with the crisis came from Professor Chris Whitaker who, in an RMIT press release on 8 October 2004, “… flagged the possibility of staff redundancies… as the last resort (MR: RMIT, 8/10/2004).

By the time the crisis disappeared from the media and the public eye, the future of Vice-Chancellor Ruth Dunkin had already been decided by the Council. The resignation of RMIT Pro Vice-Chancellor Finance & Business Services, Cameron Moroney, on 19 November 2004, who was perceived as someone loyal to Professor Dunkin, closed the final chapter of the RMIT crisis.

4.5.3.2.2 The Minister for Education

The Vice-Chancellor did not consider the Education Minister as a key stakeholder. Indeed she never tried to get closer to the Minister socially. According to KCM3, “The Vice-Chancellor was on the public record having said that she never met the Minister socially, she [The Minister] had corroborated that publicly”. The media speculated from unknown sources that the Minister was supporting the Vice-Chancellor because both were members of the Labor Party. KCM3 said: “It was claimed that the Labor Party was protecting the CEO of the RMIT because she was a Labor member. She has never been a party member, either Labor or Liberal”.

This was quite surprising from the stakeholder management perspective as supported by Gonzalez-Herrero and Pratt (1996), Ulmer (2001) and Coombs and Holladay (2001) whose studies have corroborated the importance of embarking on pre-crisis credibility positioning activities and on the process to achieve this outcome by establishing relationships with stakeholders. Because being close to the Education Minister was so important to enhancing the University profile and reputation in the political arena, it was expected that the Vice-Chancellor would have tried to improve her relationship with the Minister and with the media. In any case this lack of relationship was assumed by the media as truth and became, ironically, a way of attacking the reputation of the Vice-Chancellor.

On 18 April, The Age reported that the: “… Education Minister Lynne Kosky has told the Auditor-General to investigate RMIT over the botched introduction of a new software system and a ‘culture of blame’ among senior managers.
The decision of the Education Minister Lynne Kosky to request the intervention of the Auditor General, was a clear indication that there was a political rupture between the State Government and the University. The State Government, major stakeholder of the RMIT, began to withdraw its support to the organisation. The Minister’s declaration implied that the RMIT executive team was experiencing political turmoil. The third major stakeholder of the organisation, the senior management team, was succumbing to the media and political pressure.

At the end of June 2002, the Auditor General made a number of preliminary recommendations to the RMIT to fix the computer problem. This was followed by a strong statement from the Education Minister who demanded the RMIT solve the issue by 22 July (MS: The Age, 28/6/2002). The Minister was running out of patience.

Crikey.com entered the debate on 2 November 2002. Crikey was funded by Stephen Mayne. It became an internet media outlet read by politicians and high-profile business people, and marketed itself as a media organisation with access to information from within organisations in trouble. Crikey.com in its internet issue of 2 November 2002 put pressure on the Minister of Education to tackle the RMIT crisis. Crikey.com argued that the crisis at the RMIT could have an effect on the State Government election. This article brought into the crisis scene the Education Minister Kosky, the Premier Steve Bracks and the Labor Party itself. Crikey.com also said that the RMIT crisis was damaging the reputation of the education industry in Australia and that one of the reasons behind the Vice-Chancellor’s appointment was that she was part of that political organisation. Crikey allowed Paula Benson, Manager, Public Affairs, RMIT University to reply to Crikey. Paula Benson provided technical answers to Crikey’s accusations which did not help in the long-term to reduce the political pressure on the RMIT (MS: Crikey.com, 2/11/2002).

The only viable explanation of why the Minister of Education withdraw her support of the Vice-Chancellor so quickly and why the relationship with the Council went from “very good” to “very bad” in a matter of months was given by KCM3. According to KCM3, the relationship between the State Government and the RMIT was media dependent. KCM3 said: “… It was all about the media and the State Government
came second. That relationship was highly dependent on our relationship with the media”. And in a chain-reaction way the relationship with the Council was dependent on the State Government. KMC3 experienced a complete change in the relationship between the crisis team and the Council:

(Did the relationship change?) … Absolutely, yes. It went from good. What was interesting, that for a year… they supported the actions that we took through 2002 remembering that the computer thing failed during enrolment time which was February so they supported us from February through December. Suddenly in December the relationship deteriorated significantly and it was explained in completely irrational terms. I mean, it was probably rational in some logical form but it was not in terms the way it was presented publicly. It was fear of reputational damage.

4.5.3.2.3 The RMIT Council

The article in The Age forced the RMIT to react. The RMIT produced its first press release to address the Minister’s public and media concerns on 18 April 2002 (MR: RMIT, 18/4/2002), three months after the initial media coverage. The Chancellor Don Mercer acted to respond to “inaccurate reports made in the Parliament of Victoria”. Chancellor Mercer stated that the RMIT was in a sound financial position, that the problems surrounding the AMS were being resolved, defending their senior executives appointment procedures and ultimately, indicating that “the Executive of RMIT, including the Vice-Chancellor, Professor Ruth Dunkin, enjoy the full and unqualified support of both myself and the university council”.

The gradual withdrawal of support for the crisis team had a profound effect on the way the Council began to relate to the senior executive team, KCM3 said:

… I always kept a time sheet of my hours and 30 per cent of my time (was spent) reporting to Council and then if you add the media time, the reporting to Government, it was probably around… those three things together it would have (made) 60 to 70 per cent of the time. This was the ongoing state for senior executives of a large organisation (the RMIT). It is ridiculous. So it seems to me
that there is a real pendulum thing where you get an organisation which has been successful for a long time in an industry that it is pretty benign, so there is a level of complacency that creeps in at every level of the organisation, including the Council. And then go into this crisis stuff and you go to the other extreme and the real threat to the RMIT is to be at the other end of the pendulum at this stage.

In fact, the top executives of RMIT effectively stopped running the organisation to spend most of their time satisfying the needs of information coming from the Council and the State Government.

The Auditor General’s Report was very damaging for the RMIT board’s reputation. The Report triggered an internal struggle between the Chancellor Don Mercer and the Vice-Chancellor Ruth Dunkin. The struggle resulted in the departure of the Chancellor Don Mercer who tendered his resignation on 3 February 2003 (MS: *The Weekend Australian*, 8/2/2003). The rest of the Council offered their full support to the Vice-Chancellor. Professor Dunkin rejected that Don Mercer’s resignation was the outcome of a power struggle between them both, just differences of opinion (MS: *The Herald Sun*, 5/2/2003). But the Chancellor Mercer’s reasons to resign included “… that he has serious concerns about its finances” and that there were “… issues that needed to be tackled but that he no longer felt able to influence" (MS: *The Age*, 4/2/2003). Chancellor Mercer lost motion at the Council, which would have resulted in Professor Dunkin’s resignation. Within two weeks of Chancellor Mercer’s resignation another six members of the Council followed his cue and quit the University (MS: *The Herald Sun*, 13/2/2003). All of them were perceived by the Vice-Chancellor team as aligned to Chancellor. Mercer. A new Chancellor, Professor Dennis Gibson, was quickly appointed on 7 March 2003 (MS: *The Herald Sun*, 7/3/2003).

4.5.3.2.4 The Union

The Vice-Chancellor tried to keep the staff union aligned by rejecting the possibility of staff cutbacks as a result of the crisis. The second RMIT release related to the crisis and published on 8 November 2002, stated that: “… the Vice-Chancellor
Professor Ruth Dunkin effectively ruled out cutbacks arising from the cost of the AMS implementation, saying today she had no evidence to warrant such actions” (MR: RMIT, 8/11/2002). The possibility of staff cutbacks was perceived as a real threat by the staff’s union. The union was not willing to pay for the perceived financial misjudgments of the RMIT senior management. This fear was realised when the RMIT on 2 December 2003 dropped a political bombshell on the staff by offering the dreaded departure packages: “… voluntary departure packages will be offered to the 350 full-time and part-time TAFE teachers. It is expected that around 50 teachers may apply”. (MR: RMIT, 2/12/2003). The Vice-Chancellor began to lose her grip on the staff union very rapidly. Forced or voluntary staff reductions tend to have a negative effect on job satisfaction and worsen the relationship between the union and supervisors. Waggar (2001) argues that:

… results obtained from both employers and union officials indicated a significant negative impact on overall employee satisfaction and labor climate… [it] was also associated with a higher rate of grievances and absenteeism and poorer relations between union members and their supervisors.

4.5.3.2.5 The Student Union

The Age reported on 3 April 2002 – with the headline “Software Bug Inflames Excluded RMIT Students” that students continued experiencing problems with the AMS system and the student union had called for the resignation of Vice-Chancellor Ruth Dunkin (MS: The Age, 3/4/2002). On 24 April 2002, under the headline “Software system a flop” The Australian published a rather benign article but where Emily Anderson, president of the RMIT student union, made a direct attack on senior management (MS: The Australian, 24/4/2002).

These articles were a clear message to the RMIT’s Council and in particular for the Vice-Chancellor Ruth Dunkin that one of their major stakeholders, the student union, was now moving towards the transformation of a “management problem” into a “political” one. From The Herald Sun article in April 2002 we could conclude that the RMIT computer “problem” was now being perceived by the media as a “crisis”. For
Coombs (2002), “a true crisis must have an operational component”. And that was exactly the case of the RMIT.

KCM3 concluded that the personal agenda of some stakeholders, particularly in the media and the student union, contributed to the perpetuation of the crisis and the downfall of the Vice-Chancellor. KCM3 explained:

… My perception of the crisis is that it was something different from that and that if there had not been a simultaneously concerted personal attack on the Vice-Chancellor, the objective of which was to dislodge her as CEO not because a computer crisis but for some other reasons, then the media scrutiny of the RMIT would have been significantly less, and the extent of the crisis would have been significantly less. So it was the combination of internal forces within the RMIT feeding the media incorrect information that then meant the media spent an awful amount of time fanning the flames of what was a difficult situation. There is no doubt that there was a major problem caused to the University by the computer system, and that the finances were not strong enough to withstand that, but there were both financial and computer problems. But if the media focus on the organisation had not been what it was and the personal attacks on the Vice-Chancellor through the media had not been what they were, the extent of the crisis could have been significantly less, and in support of that I can point to many other organisations that have had similar computer and financial problems that did not have the public perception of crisis that the RMIT had.

4.5.3.3 Crisis History

QC What lessons did the organisation learn from previous high-profile events within their own organisation, the industry or within the general field of crisis management (crisis history dimension)?

The crisis of the RMIT had the characteristics of a smoldering crisis, which is defined by the USA Institute for Crisis Management (ICM) as “a problem that starts out small and one that someone within the organisation should recognize as potential
trouble and try to fix before it becomes a public issue”. No major high-profile crises had affected the organisation in the last ten years previous to the AMS event. KCM3 said that the closest thing to a crisis was “… in 1997, there was a sitting [students] in one of the buildings that went on for ten days or two weeks and that was a media event as opposed to an operational crisis”. The RMIT had no history of crisis it could learn from. Nor did it try to learn from other crises that affected some of their peer institutions or the industry as a whole. It was never a priority of the top management to prepare for one.

The University did not have processes or documents related to the analysis of previous crises experienced by other organisations, issues management and high-profile crisis management. KCM3 concluded that:

… the stuff about of managing crisis within organisations where there is this kind of political level. You got politicians, the media and lots of different political groups, it is impossible to manage it, it is impossible to prepare for it. I do not think there is any strategy you can put in place that actually would have allowed that to put it through.

No internal crisis official post-mortem has been carried out on the AMS crisis.

4.5.3.4 Crisis Outcomes

QD What were the types and impact of crisis outcomes (tangible and intangible) produced by this event, from the point of view of the interviewees and the media?

4.5.3.4.1 Tangible Outcomes

4.5.3.4.1.1 Financial

- KCM3 estimated the total costs of the crisis for the RMIT at $40 million

The delay in the production of $30 million in invoices affected the cash flow of the RMIT for two years.
4.5.3.4.1.2 Non-financial

- The Chairman of the Council and seven members resigned as a direct consequence of the crisis. KCM3 said:
  … [there was] an atmosphere and absolute environment of fear and that affected everybody in the organisation including the Governing Body and... a significant part of the Council resigned. The Council resigned apparently over financial issues and yet they have unanimously supported the financial strategy that we put to Council six weeks before so... if they had serious financial concerns they will raise them in the Council chamber. They did not. And therefore what was actually going on there, in my view, was just fear of reputational damage of being associated with this continuous barrage of negative publicity around the organisation.
- The CEO resignation.
- Several senior staff resigned.
- The Council felt taken short and as result is now micromanaging the organisation. The amount of reporting and planning means that senior managers and middle managers are spending probably 50 per cent of their time in planning and writing reports. And so the productive time has actually gone down and there is a real trade-off in terms of this process (Source KCM3).
- Staff experienced a 24-month period of uncertainty about their future exacerbated by the RMIT offering voluntary redundancies.
- 55,000 students were affected as their results could not be delivered on time, in particular during the first semester of 2002.

4.5.3.4.2 Non-tangible Outcomes

4.5.3.4.2.1 Reputation

- The reputation of universities as best practice managers suffered.
• A public mistrust developed about the capacity of the RMIT to manage its own business affairs, resulting in closer monitoring of the Victoria Auditor General over financial and administrative decisions of universities.

• The State Government’s lack of confidence over the RMIT management capability resulted in an increased scrutiny on the way universities appoint key staff members.

4.5.3.4.2.2 Staff Morale

• Staff morale reached its lowest historical levels (as perceived by KCM3 and the staff union).

4.5.4 Emergent Themes

Table 4.F: RMIT Emergent Themes

<table>
<thead>
<tr>
<th>Category</th>
<th>Theme</th>
<th>Frequency</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic preparedness</td>
<td>Lack of sound risk management processes for IT projects</td>
<td>6</td>
<td>Auditor’s Report</td>
</tr>
<tr>
<td></td>
<td>We relied on external advice</td>
<td>3</td>
<td>KCM3</td>
</tr>
<tr>
<td></td>
<td>No preparation for a political crisis</td>
<td>1</td>
<td>KCM3</td>
</tr>
<tr>
<td>Stakeholder relationship</td>
<td>Hostile media (re the Vice-Chancellor)</td>
<td>3</td>
<td>KCM3</td>
</tr>
<tr>
<td>history</td>
<td>Hostile student union</td>
<td>2</td>
<td>KCM3</td>
</tr>
<tr>
<td></td>
<td>Erosion of the relationship between the top executives and its board of management</td>
<td>9</td>
<td>Media content analysis</td>
</tr>
<tr>
<td>Crisis history</td>
<td>No documented post-mortems on previous crises</td>
<td>2</td>
<td>KCM3</td>
</tr>
</tbody>
</table>
4.5.5 **Summary**

RMIT was not prepared to confront a high-profile crisis. Its strategic processes and documents were not crisis-specific. It had no specific processes or documents related to crisis management or stakeholder analysis. Its response to the crisis was *ad hoc* and based on the external advice provided by consulting firms. The key crisis team members had no previous experience individually in high-profile crisis. The key crisis team members were trained only in crisis media as a result of the crisis itself. There was a clear misunderstanding about the crisis transformation from an event with “*technical causes only*” to a “*political*” event. The RMIT risk management plan did not take into consideration the risks (probability and impact) of implementing a project of the nature and scope of the AMS.

The RMIT had no stakeholder plan or carried out stakeholder analysis previous to the crisis. There was a clear misunderstanding of the roles and dynamics surrounding a crisis that affected the nature of a relationship between the organisation and its stakeholders. There was never an attempt, before the crisis, to maintain an ongoing relationship with the media or the Minister of Education beyond the standard practice of sending media releases when an event was taking place within the University. In the case of the higher education specialised media, we are basically talking about five people. There was a lack of understanding about the role that the media plays and its effects and influence in the second tier of key stakeholders of the University: the Education Minister and the State Government in turn.

There was no concerted effort to use the communication tools at the service of the RMIT, in particular the media releases, as a consistent instrument to convey to the public the point of view of the organisation.

The RMIT did not try to rally the support of key stakeholders because, as KCM3 indicated, this was considered “*unethical*”. In any case, there is no evidence that supports the view that if requested, these stakeholders would have supported the RMIT case. The RMIT tried to provide technical answers to political questions. As such its message never got through the media to reach its main audience: the public. The Vice-Chancellor had a number of attributes that made her a clear potential target for political attacks: she was the first woman to run a University in Victoria, she was seen as an outsider from the mainstream academic community of the University (as she was
considered an administrator by insiders) and had former adversarial members of the RMIT student union in key media places (in particular a reporter for *The Age* newspaper covering higher education issues).

The major tangible financial crisis outcome was the direct lost of $40 million. The tangible non-financial outcomes were the resignation of The Chancellor, the Vice-Chancellor and seven Council members. The reputation of all the people involved in the crisis was tarnished including the reputation of the University as a whole. Staff morale reached historically low levels.
4.6 Seafood Industry Council NZ - Case Study

“The media was only looking for a dead body ...but who would you sue...God?”
KCM4, 2005

4.6.1 Abstract

During the first week of 1993, the media reported on humans and animals getting sick after eating seashell fish. This was the first sign of the major crisis that affected the Seafood Industry of New Zealand during the following three months, costing the industry millions of dollars.

The fishing industry in New Zealand is one of the main contributors to the economy of the country. In 2005, the fishing industry in New Zealand:

- earned over $1.3 billion a year in exports
- supplied an increasing portion of New Zealand's national diet
- employed around 10,000 people.

New Zealand earned 50 times more from fisheries exports in 2005 ($1.3 billion a year) than it did in the 1970s (less than $20 million a year). As well as providing New Zealand with more income to import other products, this growth has also increased employment: not only more jobs in catching and processing fish, but also in transporting and marketing fish and providing other services to fishing companies (WEB: SeaFic).

The New Zealand Fishing Industry Board handled the 1993 crisis in conjunction with the Ministry of Agriculture and Fisheries. In 1993, there were 23 people working for the New Zealand Fishing Industry Board. In 1997, the newly created Seafood Industry Council (SeaFic) assumed most of the functions of the New Zealand Fishing Industry Board under an Agency Agreement. This changed in organisational structure was triggered by the 1993 crisis.
4.6.2 The Crisis Genesis

The crisis was triggered by reports of a number of animals (cats) and humans falling ill during the first week of January 1993, and showing typical symptoms of poisoning caused by toxic shellfish (Hallegraeff, 1993).

The crisis genesis was described in a report produced by the Primary Production Committee Report (PPC, 1993). The Committee reported that:

… [the illnesses were related to]… shellfish taken from the Whangarei harbour after the 24th of December 1992… [as a consequence] all commercial harvesting of shellfish from the area was banned. This ban involved the harvesting, movement and export of bivariate mollusks, kina, crab and rock lobster. The ban spread very rapidly to other areas of New Zealand. By the 6th of January 1993 the production ban was already extended to the whole of New Zealand.

The Fisheries Industry of New Zealand was facing the biggest crisis of its history. In less than two weeks the crisis had over-flown the national boundaries of New Zealand. By the 8th of January 1993 the United States Food and Drug Administration (USFDA) banned the import of New Zealand bivalve mollusks (PPC, 1993:21). The international news Agency “Xinhua General Overseas News Service” picked up the story and was going to report very closely on its international development. It reported with the headline of “Toxic seafood crisis spreads in New Zealand” on 12 January that the ban was going to cost $NZ16 million and that more than 100 people were reported ill (MS: Xinhua Agency, 12/1/1993). In Australia, the Hobart Mercury newspaper reported on the same day with the matter-of-fact headline “New Zealand mollusks banned. An algal bloom has left shellfish from some New Zealand areas toxic” and indicated that scientists had not yet identified the toxin (MS: Hobart Mercury, 12/1/1993).
But the New Zealand market of seafood domestically had been largely unscathed. This was going to change very soon. On 14 January 2003, the Xinhua Agency reported that the government extended the ban on harvesting to cover the entire east coast of the North Island and that traces of the toxin were identified (MS: Xinhua Agency, 14/1/1993).

Japan, one of the main world importers of seafood, joined the ban on 16 January. Two out of three major markets of New Zealand seafood had closed their doors (MS: Xinhua Agency, 16/1/1993), Australia, the third one, was going to follow soon.

By 22 January, the New Zealand authorities had to face the extent of the crisis and its implications on the overall health of the population and advised that New Zealand’s entire coastline was off limits for collecting and eating shellfish (PPC, 1993:21).

The New Zealand authorities recognised its scientific limitations and by 27 January made a call for help to the international scientific community (MS: Xinhua Agency, 27/1/1993).

The New Zealand Seafood Industry had to shut down. The industry started to lose $2 million a week and thousands of people lost their jobs temporarily. Political parties, the media and the public began asking themselves how something of this national magnitude could happen without the Ministry of Agriculture and Fisheries and the New Zealand Fishing Industry Board becoming aware of it.

The political pressure on the authorities grew very rapidly. An ad hoc cabinet committee to oversee the crisis at the highest level of the political administration of the New Zealand Prime Minister Jim Bolger was formed on the first day of February (MS: Xinhua Agency, 1/2/1993).

The New Zealand ban was having a strong impact on seafood prices worldwide. In Australia the ban applied to Queensland, where 97 per cent of mussels and up to 70 per cent of oysters sold are imported from New Zealand (MS: Sunday Mail, 14/2/1993).
A second toxin \((PPC, 1993:21)\) was found on 4 February and a third was identified on 23 February \((MS: Xinhua Agency, 26/2/1993)\).

The scientists wanted to know the causes of the shellfish toxin poisoning; the public, the media and the Government wanted to identify the culprit of the crisis.

A crisis breakthrough came at the end of February 1993 when New Zealand scientists with assistance from European counterparts found that the test recommended by the US Food and Drugs Administration for the detection of paralytic shellfish poisoning (PSP) was flawed and was returning false positives. The PPC report said that these false readings were later disregarded as having no significance for human health \((PPC, 1993:24)\). The United States lifted its ban on imports on 11 March.

Between 17 March and the end of April the newspapers reported a gradual lifting of the harvesting shellfish ban in most of the country with the exception of some isolated parts of the North Island. The Japanese importing seafood ban remained in place until 21 April 1993 \((PPC, 1993:22)\). The Japanese action heralded the end of the New Zealand seafood crisis.

### 4.6.3 Seafood Industry Crisis Evaluation

The interviewee is refereed as key crisis member 4 (KCM4).

#### 4.6.3.1 Strategic Preparedness

**QA** What type of *strategic preparedness* did the organisation have in place previous to the high-profile crisis (strategic preparedness dimension)?

The wholesale seafood industry is not considered by the American Institute for Crisis Management (ICM) as a crisis-prone industry. In fact the ICM annual reports from 1994 to 2005 indicate that no one single primary wholesale food industry producer has been on their ten or more crisis-prone industries’ list. \((WEB: ICM)\). However, *product recalls* as a type of crisis, were very common. In 2005, 6 per cent of the crises were caused by product defects and recalls \((ICM 2005)\), having peak at 15 per cent in 2001 \((ICM 2001)\). The product recalls crises affected, in particular, the retail food
industry (supermarkets). In Australia and New Zealand in 2005 wrong labelling was cited as the main reason food products were pulled off supermarkets. The statistics provided by the Food Standards Australia and New Zealand (FSANZ) annual report 2006 also showed that 66 products were recalled in the last financial year, the same number as in 2004 (WEB: FSANZ). See more on the product recall literature in the Pan Pharmaceuticals high-profile crisis analysis.

4.6.3.1.1 Processes and Documents

The New Zealand Fishing Industry Board had general planning and strategic documents but nothing specific to identify and deal with risk issues (the risk management approach concept was hardly known by the industry at the time) nor related to the management of crisis in particular. KCM4 said: “we used a template of response that the Minister of Agriculture had available for the foot and mouth disease and it was adapted for application in this circumstance”. KCM4 added that “… we had a generalised crisis plan, which was to limit the involvement of the planning process and the media contact to a particularly tight group of people, with a mandate from our Board to act in that fashion”.

4.6.3.1.2 Training

KCM4: “… no issues or crisis management experience and the board members had… no crisis management training”.

The crisis team was formed by members of the New Zealand Fishing Industry Board and the Ministry of Agriculture and Fisheries. Some members of the crisis team coming from the Ministry had some moderate training in crisis communication. KCM4 said that the spokesperson of the team had no training in spokesperson skills. No members of the crisis team received related training during the crisis. The only thing they had as a group was summarised by KCM4 as: “… just a crisis-response approach”.

4.6.3.1.3 External Advice

The lack of crisis preparation and training was filled with external advice. KCM4 explained:
… we used external advice. We sought independent advice. We received advice frequently. We received legal and financial advice. We took all the advice [and incorporated it] all the time. The advice was as good as you could have expected. It is hard to make a judgment on that but it was as good as we could get… in particular the legal advice was very good. There was no conflict [between different sources of advice] ever. We elicited support from the Government.

4.6.3.2 Stakeholder Relationship

QB What was the status of the relationships between the organisation and its main stakeholders before and after the high-profile crisis (stakeholders’ history dimension)?

The main stakeholders were: the wholesale seafood producers, the Government, the local, national and international media, the public, the USFDA (as a “de facto regulator of the seafood international exporting trade”) and the three major importing countries of New Zealand seafood: the USA, Japan and Australia.

KCM4 was of the view that the New Zealand Fishing Industry Board and the Ministry of Agriculture and Fisheries had gone from good to excellent relationships with their main stakeholders:

“… we had a good relationship with our shareholders and members of the board… excellent relationships – before and after the crisis. With producers we had a business-like relationship before, and better relationships during and after [the crisis].

Local Media – we did not have a particularly close relationship with the media before the event and during the event. At the end the media relationship was good. At the beginning the media was looking for a dead body [but] we kept the media on side. The regional government was barely involved. The national government was absolutely involved. The relationship was very good throughout. Regulators – good relationships. NGOs were not involved.

However KCM4 said that they did not have a stakeholder plan or specific activities aimed at improving relationships with their main stakeholders.
4.6.3.2.1 Media

KCM4: “We had daily briefings [for the media] … we managed the media jointly with officials and we had regular planned media contact on a daily basis”.

KCM4 made a fair assessment of the media reporting as overall well balanced and neither too aggressive to the New Zealand Fishing Industry Board nor to the Ministry of Agriculture and Fisheries. KCM4 argued that in their dealings with the media: “… we pleaded ignorance in the sense that we had an unknown event. It was an honest confession of this problem. We were using the USA test and in the end this test was refuted”. The Seafood Industry was judged generally by the media and by the public as victim of this crisis. Studies conducted by Lee (2004) conclude that “…consumers base their evaluation on how the crisis was managed on their (a) judgment of organisational responsibility for the crisis, (b) impression of the organisation, (c) sympathy toward the organisation, and (d) trust in the organisation”. Guilt attribution is paramount to get a more sympathetic media coverage. The Seafood Industry was successful in impressing this “victim” status on the media. Out of 25 international and media articles identified about the crisis, all were classified by our media content analysis as factual.

4.6.3.2.2 USFDA (American Imports Regulator)

The Seafood Industry crisis was singular in relation to the other three crises analysed previously, because the main source of tension came from an outside “de facto” regulator: the USFDA. The PPC report found that the relationships between the Ministry of Agriculture and Fisheries and the USFDA were probably strained as the American regulator had identified deficiencies in the New Zealand marine laboratories and had delayed their certification. But the Ministry at the enquiry said they saw no reason to believe that this was the case as the USFDA indicated areas of concern but no serious problems and the Ministry had acted on these (PPC, 1993:23).

However, for some unknown reason the PPC did not expand on this issue by questioning why the Ministry monitoring program was not able to detect the high-level shellfish toxins from April to December 1992. KCM4 accepted: “… having frankly a completely inadequate system of monitoring”. This system of monitoring was not good enough to find toxins at a national scale.
KCM4 argued:

… we were caught with a methodological (testing procedures) of series of false positives (results) that indicated that we were having a more serious problem than we had anticipated and we had not the capacity to sample initially the entire coast of the North Island of New Zealand with other than the established monitoring program, which had gone through a variety of adaptations during the time, but a comprehensive monitoring program… from time to time, we found localised shellfish toxins events.

In any case the relationship between the crisis team and the USFDA was strained when New Zealand put in doubt the results of the USFDA tests and sought assistance from overseas scientists other than the Americans. KCM4 said: “The conclusion was that we realised we were not having a nationwide problem but a problem with our sampling technique and the sample technique that the FDA was trying to use globally ended up being rejected.

The New Zealand tests findings undermined the USFDA international reputation as the USFDA was recognised at the time as the leading agency for marine biotoxin control and its approval was seen as a pre-requisite to be able to export seafood products around the globe. KCM4 added:

Eventually, we pushed very hard for independent scientific advice largely to respond to the fact that the industry and the government were required to use non-standard sampling methodology. So we immediately sought independent advice outside United States, because the USA was an interested party and we went to the European Union and we sought independent advice. The best advice we could get at the time came from...UK and that started to undo the technical advice coming from USA and this was done at high levels at the realm of the experts. We were responsible for introducing that contestability of advice which ultimately discredited the US system. In the end, we had to take it, and we were supported by the Government view that we had to be in a position where we could not be held by a methodology that was giving false positives.
4.6.3.2.3 International Customers

The crisis team did not perform well in relation to the major international customers of New Zealand, as the Japanese lifting on the seafood ban took more than what was necessary. The PPC report was critical of the Ministry of Agriculture and Fisheries because they did not develop direct communication channels with overseas markets such as Japan (PPC, 1993:25-26).

Finally, the domestic public lost confidence in the consumption of seafood. KCM4 expanded on this issue:

… People were extremely understanding that we had an event difficult to handle. People reacted very cautiously. In terms of public confidence, (the public confidence) took a hit. The public confidence in general. The consumption of seafood and all domestic sales of fish, went down for a period, but they also recovered. Within 12 months the business was back to normal in income.

KCM4 added: “We spent a lot of money on promotion, $1 million at 1993 value. This was the direct cost associated with trying to restore public confidence after the crisis”.

4.6.3.2.4 Local Producers

KCM4 argued:
There was nothing to apologise for. No compensation paid. The victims were (not very) ill and they were taken care of. There was nothing to apologise for because this was a natural event. It was not an event where you can place liability. We talked directly to the stakeholders… Faxes and phone calls.

4.6.3.3 Crisis History

QC What lessons did the organisation learn from previous high-profile events within their own organisation, the industry or within the general field of crisis management (crisis history dimension)?
The Seafood Industry of New Zealand had not experienced a crisis of this magnitude ever. The organisation did not try to prepare for a crisis by learning lessons from other crises which took place in similar industries nor from other industries. KCM4 said: “The reason it had become a crisis… because we had not had such an event before and having frankly a completely inadequate system of monitoring”. But in 1993 there were not that many organisations in the world which had considered learning from previous crises events.

The decisive banning of harvesting and consumption of shellfish carried out by the Seafood Industry protected its reputation. This decision was consistent with the crisis literature. For instance, Deephouse (2000) sees the media reputation as a strategic asset that has to be protected as a source of competitive advantage. On 5 July 2006, the New Zealand health authorities imposed another ban on gathering shellfish. The shellfish ban was extended to include the west coast due to high levels of toxins (MS: Waikato Times 5/7/2006). The ban was imposed at the beginning of June 2006 and lasted until August 2006. And this time the New Zealand authorities had plenty of previous crisis management experiences to draw on.

4.6.3.4 Crisis Outcomes

QD What were the types and impact of crisis outcomes (tangible and intangible) produced by this event, from the point of view of the interviewees and the media?

4.6.3.4.1 Tangible Outcomes

4.6.3.4.1.1 Financial

- KCM4 estimated the promotional costs to restore the confidence of the public on the consumption of seafood as $1 million.

- For that period of three months there was no export trade, nor domestic sales.

- According to KCM4 the export interruption of revenue (as people just stopped harvesting the shellfish temporarily) was estimated at $2 million a week. Income figure that was not received for a period of 15 weeks (totalizing $30 million).
But KCM4 said that most of this revenue was recovered within 12 months. KCM4 added

The total cost… is extremely hard to estimate, there was a temporary interruption of earnings of around $20 to 30 million but that was made back by over the course of the following year… to my knowledge no businesses went out of business, there were no business collapses as a result of this event.

- The crisis affected the price of seafood around the globe in particular from New Zealand’s three main import clients: USA, Australia and Japan.

4.6.3.4..2 Non-financial

- A parliamentary Selected Committee enquiry was set up in March 1993 to analyse the causes of the crisis and the decision-making process of the Ministry of Agriculture and Fisheries. The enquiry presented its findings to Parliament in June 1993.

- According to KCM4: “There were no civil litigation processes. It would not be possible because of the accident compensation regulations in New Zealand… Not for economic losses… But who would you sue…God?”

- The crisis affected part of the organisation. For a period the crisis team spent 100 per cent of their time, for about six weeks, 18 hours a day, managing the crisis.

- More than 180 reported human shellfish poisonings (Hallegraeff, 1993).

- More than 9,000 people lost their jobs temporarily.

- Hundred of businesses associated with the wholesale production and distribution of seafood had to close their doors temporarily.

- The relationship between New Zealand authorities and the USFDA was strained for many years as a result of the rejection of the toxins test proposed by the American regulator.
• The trading relationship with Japan was at low levels, longer than necessary as a consequence of what the selected committee identified as “the lack of guidelines setting out appropriate levels of communication with overseas customers”.

4.6.3.4.2 Non-tangible Outcomes

4.6.3.4.2.1 Reputation

• KCM4 said that, “… the reputation was enhanced because of the nature of the event. People were extremely understanding that we had an event difficult to handle”.

4.6.3.4.2.2 Staff Morale

• KCM4 said: “… staff morale was low at the beginning but it was ok by the end”.

4.6.4 Emergent Themes

Table 4.G: Seafood Industry Emergent Themes

<table>
<thead>
<tr>
<th>Category</th>
<th>Theme</th>
<th>Frequency</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic preparedness</td>
<td>We adapted a crisis template from the foot and mouth cows’ disease</td>
<td>2</td>
<td>KCM4</td>
</tr>
<tr>
<td></td>
<td>We relied on external advice</td>
<td>2</td>
<td>KCM4</td>
</tr>
<tr>
<td></td>
<td>No preparation for any type of crisis</td>
<td>3</td>
<td>KCM4</td>
</tr>
<tr>
<td></td>
<td>No Risk Management Plan</td>
<td>1</td>
<td>KCM4</td>
</tr>
<tr>
<td></td>
<td>Inadequate system of monitoring (toxins)</td>
<td>1</td>
<td>KCM4</td>
</tr>
<tr>
<td>Stakeholder relationship</td>
<td>Hostile regulator USFDA</td>
<td>6</td>
<td>KCM4</td>
</tr>
<tr>
<td>history</td>
<td>No compensation paid</td>
<td>2</td>
<td>KCM4</td>
</tr>
<tr>
<td>Crisis history</td>
<td>No apologies to the local producers or the public</td>
<td>2</td>
<td>KCM4</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------</td>
<td>----</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>We did not have such an event before.</td>
<td>2</td>
<td>KCM4</td>
</tr>
<tr>
<td></td>
<td>No analyses of other crises</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.6.5 Summary

The New Zealand Fishing Industry Board was not prepared at all to confront a crisis of this nature. The strategic preparedness was just related to the “borrowing” of a crisis template from the Ministry of Agriculture and Fisheries to deal with a potential outbreak of “foot and mouth disease”. This template was adapted to suit the shellfish-poisoning crisis. The members of the crisis team did not receive crisis-related training, although KCM4 argued that some members of the Ministry were high-level public servants who may have received this type of training. But the gaps in skills were covered with external advice. There were no risk management assessments of this industry. The monitoring system in place to evaluate the quality and health of seafood products was according to KCM4 “frankly inadequate”. The USFDA had identified this as a problem in an audit forwarded to the Ministry of Agriculture and Fisheries in August 1992. However, no substantial activities to correct this problem were implemented between August and December 1992.

As an industry association, the New Zealand Fishing Industry Board’s main activities were aimed at developing and maintaining good relationships with the seafood producers, the board’s main stakeholders. This seems to have helped the New Zealand Fishing Industry Board to develop a good reputation among its members. The international, national and local media were not very critical of the fact that neither the New Zealand Fishing Industry Board nor the Ministry of Agriculture and Fisheries had an adequate anti-toxin monitoring program in place. The fact that the media perceived and reported accordingly, that the shellfish poisoning was a “natural” event, helped to create the public image of the New Zealand Fishing Industry Board as a “victim” and not as a “culprit”. The New Zealand legal compensation statutory limitations helped the board to deflect potential compensation litigation cases. KCM4 responded to the compensation question: “… but whom would you sue… God?”
The parliament-selected committee enquiry had very limited powers and heard evidence only from New Zealand public servants involved in the crisis. The relations with the USFDA were strained as the rejection of the toxin test undermined the international credibility of this American organisation. The lack of preparation in relation to the New Zealand Fishing Industry Board with its major international customers (USA, Australia and Japan), affected the resumption of trading with Japan, a country which lifted its trade embargo five weeks after the USA. The New Zealand Fishing Industry Board lost the confidence of the public in consuming domestic seafood products but this was restored according to KCM4, within 12 months of the crisis event.

The New Zealand Fishing Industry Board had not experienced a high-profile crisis before. In fact this crisis helped the newly created Seafood Industry Council to better manage the negative outcomes produced by the SARS crisis in early 2003. The New Zealand Fishing Industry Board had not analysed or discussed other similar crises officially before the shellfish poisoning event. However, some members of the Ministry of Agriculture and Fisheries were aware of the problems created by the foot and mouth disease and the crisis team relied strongly on advice from external firms.

Both KCM4 and the media assessment coincided on the point that the Seafood Industry recovered its reputation and financial losses within 12 months of the crisis. In fact the financial earnings coming from the seafood exports increased substantially by 1994. The initial financial revenue losses of $30 million were recovered by the end of 1994. However, there were ad hoc expenses of $1 million to restore public confidence in the domestic seafood market and unquantified financial losses related to the external scientific, legal and crisis management advice received by the crisis team during the crisis.

There is no doubt that the New Zealand Fishing Industry Board had a set of random circumstances that assisted it to manage the crisis successfully. The virtue of the board in managing this crisis was to capitalise on some image opportunities. For instance, siding with the media and maintaining the line that this was a “natural” event and avoiding issues related to a lack of monitoring responsibilities and the potential need for compensations payments. Probably the best strategic move of the Ministry of Agriculture and Fisheries and the New Zealand Fishing Industry Board was clearly captured by the Select Committee Report in the following paragraph:
The ministry was satisfied that its response to the outbreak of toxic algal bloom was such that no illness had been reported overseas that might be attributed to contaminated product being sold before the problem was identified. This view was also supported by industry representatives appearing before the committee who stated that the ban was necessary to protect the credibility of the industry.¹

The crisis team’s best management asset was that it had a profound understanding of the value of its international trade reputation and credibility. It is interesting to note that recent studies have reached controversial findings in relation to the consumption of toxins. The American Association for the Advancement of Science found that

… the benefits of eating a high-fish diet are so significant they may even outweigh the risks of consuming seafood contaminated by low levels of chemicals, heavy metals and other pollutants. The finding lends weight to claims by some experts that dietary guidelines do not recommend enough fish, in part due to concern about possible risks of contamination.

But other studies from Charles University found evidence of the opposite:

“… eating seafood containing toxic substances can have serious neurological as well as gastrointestinal effects. Geoffrey Isbister and colleagues concluded after reviewing data on the neurological syndromes associated with the ingestion of common marine toxins” (MS: The Hidustani Times, 21/5/2005).

There is still no clear evidence on when to impose a seafood ban to avoid putting at risk human lives. This type of information was, however, non-existent in 1993. The prompt and decisive action of the Seafood Industry to ban the export of seafood would be today deemed as the best practice strategy under the same crisis circumstances.
4.7 Multiple Cross-Case Studies

4.7.1 Emerging Themes – Content Analysis

Content analysis is, according to Kassarjian (1977), “… a scientific, objective, systematic quantitative and generalisable description of communication content”. Kolbe and Burnett (1991) define content analysis as “… an observational research method that is used to systematically evaluate the symbolic content of all forms of recorded communication. Kassarjian says that content analysis relies on the identification of themes. A theme is a qualitative unit of analysis represented by sentences with particular meanings.

A number of emerging themes arose from the information provided by the interviewees and other secondary information. We codified only the specific information sought by our research project as suggested by Jauch et al. (1980). We collated and analysed this information to place the core themes into categories, having as a frame of reference our qualitative research questions. The categories reflect, according to Kassarjian (1977), the formulated thinking and the purpose of the study and he adds that the categories are the conceptual scheme of the research design. The categories and the research questions were derived themselves from our main research question and we compared them across the four organisations studied. A set of independent and dependent variables were identified for our quantitative study.

4.7.2 Research Questions Analysis

QA What type of strategic preparedness did the organisation have in place previous to the high-profile crisis (strategic preparedness dimension)?

Table 4.H: Cross Studies Crisis Preparedness

<table>
<thead>
<tr>
<th>Categories</th>
<th>PP</th>
<th>ESSO</th>
<th>RMIT</th>
<th>SF</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic general</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term planning</td>
<td>NP</td>
<td>H</td>
<td>M</td>
<td>NP</td>
<td>RMIT used it as a reference only</td>
</tr>
<tr>
<td>Long-term planning</td>
<td>NP</td>
<td>H</td>
<td>M</td>
<td>NP</td>
<td>RMIT used it as a reference only</td>
</tr>
<tr>
<td>Code of Conduct</td>
<td>NP</td>
<td>NP</td>
<td>L</td>
<td>NP</td>
<td></td>
</tr>
</tbody>
</table>
### Crisis prevention

<table>
<thead>
<tr>
<th>Risk management</th>
<th>L</th>
<th>H</th>
<th>M</th>
<th>NP</th>
<th>RMIT had a RM in place but it was not specific to the IT project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issues management</td>
<td>NP</td>
<td>M</td>
<td>L</td>
<td>NP</td>
<td></td>
</tr>
<tr>
<td>Reputation management</td>
<td>NP</td>
<td>NP</td>
<td>NP</td>
<td>NP</td>
<td></td>
</tr>
</tbody>
</table>

### Crisis management

<table>
<thead>
<tr>
<th>Crisis communication</th>
<th>NP</th>
<th>H</th>
<th>L</th>
<th>NP</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis management</td>
<td>NP</td>
<td>H</td>
<td>NP</td>
<td>NP</td>
<td>CM was not considered a priority for most of the organisations</td>
</tr>
<tr>
<td>Training in crisis management</td>
<td>NP</td>
<td>H</td>
<td>NP</td>
<td>NP</td>
<td></td>
</tr>
</tbody>
</table>

PP = Pan Pharmaceuticals   Esso = Esso   RMIT   SF = Seafood Industries
Critical Ratings: L = Low, M = Medium, H = High, NP = No Priority

Esso was the only pro-active organisation that had crisis preparedness strategies in place. The rest of the organisations neither prepare for a high-profile crisis nor for the possibility of avoiding one by setting up rigorous risk management processes. Apart from Esso, the remaining organisations reacted to their respective crises *ad hoc*. But even Esso reacted *ad hoc* when dealing with the union and the proceedings of the Royal Commission.

**Table 4.1: Cross Studies Recurrent Themes**

<table>
<thead>
<tr>
<th>Recurrent Themes</th>
<th>PP</th>
<th>ESSO</th>
<th>RMIT</th>
<th>SF</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic general</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processes more relevant than documents</td>
<td>N/O</td>
<td>N</td>
<td>N/O</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td><strong>Crisis management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisis management as a separate process to risk management</td>
<td>N/O</td>
<td>Y</td>
<td>Y</td>
<td>N/O</td>
<td></td>
</tr>
</tbody>
</table>

PP = Pan Pharmaceuticals   Esso = Esso   RMIT   SF = Seafood Industries
Critical Ratings: N/O = No Opinion, Y = yes, N = no

Two of the organisations did not even consider the question of comparing processes versus documents – crisis preparation (including training) was not in their
management “radar”. For Esso a documented process was an essential requisite of the risk management and crisis preparedness processes. For Seafood Industry, the process was more relevant as the organisation had not prepared itself in any way to confront a crisis. However, the Seafood Industry was flexible enough to adapt other crisis preparation plans to manage its own crisis. Esso and the RMIT saw the risk management and crisis management processes as two different but interconnected processes. Esso had this distinction clearly identified in the organisation planning activities. However, the RMIT failed to develop a sound risk management process and to prepare for a crisis.

QB What was the status of the relationship between the organisation and its main stakeholders’ before and after the high-profile crisis (stakeholders’ history dimension)?

Table 4.J: Cross Studies Stakeholder Analysis

<table>
<thead>
<tr>
<th>Categories</th>
<th>PP</th>
<th>ESSO</th>
<th>RMIT</th>
<th>SF</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crisis prevention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholder Plan</td>
<td>NP</td>
<td>M</td>
<td>NP</td>
<td>L</td>
<td>SF had a loose and <em>ad hoc</em> relationship with the seafood producers and a tense relationship with the FDA</td>
</tr>
<tr>
<td><strong>Investment in stakeholder</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>relationships</td>
</tr>
<tr>
<td><strong>relationships</strong></td>
<td>NP</td>
<td>L</td>
<td>NP</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td><strong>Critical stakeholder relationships</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between the board members and the CEO</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>The quality of the relationship between the board members and the CEO deteriorated rapidly</td>
</tr>
<tr>
<td>Between the organisation and the union (staff)</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td>The union used the crisis as a bargain point to advance its industrial relations agenda</td>
</tr>
<tr>
<td>Between the organisation and the union</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>The student union</td>
</tr>
<tr>
<td>(student)</td>
<td></td>
<td></td>
<td>attacked the RMIT administration for the perceived lack of action to overcome the crisis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between the organisation and the staff members</td>
<td>√</td>
<td>√</td>
<td>The staff members experienced uncertainty and job insecurity as a consequence of the crisis.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between the organisation and the regulators</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>The regulators played key roles in all the crises. The USA FDA (Foods and Drugs Administration) became the “de facto” regulator of the SF crisis (without its approval the importation ban could not have been lifted).</td>
</tr>
<tr>
<td>Between the organisation and the media</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>The media reporting played key roles in all the crises</td>
</tr>
<tr>
<td>Between the organisation and the local community (location of the crisis)</td>
<td>√</td>
<td></td>
<td></td>
<td>√</td>
<td>Esso’s good relationship with the local community at Longford and Seafood Industry with the local producers were key in overcoming the initial phases of their respective crises</td>
</tr>
<tr>
<td>Between the organisation and their respective clients/consumers</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>The relationship between the organisations and their respective clients were the key to understanding the crisis evolution</td>
</tr>
</tbody>
</table>
In general terms, our answers to this question, based on the evidence gathered and analysed, were that the relationships between all the organisations and their key stakeholders deteriorated rapidly during their respective crises from their respective levels before their crises, in particular, the internal relationships between the board of management and the executives of the organisation (Pan, RMIT), between the executives and union (Esso and the RMIT). The external key stakeholder relationships were also substantially affected, for instance between the executive and the regulators (Pan, Esso, the RMIT and Seafood Industry), and the executives and the media (Esso, Pan and the RMIT). The media reporting was compared between the organisations in search of evidence of a “hostile media effect”. For instance, the member of the crisis team of the RMIT interviewed, put a strong emphasis on this issue. Its counterpart from Esso perceived that the first phase of the crisis produced a positive reporting on their efforts to manage the crisis and that this reporting was a direct consequence of their crisis-preparation activities. It is important to note that as the Esso and the RMIT crises were seen as “crises within a particular state boundary” there were more articles at state level than at national level. However, Pan Pharmaceutical’s crisis was seen as a national and international crisis and as such there were an even greater number of articles between the state, the national and the international media. The use of percentages allowed statistical comparisons between these crises.

Based on this media content analysis we concluded that there is enough evidence to support RMIT’s perception of a “hostile media effect” in particular at the state level (51 per cent) compared to the media coverage of the Esso crisis (35 per cent) and Pan’s crisis (41 per cent). The evidence gathered and analysed pointed to a biased media reporting towards the RMIT. Esso’s negative media coverage in Australia during the first phase of the crisis was 33 per cent.
Table 4.K: Negative Media Coverage Analysis

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Local *</th>
<th>State</th>
<th>National</th>
<th>Total Media Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan</td>
<td>43 %</td>
<td>45 %</td>
<td>64 %</td>
<td>48 %</td>
</tr>
<tr>
<td>Esso</td>
<td>0 %</td>
<td>35 %</td>
<td>41 %</td>
<td>37 %</td>
</tr>
<tr>
<td>RMIT</td>
<td>6 %</td>
<td>51 %</td>
<td>33 %</td>
<td>36 %t</td>
</tr>
</tbody>
</table>

Highest Negative coverage: Pan, RMIT, Pan, Pan

Note: State = region NZ

The local coverage of the Esso crisis was minimal.

This percentage compared very favorably against the total Australian media coverage of 48 per cent (Pan), 37 per cent (total of Esso’s three crisis phases) and 36 per cent (RMIT). It is reasonable to conclude that Esso’s crisis preparedness activities paid off in relation to the media coverage of the first phase of the crisis. It is important to note that no articles of Esso’s crisis were identified at local media level. By far the most negative reporting was aimed at Pan Pharmaceuticals. Pan had the worst local negative reporting percentage at 43 per cent, very high state reporting at 45 per cent, the highest negative reporting at 64 per cent and the worst total media reporting in Australia at 48 per cent. It is easy to understand Pan’s demise based on this reporting.

QC What lessons did the organisation learn from previous high-profile events within their own organisation, the industry or within the general field of crisis management (crisis history dimension)?

Esso was the only organisation that analysed to some extent previous crises external to the organisation, to prepare for a crisis event. Pan, RMIT and Seafood Industry did not consider this crisis preparation process at all. Interestingly enough, this analysis was not properly conducted by Esso as it omitted previous internal crisis events. This key crisis preparedness practice has not been followed by Esso since the conclusion of the Longford crisis. Esso had not conducted a proper post-mortem analysis of the Longford explosion at the time of interviewing the member of the crisis team.
**Table 4.L: Cross Studies Crisis History Analysis**

<table>
<thead>
<tr>
<th>Categories</th>
<th>PP</th>
<th>ESSO</th>
<th>RMIT</th>
<th>SF</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lessons learned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal crisis</td>
<td>NP</td>
<td>L</td>
<td>NP</td>
<td>NP</td>
<td>Esso and Pan failed to incorporate lessons from previous internal crises such as the critical factor to prepare for award negotiations during a crisis event or for a public enquiry.</td>
</tr>
<tr>
<td>analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External crisis</td>
<td>NP</td>
<td>M</td>
<td>NP</td>
<td>NP</td>
<td>Esso did incorporate some lessons from previous crises external to the organisation, but did not prepare for award negotiations during a crisis event or for a public enquiry.</td>
</tr>
<tr>
<td>analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**QD** What were the types and impact of crisis outcomes (tangible and intangible) produced by this event, from the point of view of the interviewees and the media?

**Table 4.M: Cross Studies Crisis Outcomes Analysis**

<table>
<thead>
<tr>
<th>Categories</th>
<th>PP</th>
<th>ESSO</th>
<th>RMIT</th>
<th>SF</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tangible</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct financial costs</td>
<td>500+</td>
<td>300+</td>
<td>40+</td>
<td>4+</td>
<td>PP ceased to operate</td>
</tr>
<tr>
<td>(millions of Aust. dollars)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share price</td>
<td>0</td>
<td>+2-3%</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Profit</td>
<td>0</td>
<td>-36%</td>
<td>N/A</td>
<td>N/A</td>
<td>Esso’s total profit losses were calculated at $1</td>
</tr>
</tbody>
</table>


The four organisations analysed had direct financial losses of more than $804 million Australian and losses in revenues of $A643 million. Pan had nil profits by June 2003 and Esso had 36 per cent dropped profits by December 1998. The RMIT had a revenue shortfall of approximately $40 million. Seafood Industry lost $30 million in revenue but recovered them and increases them by $3 million by the end of June 1993.
All of the organisations experienced in one form or another, tangible and non-tangible outcomes.

4.7.3 Content Analysis

The four organisations analysed had different levels of awareness of crisis preparedness. Esso was well prepared for a specific type of crisis derived from an “oil spill or an accident scenario”. But it was ill-prepared for a crisis derived from negotiating with the union under a crisis situation or from intense scrutiny coming from a Royal Commission. The RMIT had long- and short-term plans and risk management processes but nothing specific to deal with a potential crisis triggered by the information technology project. Pan Pharmaceuticals was not crisis-prepared at all despite belonging to a crisis-prone industry and with a past of crises that would qualify the organisation itself as a crisis-prone company. Seafood Industry was not prepared at all for a crisis event, but had the advantage of having access to people with skills and experience (from the Ministry of Agriculture and Fisheries) which advised on crisis strategies prepared by other organisations to deal with similar types of crises.

Apart from Esso, the lack of training and experience of the board members and the CEOs on crisis management was striking. This lack of board experience worked against the Vice-Chancellor of the RMIT as her excellent relationship with the board members (executive council) and the State Government crumbled under the pressure generated by the crisis.

The lack of management or mismanagement of stakeholder relationships was also surprising. Esso was the only organisation which conducted specific and regular activities to enhance its stakeholder relationships. Pan, the RMIT and Seafood Industry did it on an ad hoc basis. Esso and Seafood Industry had a clear strategy in relation to the media. The RMIT and Pan were only reacting to it. Esso and Seafood Industry conveyed a consistent message to the media. For instance, Esso’s initial portrayal of the explosion at Longford as an accident was taken by the media without hesitation during the first eight days of the crisis. Seafood Industry managed to portray themselves during the crisis as “victims”. The careful planning at Esso was the key to achieve this positioning within the media. Seafood Industry had the benefit of an underdeveloped media industry in New Zealand which did not scrutinise the crisis close enough. As the
seafood producer’s regulator, Seafood Industry had the responsibility to monitor the quality of the harvested seafood but lacked proper monitoring mechanisms to do it. This point was largely ignored by the media.

Consultants were called in all the crises to fix “the problem”. The lack of crisis preparedness put in disadvantage the RMIT and Pan as they had to choose the best crisis advice among many service providers in a very short time. Pan fared better in choosing its advisers than the RMIT because Pan’s acting CEO had previous crisis experience. But in the end, this crisis experience did not make any substantial difference. Both CEOs lost their jobs.

In all the crises the quality and maintenance of the relationship between the board and senior management was very important. The infighting which developed between the board and the CEO within both the RMIT and Pan sealed the fate of a number of senior managers and the members of the board itself. The deterioration of the relationships among the top executives had two negative impacts: to distract the CEOs from managing the crisis in order to manage their relationship with the board, and having the board attempting to micromanage the crisis directly.

The role of the union (staff) and individual staff members was also very critical. Esso paid $200 hundred million to the union to re-construct the plant because it did not have in place awards under crisis conditions. The crisis of the RMIT was amplified by the attacks of the media (The Age in particular), staff and the student union(s) towards the RMIT Vice-Chancellor.

However, despite all its crisis preparedness strategies, Esso also failed to learn from previous crises. For instance Esso had not carried out a formal post-mortem of the Longford explosion. Pan’s attitude towards learning from the past reached the point of “negligence” after all the problems the organisation and the CEO had had in the past with the law and the regulator (TGA).

4.7.3.1 Strategic Preparedness
4.7.3.1.1 Plans and Processes for Crisis Management

Esso was the organisation that best managed one type of crisis: accidents. Esso followed best practice strategies in crisis management appropriate to this type of crisis. However, it was ill-prepared to deal with the union under crisis situations and to
confront a Royal Commission of enquiry. Seafood Industry had also reasonably good crisis outcomes but these were a byproduct of a weak media monitoring environment and having the full support of an umbrella organisation which was crisis prepared.

4.7.3.1.2 Plans and Processes for Issues and Risk Management

Pan Pharmaceuticals and the RMIT failed to identify the issues and projects associated with high risks. A proper risk management analysis would have prevented both crises. This was not the case of the Esso and Seafood Industry crises which were triggered by a combination of complex internal and external factors difficult to avoid.

4.7.3.1.3 Crisis Training of the Crisis Team and the Crisis Leader

Esso’s staff had a well-trained crisis leader and team. It had the best crisis outcomes in terms of reputation in relation to its first crisis. None of the other organisations had a crisis-training plan or activities worthy of consideration.

4.7.3.1.4 Crisis Training for the Members of the Board and the CEO

The crisis event, in three out the four cases (Esso, RMIT and Pan), could have been managed better if both their respective boards of management and their CEOs had known their roles in a crisis situation and how to manage potential sources of tension resulting from these crises.

4.7.3.1.5 External Advice-Roles and Services and Engagement Before the Crisis

The role of external consultants seemed to be critical to manage the crisis successfully. The timing of the engagement of consultants is a worthwhile independent variable to consider in future crisis management studies.

4.7.3.2 Stakeholder Relationships

4.7.3.2.1 Board of Management and the CEO

The tensions which developed between the board and the CEO seemed to have aggravated the crisis event in the case of Pan Pharmaceuticals and the RMIT. The board of management actions undermined the crisis management in two ways:
• by requesting constant information from the crisis team (including the CEOs), this created an unnecessary distraction that took the focus of the crisis team from the crisis itself to manage the relationship with the board of their respective organisations.

• by trying to micro-manage the crisis when they perceived the reputation of the organisation and/or their own were compromised.

The board reaction was consistent with the statistical information captured in our survey where 75.5 per cent of our respondents reported a continuous or more than usual report of information from the board.

4.7.3.2.2 The Regulators

Although all the interviewees accepted the premise that the relationships between the organisations and the regulators were essential, none had a clear strategy to maintain or improve these relationships. Even Esso was very limited in its stakeholder management approach. None of the organisations did well on this issue.

4.7.3.2.3 The Media

There was generally a fundamental misunderstanding about the role the media plays during a crisis. Esso was the best-prepared organisation to deal with this relationship which may have resulted in less negative and more positive media coverage during the first 10 days of the crisis. However, Esso lost this advantage after the second part of the crisis began.

4.7.3.2.4 The Union

The relationship with the union is critical to focus key executives on managing the crisis. Crises are seen as good opportunities to advance political or working conditions goals.
4.7.3.5 The Staff

The staff members who were fully informed of the actions taken by the organisation to manage the crisis played a critical role in its solution (case of Esso and Seafood Industry).

4.7.3.6 The Community

The community was affected by all these crises to different degrees. Only Esso had a strategy to develop strong relationships with the community of Sale where the Longford plant was installed. The rest of the organisations had no plans to strengthen their relationships with the community. The RMIT failed to deal with the concerns of students about the things affecting their enrolments. Pan had an apparent disregard for the wellbeing of the public consuming its products.

4.7.3.3 Crisis History

- Learning from previous crisis experiences.
- Incorporating this learning into the strategic preparedness strategies.

Table 4.N: Cross Studies Strategic Positioning

<table>
<thead>
<tr>
<th>Organisations/Themes</th>
<th>Esso</th>
<th>Pan Pharmaceuticals</th>
<th>RMIT</th>
<th>Seafood Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis management</td>
<td>Best Practice</td>
<td>Non-existent</td>
<td>Non-existent</td>
<td>Non-existent</td>
</tr>
<tr>
<td>Issues management</td>
<td>Best Practice</td>
<td>Non-existent</td>
<td>Non-existent</td>
<td>Non-existent</td>
</tr>
<tr>
<td>Risk management</td>
<td>Best Practice</td>
<td>Never implemented</td>
<td>Very general</td>
<td>Non-existent</td>
</tr>
<tr>
<td>Crisis training</td>
<td>Best Practice</td>
<td>Non-existent</td>
<td>Non-existent</td>
<td>Non-existent</td>
</tr>
<tr>
<td>Stakeholder relationships</td>
<td>Best Practice/community</td>
<td>Non-existent</td>
<td>Very general and ad hoc</td>
<td>Non-existent</td>
</tr>
<tr>
<td></td>
<td>But it was not consistently implemented in relation to other key stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lessons learned</td>
<td>Lack depth</td>
<td>Non-existent</td>
<td>Non-existent</td>
<td>Non-existent</td>
</tr>
<tr>
<td>Lessons incorporated to strategy</td>
<td>Non-existent</td>
<td>Non-existent</td>
<td>Non-existent</td>
<td>Non-existent</td>
</tr>
</tbody>
</table>
4.7.3.4 **Key Independent Variables**

The following variables were identified and incorporated into our quantitative analysis:

**Table 4.O: Cross Studies Key Independent Variables**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Strategic Preparedness</th>
<th>Relationships History</th>
<th>Crisis History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan</td>
<td>1 Crisis management plan and processes</td>
<td>Stakeholders plan and processes Relationship history: focusing on the board, regulators, media, the industry</td>
<td>Learning from own previous crises</td>
</tr>
<tr>
<td></td>
<td>2 Crisis communication</td>
<td></td>
<td>Learning from external crises</td>
</tr>
<tr>
<td></td>
<td>3 Risk management (product recall)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Training and simulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Esso</td>
<td>1 Crisis management plan and processes</td>
<td>Stakeholders plan and processes Relationships history focusing on the union, the staff, regulators, media</td>
<td>Learning from own previous crises</td>
</tr>
<tr>
<td></td>
<td>2 Crisis communication</td>
<td></td>
<td>Learning from external crises</td>
</tr>
<tr>
<td></td>
<td>3 Risk management (product recall)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Training and simulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMIT</td>
<td>1 Crisis management plan and processes</td>
<td>Stakeholders plan and processes Relationship history focusing on the staff union, the student union, the staff, regulators, media</td>
<td>Learning from external crises</td>
</tr>
<tr>
<td></td>
<td>2 Crisis communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Risk management (product recall)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Training and simulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seafood Industry</td>
<td>1 Crisis management plan and processes</td>
<td>Stakeholders plan and processes Relationship history focusing on the customers, the media, external regulators, producers</td>
<td>Learning from external crises</td>
</tr>
<tr>
<td></td>
<td>2 Crisis communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Risk management (product recall)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Training and simulations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Key Dependent Variables (Crisis Outcomes)

#### Table 4.P: Cross Studies Key Dependent Variables

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Tangibles financial</th>
<th>Tangibles – Non-financial</th>
<th>Non-tangibles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pan</strong></td>
<td>Direct financial cost of the crisis</td>
<td>Resignation of board members</td>
<td>Reputation</td>
</tr>
<tr>
<td></td>
<td>Profits</td>
<td>Resignation of the CEO</td>
<td>Staff morale</td>
</tr>
<tr>
<td></td>
<td>Revenues</td>
<td>Resignation of senior managers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Share price</td>
<td>Criminal charges to key staff members</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>State enquiry</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suspension of share trading</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The appointment of independent administrators</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A prolonged civil litigation process</td>
<td></td>
</tr>
<tr>
<td><strong>Esso</strong></td>
<td>Direct financial cost of the crisis</td>
<td>Royal Commission</td>
<td>Reputation</td>
</tr>
<tr>
<td></td>
<td>Profit</td>
<td>Coroner’s Enquiry</td>
<td>Staff morale</td>
</tr>
<tr>
<td></td>
<td>Revenues</td>
<td>Substantial organisational changes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Substantial policy changes</td>
<td></td>
</tr>
<tr>
<td><strong>RMIT</strong></td>
<td>Direct financial cost of the crisis</td>
<td>Resignation of board members</td>
<td>Reputation</td>
</tr>
<tr>
<td></td>
<td>Revenues</td>
<td>Resignation of the CEO</td>
<td>Staff morale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resignation of senior managers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>State enquiry</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Substantial organisational changes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Substantial policy changes</td>
<td></td>
</tr>
<tr>
<td><strong>Seafood Industry</strong></td>
<td>Direct financial cost of the crisis</td>
<td>Federal Enquiry</td>
<td>Reputation</td>
</tr>
<tr>
<td></td>
<td>Revenues</td>
<td>Substantial organisational changes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Substantial policy changes</td>
<td>Staff morale</td>
</tr>
</tbody>
</table>
Chapter 5
Quantitative Data Analysis

The purpose of this chapter is to provide a descriptive overview of our data and to quantitatively test hypotheses H1 to H3. These hypotheses are articulated in Chapter 3 of the dissertation where we theorised the relationships between our three constructs: strategic preparedness, relationship history and crisis history, and the crisis outcomes: tangible financial, tangible non-financial and non-tangible. We also conducted an examination of the suitability of our data prior to the factor analysis.

5.1 Descriptive Statistical Analysis

The purpose of this section is to provide an overview of the 50 organisations that experienced a high-profile crisis, using the information collected from our HPCM survey. This analysis was carried out using statistical descriptive techniques like frequencies, graphical presentations and summary tables. Some additional tables, charts and figures are included in the Appendices. We used the software package Perseus Survey/Solutions 6 to calculate the relevant statistics. It is important to note that the percentages were calculated in relation to the total number of organisations that answered the particular question (which generally varied from 46 to 50 organisations).

5.1.1 Organisational Profile (Q1-Q5)

We captured information on 50 organisations that experienced a high-profile crisis event within the last 10 years. Most of the organisations fell into the category of large firms (defined by this study as having 501 or more equivalent full-time employees (EFT) and with revenues of more than $100 million per year (see Appendix 1, Table V). Out of the 50 organisations, 32 per cent had 500 or less EFTs and 68 per cent had 501 or more EFTs. Forty per cent of these organisations had revenues of $100 million or less and 60 per cent of $101 million or more. Fifteen per cent of the organisations had revenues of more than $1,000 million. It was not surprising to find that 30 per cent of the organisations were included in the Business Review Weekly (BRW) top 1000 biggest...
Australian and New Zealand Enterprises. Eighty-two per cent of the organisations were Australian- and/or New Zealand-owned. The rest of the organisations (18 per cent) were subsidiaries of international companies with headquarters located outside the South Pacific region. The organisations were evenly distributed by type of industry (18 categories using the Australian Bureau of Statistics industry classification). The three types of industries with more representation were health and community services (18 per cent), state and local government (16 per cent) and education, cultural, sports and recreation (12 per cent). The rest of the industries were represented by percentages ranging from 2 to 10 per cent with the exception of property and business services and information technology that were not represented at all in our sample.

Our type of industries distribution was consistent with the general crisis-prone industry list in the USA (with the exception of information technology industries). When we compare both distributions (ICM Report, 2005), we see that health and community services organisations were listed in the ICM report as among the ten most crisis-prone industries in 2005. Other crisis-prone industries were petroleum refining, gas and oil extraction. We had 6 per cent of our sample from these industries. The information technology industry is the only one listed in the ICM reports from 2000 to 2005 and not represented in our sample (See Appendix 1, Chart I). The low number of responses by industry imposed the statistical limitation of having to exclude the “type of industry” as a moderator in our regression analyses.

5.1.2 Organisational Crisis Profile (Q6-Q15)

The high-profile organisational crises captured in our survey took place from 1988 to 2005. The highest crises frequencies were in 2003 and 2005 with 22 per cent in each year. The remaining organisations had an even higher crisis distribution of 6 per cent from 1998 to 2000, 12 per cent in 2001 and 2002 and 14 per cent in 2004 (see Appendix 1, Table VI). The distribution of the crises by type, showed that 38 per cent had operational and organisational causes, 2 per cent were caused by governance, financial, regulatory and/or legal reasons, 20 per cent were environmental and 18 per cent were external or other. The low number types of crises per category excluded the possibility of using the variable of “type of crisis” as a moderator in our regression analysis (see Appendix 1, Table VII). It is important to note that 13 of these
organisations identified a crisis trigger that could have been accommodated in more than one category.

Fifty per cent of the organisations’ crises were resolved within 14 days. For 24 per cent of the organisations, the crises lasted from 15 to 42 days. For 12 per cent the crises lasted 43 days or more. At the time of collecting the survey information we had 14 per cent of respondents experiencing a high-profile crisis. When asked the question of whether the high-profile crisis was used by the stakeholders to undermine the reputation of the organisation, a staggering 65 per cent of respondents strongly agreed/agreed with this statement in relation to the media and 44 per cent did the same in relation to the politicians (see Appendix 1, Table IX). This organisational feeling was illustrated by the RMIT crisis where the hostility from the media was evident. This is an issue worthy of further research. An also staggering 68 per cent of respondents indicated that they had to spend more than 60 per cent of their time working with issues directly related to the high-profile crisis (see Appendix 1, Table X). The executives interviewed for Esso, the RMIT and Seafood Industry illustrated this point by affirming that they had to work longer than usual hours to manage the crisis (sometimes up to 80 hours a week).

5.1.3 Strategic Crisis Planning (Q16-Q21)

It was surprising to see a that a high number of respondents perceived that some generic planning processes and documents (vision and values, code of conduct, long-term and short-term strategic planning) were either extremely useful or useful in minimising the overall negative impacts of the crisis outcomes (see Appendix 1, Table XI and Chart II). As these types of plans are very general in relation to the way crises could be managed. In particular, we found through our factor and regression analyses, that most of these independent variables did not explain the variance in the crisis outcomes (dependent variables). It is reasonable to speculate that the respondents perceived their high value in managing the crisis in relation to other dependent variables not included in this research. Sixty-two per cent of the organisations responded that the vision and values process was either extremely useful or useful in minimising the overall negative impacts of the crisis outcomes, 61 per cent thought this was the case for the code of conduct/ethics, 71 per cent for the long-term planning and 72 per cent for
the short-term planning. The specific processes to prevent and manage a crisis also had high percentages. Risk and reputation management had 72 per cent each. Issues management had 63 per cent. Of these three crises prevention processes only reputation management explained some of the crisis outcomes’ variance. By far the highest percentages were from the crisis management process with 78 per cent, and from the crisis communication process with 86 per cent. But neither of these processes explained the variance in relation to the crisis outcomes. Overall the respondents perceived that the processes added more value to the management of the crisis than actual documents as the percentages of responses were they believed the documents were either extremely useful or useful in minimising the overall negative impacts of the crisis outcomes, were generally higher to those given to the documents. The perception of these respondents was in contradiction to the factor and regression analyses results. The analysis found, that in most cases, documents rather than processes are more relevant to explain the variance in relation to the crisis outcomes.

**Table 5.A: Strategic Documents and Processes Contribution to Manage the Crisis**

<table>
<thead>
<tr>
<th></th>
<th>Process Extremely useful/ useful per cent</th>
<th>Documents Extremely useful/ useful per cent</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision and values</td>
<td>62 %</td>
<td>58 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Code of conduct/ ethics</td>
<td>61 %</td>
<td>54 %</td>
<td>7 %</td>
</tr>
<tr>
<td>Long-term strategic planning</td>
<td>71 %</td>
<td>67 %</td>
<td>5 %</td>
</tr>
<tr>
<td>Crisis management</td>
<td>78 %</td>
<td>76 %</td>
<td>2 %</td>
</tr>
<tr>
<td>Short-term strategic planning</td>
<td>72 %</td>
<td>65 %</td>
<td>7 %</td>
</tr>
<tr>
<td>Risk management</td>
<td>72 %</td>
<td>74 %</td>
<td>-2 %</td>
</tr>
<tr>
<td>Reputation management</td>
<td>72 %</td>
<td>68 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Crisis communication</td>
<td>86 %</td>
<td>83 %</td>
<td>2 %</td>
</tr>
<tr>
<td>Internal post-crisis analysis</td>
<td>65 %</td>
<td>61 %</td>
<td>4 %</td>
</tr>
<tr>
<td>HP crises analysis (other organisations)</td>
<td>27 %</td>
<td>22 %</td>
<td>5 %</td>
</tr>
<tr>
<td>Issues management analysis</td>
<td>63 %</td>
<td>64 %</td>
<td>-1 %</td>
</tr>
<tr>
<td>Stakeholder analysis</td>
<td>60 %</td>
<td>47 %</td>
<td>13 %</td>
</tr>
<tr>
<td>Audits (operational, financial)</td>
<td>50 %</td>
<td>54 %</td>
<td>-4 %</td>
</tr>
</tbody>
</table>

The vision and values documents were 58 per cent, the code of conduct/ethics 54 per cent, long-term planning 67 per cent and short-term planning 65 per cent.
The crisis prevention documents (reputation, risk and issues management) had generally higher percentages than the processes. Risk management had 74 per cent, reputation management had 68 per cent and issues management 64 per cent. The risk and issues management plans were identified by our factor and regression analysis as important variables to explain the variance in the crisis outcomes. The crisis management practices (crisis management and crisis communication) were perceived by the respondents as key components of their management strategy, as crisis communication documents had a high percentage of 83 per cent. It is interesting to note that only 22 per cent of respondents believed that the analysis of crises of other organisations was an important practice to manage a crisis. In fact 40 per cent of the respondents did not produce a relevant document related to the analysis of external crises at all (18 responses).

Very few members of the boards or CEOs undertook solid crisis management training prior to the crisis. In the case of the board members this practice barely reached 13 per cent. In the case of the CEOs it reached 30 per cent. As expected, the highest percentages were for the communications/public relations managers (71 per cent), the crisis leaders (63 per cent), the crisis teams (59 per cent) and the spokespersons (69 per cent—see Appendix 1, Table XII and Chart III). It is interesting to note that the communications/public relations managers were better trained in crisis management
than the crisis leaders themselves (although in most cases, we assumed that the role of the crisis leader fell to the communications/public relations manager). This was particularly the case, if we take into consideration that the crisis leader and the crisis team explained a large part of the crisis outcomes variance. It was surprising to find that 37 per cent of the crisis leaders were not trained in crisis management, as we expected these key staff to be fully skilled. This figure has to be assessed also in relation to the content of the training. The highest training category (69 per cent) is related to media crisis, followed by spokesperson coaching (62 per cent) and crisis management (60 per cent). One of the lowest figures was internal communications with 54 per cent (see Appendix 1, Table XIII and Chart IV). We could clearly see in these figures that organisations tended to focus on training staff in media crises and one of their last priorities was to train them in internal communications. Although the training content was identified in our regression analysis as a variable that explained the variance in crisis outcomes. The organisation’s relationship with the staff and the union were also identified as important contributors to explain the variance. We can speculate that internal communications played a key role in achieving a quality relationship with these two stakeholders and as such should be a training priority. A better re-allocation of training resources may be warranted based on these assumptions.

5.1.4 Stakeholder Relationships (Q22-Q28)

Very few of our respondents rated the relationship their organisations had with their stakeholders as poor, very poor or non-existent. This was rather surprising if we take into account that 80 per cent of these organisations invested less than $3 million a year to improve their relationships with their respective stakeholders. There is also a lack of indicators that establish objectively the quality of the relationship with stakeholders. Excluding the international media, with a percentage of 59 per cent (see Appendix 1, Table XIV and Chart V), the survey respondents had the perception in more than 85 per cent of the cases that the quality of the relationships with their respective stakeholders was reasonable, good or excellent. In fact 78 per cent believed that their relationship with the staff was excellent or good. Forty-six per cent (in those cases where there was a union) assessed the quality of the relationship with the union as good. Not one respondent answered that their relationship with the union was excellent. A
staggering 91 per cent thought that the relationship with the board members was either excellent or good. It seems that there was a tendency by the respondents to overrate the quality of the relationship with their stakeholders.

The high-profile crises had overall negative effects on the quality of the relationships with the stakeholders. The highest negative effect on the quality of the relationship was felt in order of magnitude, on customers (14 per cent), regulators (13 per cent), shareholders (12 per cent), staff (9 per cent) and union (8 per cent). The last two stakeholder relationships are critical as staff and the union explained a great deal of variance in the crisis outcomes. Interestingly, the relationship with the international media and the local community where the organisations carried out their businesses improved substantially after the crisis. The international media percentage went up 12 per cent and the local community 8 per cent. We could assume that these increases were related to the type of relationship the organisations developed during the crisis and that before the crisis the contact between the organisations and these stakeholders was minimal.

5.1.5 Crisis Management

5.1.5.1 External Advice (Q29-34)

There is a strong reliance on external advice during a crisis (see Appendix 1, Table XV). A majority of organisations used this resource during the crisis (64 per cent). A great number of organisations used external advice continuously or frequently, 70 per cent for legal issues, 55 per cent for media communication, 48 per cent for other stakeholder communications and 44 per cent for financial issues (see Appendix 1, Table XVI).

Out of the organisations that incorporated the external advice into their response strategy continuously or frequently, 76 per cent did so for media communication, 73 per cent for legal issues, 67 per cent for other stakeholder communications and 48 per cent for financial issues. These high percentages for media and legal issues incorporation put a question mark on the level of crisis preparedness of the organisations to manage a crisis using internal media and legal resources (see Appendix 1, Table XVII).

It was surprising to find that the legal advice during the crises, when in conflict with other types of advice, did not play a dominant role.
Table 5.C: Comparison of Key Stakeholder Relationships Pre and Post Crisis Event

<table>
<thead>
<tr>
<th>Topic</th>
<th>Total Positive before %</th>
<th>Total Positive post-crisis %</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders</td>
<td>100%</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>Board/Council</td>
<td>100%</td>
<td>95%</td>
<td>5%</td>
</tr>
<tr>
<td>Suppliers</td>
<td>98%</td>
<td>90%</td>
<td>8%</td>
</tr>
<tr>
<td>Customers</td>
<td>91%</td>
<td>77%</td>
<td>14%</td>
</tr>
<tr>
<td>Staff members</td>
<td>94%</td>
<td>85%</td>
<td>9%</td>
</tr>
<tr>
<td>Union</td>
<td>87%</td>
<td>79%</td>
<td>8%</td>
</tr>
<tr>
<td>Competitors</td>
<td>94%</td>
<td>91%</td>
<td>3%</td>
</tr>
<tr>
<td>Industry Association</td>
<td>95%</td>
<td>95%</td>
<td>0%</td>
</tr>
<tr>
<td>Indusit peers</td>
<td>91%</td>
<td>93%</td>
<td>-2%</td>
</tr>
<tr>
<td>Local &amp; State Media</td>
<td>94%</td>
<td>89%</td>
<td>5%</td>
</tr>
<tr>
<td>National Media</td>
<td>85%</td>
<td>89%</td>
<td>-3%</td>
</tr>
<tr>
<td>International Media</td>
<td>59%</td>
<td>71%</td>
<td>-12%</td>
</tr>
<tr>
<td>Local &amp; State Gov</td>
<td>91%</td>
<td>87%</td>
<td>5%</td>
</tr>
<tr>
<td>Federal Government</td>
<td>88%</td>
<td>88%</td>
<td>0%</td>
</tr>
<tr>
<td>Regulators</td>
<td>97%</td>
<td>84%</td>
<td>13%</td>
</tr>
<tr>
<td>(NGO's)</td>
<td>90%</td>
<td>89%</td>
<td>1%</td>
</tr>
<tr>
<td>Interest Groups linked</td>
<td>85%</td>
<td>93%</td>
<td>-8%</td>
</tr>
<tr>
<td>Local comm core bus</td>
<td>87%</td>
<td>95%</td>
<td>-8%</td>
</tr>
<tr>
<td>Other</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>
The legal advice (always or frequently) over-ruled the stakeholder communication advice in 39 per cent of the cases, and in 28 per cent of cases in relation to the media communications and financial advice (see Appendix, Table XVIII).

5.1.5.2 Response Strategies (Q35)

In order to analyse the response strategies, we divided them into three categories: unethical, ethical and tactical responses (see Appendix 1, Table XIX). The unethical responses are practices that by their nature are considered in the field of crisis management as not desirable and/or conducive to social cohesion. The ethical responses are responses conducive to reputation enhancement and the tactical are response strategies that depend on the context of the crisis and do not have an inherent moral connotation. Overall, more organisations implemented response strategies classified as ethical or tactical than the unethical ones. However, unethical practices like refuting evidence and delaying tactics are widespread within the practitioners’ community.

5.1.5.2.1 Unethical Crisis Responses

Almost 53 per cent of organisations responded that they had either “sometimes”, “usually” or “always” resorted to the refuting evidence strategy during the crisis, 33 per cent using delaying tactics and 31 per cent using excuses. We could speculate that organisations tend to use these practices because they see a value in their implementation either as a way of enhancing their reputation or as a way to minimise the negative impacts on crisis outcomes. The least used unethical practice was scapegoating with 8 per cent. These practices will continue until researchers demonstrate empirically that organisations could be better off avoiding them. This is a key area in need of further research.

5.1.5.2.2 Ethical Crisis Responses

The strategy of highlighting the most positive aspects of the organisation during a crisis was a practice used by all crisis team members (100 per cent). It was followed by acknowledging others in a positive way (96 per cent) and full disclosure of
information (88 per cent). Not surprisingly, the least-used ethical strategy was to pay compensation/accept liability (49 per cent).

5.1.5.2.3 Tactical Crisis Responses

Eliciting support from third parties had the highest percentage (80 per cent), followed by having the CEO as the main spokesperson (78 per cent) and having the CEO talk directly to the affected stakeholders (victims). The recent crisis literature questions the value of having the CEO as the main spokesperson and recommends a multi-spokesperson approach (Arpan, 2002). In fact the multi-spokesperson approach based on the type of crisis was used for only 55 per cent of organisations. The Chairperson of the board as a spokesperson had the lowest percentage with 33 points. Noting that in two out of our four qualitative studies, the Chairman of the board acted as spokesperson during their crisis (the RMIT and Pan Pharmaceuticals). Although no empirical research was found on the benefits of having the CEO talking directly to the victims, political anecdotes point to a high probability of political damage to politicians who do not talk to accident victims. The use of the internet to communicate with stakeholders was also a popular practice (74 per cent). This communication tool was used widely by three out of four organisations studied in our qualitative analysis. The efficiency of the internet as an internal communication tool during a crisis has not yet been researched.

5.1.6 Crisis Outcomes (Q36-Q40)

The respondents generally believed that the high-profile crisis affected the financial tangible outcomes more than the non-tangible ones. They also tended to rate the overall crisis tangible outcomes more negatively than the non-tangible outcomes (see Appendix 1, Table XX and Chart VI). For instance only 18 per cent of the respondents rated the revenue outcome after the crisis as either excellent or good. Thirty-two per cent did the same for the profits outcome. However, for the non-tangible outcomes, reputation and staff morale were 47 and 59 per cent respectively. We could conclude that this difference in ratings has more to do with the biases of the respondents to be more generous with their respective evaluation ratings in those crisis outcomes that are more difficult to measure than in those outcomes where the information is
objective and more widely known (like profits and revenues). This conclusion seems to be confirmed when we analysed this set of responses with the crisis outcome impact (Q39), where the respondents had to rate them from “historically low levels” to “historically high levels”. Twenty-eight and thirty three per cent of the respondents respectively measured the impact of the crisis of reputation and staff morale as having either higher, substantially higher or historically high levels. These results seem to contradict their own overall assessment. But the same tendency was observed when measuring revenues and profits where the percentages were higher (34 and 26 per cent respectively). It would be reasonable to speculate that the respondents, when having to measure the impact of the crisis outcomes against historical points of reference, tended to be more conservative in their responses when dealing with non-tangible outcomes and more positive when measuring revenues and profits (see Appendix 1, Tables XXI.1 and XXI.2).

By far the implementation of substantial policy and organisational changes were the most common tangible non-financial outcomes experienced by the organisations, with 74 and 57 per cent respectively. These were followed by a regulator’s enquiry (35 per cent), a prolonged civil litigation process (31 per cent), and a federal or state enquiry (28 per cent). In the resignation of staff, the senior managers had the highest occurrence with 25 per cent, followed by the resignation of the CEO (13 per cent) and the resignation of board members (11 per cent). Two out of our four qualitative studies experienced the resignation of all these three categories of governance members and senior executive staff. The USA Institute for Crisis Management cited as a cause of a crisis itself, the resignation of board members and/or the CEO in their annual reports.

The share price of most organisations (70 per cent) was not affected by their respective crises. For 42 and 47 per cent of organisations the revenues and profits were not affected. These percentages were lower in relation to the non-tangible outcomes. The reputation of 27 per cent and the staff morale of 26 per cent of organisations were not affected. For the organisations that were indeed affected, the journey to full-time recovery to pre-crisis levels was very slow. Only 21 per cent of the respondents experienced a full recovery of revenues and profits within six months. The non-tangible crisis indicators performed better: 30 and 26 per cent of organisations recovered their reputation and staff morale to pre-crisis levels within the same period. Twenty-six and
21 per cent of organisations required more than six months to recover their revenues and profits to pre-crisis levels or more. Twenty and 29 per cent required the same length of time to recover their reputation and staff morale pre-crisis levels. A staggering 23 and 19 per cent of organisations have yet to recover their reputation and staff morale to pre-crisis levels.

5.1.7 Crisis History (Q42-Q48)

Most of the respondents (64 per cent) classified their organisations as crisis-prone (see Appendix 1, Table XXIII). This was probably an understated figure as 82 per cent of organisations experienced more than two crises within the last 10 years of completing the survey. A staggering 20 per cent experienced more than eight high-profile crises. Twenty-four per cent of respondents believe that at least one of their high-profile crises threatened the survival of their respective organisations. A very high percentage of organisations (72 per cent) had formal processes to analyse the way their most recent high-profile crisis was handled. Out of these organisations 69 per cent (equivalent to 27 organisations) either always or usually incorporated the lessons and recommendations of the post-mortem analyses into consideration when managing their most recent high-profile crisis (see Appendix 1, Table XXIV).

5.1.8 Interviewee Profile (Q60-Q68)

Our survey was completed by almost equal number of men (52 per cent) and women (48 per cent). All of them were older than 30 years of age, having the highest percentage in the 30 to 59 years of age bracket (94 per cent). Their level of education was high. Seventy-six per cent of the respondents had a level of education of bachelor degree or higher (see Appendix 1, Chart VII). This percentage was well above the national figure of education of people at work of 14 per cent in 2004 (WEB: ABS). Six per cent had a high school certificate only and 34 per cent had postgraduate studies, well above the national figure of 3 per cent. Two per cent had a PhD. In relation to the respondents’ position within the organisation, 59 per cent were public relations or communication managers, 8 per cent senior managers in other areas, 6 per cent CEOs, 12 per cent external advisors and the rest (15 per cent) performed other roles. The high
number of respondents from the public relations/communications area is consistent with the current way organisations deal with high-profile crises. As the public relations/communications managers tend to play the role of either the crisis leader or as a member of the crisis team. Most of the respondents had been working for the organisation for more than three years. Only 20 per cent of the respondents had been working for the organisation for less than two years. Forty-two per cent of the respondents had been working for the organisation for six years or more. Forty-four per cent had taken media crisis and crisis management training for 17 hours or more (17 hours or more is considered by practitioners as the minimum amount of time/training to learn the crisis media and management basics). Four per cent and 10 per cent respectively had neither media nor crisis management training. Only 4 per cent had no experience at all in dealing with any type of crisis and 8 per cent had no experience in relation to high-profile crises. Sixty-seven and 42 per cent had had experience in dealing with more than six general and high-profile crises respectively (see Appendix 1, Table XXV).

5.2 Factor Analysis

This section follows the three steps in conducting factor analysis: assessing the suitability of the data, factor extraction and factor rotation and interpretation, suggested by Pallant (2001). The multi-regression analysis to test the hypotheses was carried out using interdependence methods: confirmatory factor and reliability analyses and multivariate dependence methods (correlations and multiple regression analyses). We used the Statistical Package for Social Scientists (SPSS) program, Version 12 to compute the relevant statistical calculations.

5.2.1 Assessing the Suitability of Data

This section examines the impact of missing data, identified outliers and tests for the assumption of multivariate techniques in order to determine how appropriate it is to conduct a multivariate analysis with the collected survey information, as suggested by Hair et al. (2006). This data analysis process is particularly relevant given the size of our sample (50 observations). This analysis was carried out on our initial HPCM model with 65 independent and 28 dependent variables (see Table 5.D-categorical variables.
are not included). According to Pallant (2001), the independent variables must be continuous or categorical. Our independent “profiled variables” (sex, education, training and experience in crisis management) are categorical, and in our crisis management model independent variables and dependent variables are all continuous. As such we met Pallant’s criteria.

5.2.1 Missing Data

Hair et al. (2006) argue that the researcher’s primary concern is to identify the patterns and relationships underlying missing data in order to maintain as close as possible the original distribution of values when any remedy is applied. As such, we conducted in this section a missing data analysis to achieve this original distribution of values objective to apply any remedy if needed.

Hair et al. (2006) classify the missing data as ignorable missing data and not ignorable missing data. The ignorable missing data relates to all the data that was expected as part of the research design. Conversely, the “not-ignorable missing data” is not the product of the research design. In the first case, the specific remedies for missing data are not needed because the allowances for them are inherent in the technique used. In the second case, an appropriate remedy has to be found. We identified the survey questions from “Question 1” Q1 successively to Qn. See Appendix 3 Questionnaire for more detailed information.

5.2.1.1 Independent Variables

This section analyses in detail all those variables identified with having equal or more than 15 per cent of missing values (equivalent to a minimum of seven missing values). Based on these criteria, we identified 30 out of the 65 independent variables with a high number of missing cases (see Table 5.E).

For Q16 and Q17 (strategic preparedness processes and documents variables) the “not applicable” option was treated as a “missing value” (mv). Fourteen independent variables from questions Q16 and Q17 had percentages of missing values equal or higher than 15 per cent (see Table 5.E). In 13 cases, we concluded that any statistical remedies like the imputation by replacement of values were not appropriate and we proceeded to delete them from our working database.
Table 5.D: List of Pre-Missing Value Analysis Independent and Dependent Variables

<table>
<thead>
<tr>
<th>No.</th>
<th>Independent Variables</th>
<th>No.</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q16 Vision and values</td>
<td>1</td>
<td>Q36 Direct financial costs</td>
</tr>
<tr>
<td>2</td>
<td>Q16 Code of conduct/ ethics</td>
<td>2</td>
<td>Q36 Share Price</td>
</tr>
<tr>
<td>3</td>
<td>Q16 Long term SP</td>
<td>3</td>
<td>Q36 Revenue General</td>
</tr>
<tr>
<td>4</td>
<td>Q16 Crisis Management</td>
<td>4</td>
<td>Q36 Profits</td>
</tr>
<tr>
<td>5</td>
<td>Q16 Short term SP</td>
<td>5</td>
<td>Q36 Reputation General</td>
</tr>
<tr>
<td>6</td>
<td>Q16 Risk Management</td>
<td>6</td>
<td>Q36 Staff morale</td>
</tr>
<tr>
<td>7</td>
<td>Q16 Reputation management</td>
<td>7</td>
<td>Q36 Resignation of board members</td>
</tr>
<tr>
<td>8</td>
<td>Q16 Crisis communication</td>
<td>8</td>
<td>Q36 Resignation of the CEO</td>
</tr>
<tr>
<td>9</td>
<td>Q16 Internal post-crisis analysis</td>
<td>9</td>
<td>Q38 Resignation of senior managing</td>
</tr>
<tr>
<td>10</td>
<td>Q16 HPIC analysis (other organisations)</td>
<td>10</td>
<td>Q38 Substantial org changes</td>
</tr>
<tr>
<td>11</td>
<td>Q16 Issues management analysis</td>
<td>11</td>
<td>Q38 Substantial policy changes</td>
</tr>
<tr>
<td>12</td>
<td>Q16 Stakeholder analysis</td>
<td>12</td>
<td>Q38 Suspension of share trading</td>
</tr>
<tr>
<td>13</td>
<td>Q16 Audits General</td>
<td>13</td>
<td>Q38 Criminal charges to staff members</td>
</tr>
<tr>
<td>14</td>
<td>Q17 Vision and values</td>
<td>14</td>
<td>Q38 The appointment of indep admin</td>
</tr>
<tr>
<td>15</td>
<td>Q17 Code of conduct/ ethics</td>
<td>15</td>
<td>Q38 A regulators’ inquiry</td>
</tr>
<tr>
<td>16</td>
<td>Q17 Long term SP</td>
<td>16</td>
<td>Q38 A Federal or State inquiry</td>
</tr>
<tr>
<td>17</td>
<td>Q17 Crisis Management</td>
<td>17</td>
<td>Q38 A prolonged civil litigation</td>
</tr>
<tr>
<td>18</td>
<td>Q17 Short term SP</td>
<td>18</td>
<td>Q39 Direct financial costs- Impact</td>
</tr>
<tr>
<td>19</td>
<td>Q17 Risk management</td>
<td>19</td>
<td>Q39 Share Price-Impact</td>
</tr>
<tr>
<td>20</td>
<td>Q17 Reputation management</td>
<td>20</td>
<td>Q39 Revenue-Impact</td>
</tr>
<tr>
<td>21</td>
<td>Q17 Crisis communication</td>
<td>21</td>
<td>Q39 Profit-Impact</td>
</tr>
<tr>
<td>22</td>
<td>Q17 Internal post-crisis analysis</td>
<td>22</td>
<td>Q39 Reputation-Impact</td>
</tr>
<tr>
<td>23</td>
<td>Q17 HPIC analysis (other organisations)</td>
<td>23</td>
<td>Q39 Staff morale-Impact</td>
</tr>
<tr>
<td>24</td>
<td>Q17 Issues Mgt analysis</td>
<td>24</td>
<td>Q40 Share Price</td>
</tr>
<tr>
<td>25</td>
<td>Q17 Stakeholder analysis</td>
<td>25</td>
<td>Q40 Revenue</td>
</tr>
<tr>
<td>26</td>
<td>Q17 Audits General</td>
<td>26</td>
<td>Q40 Profit</td>
</tr>
<tr>
<td>27</td>
<td>Q19 Members of the Board/Council</td>
<td>27</td>
<td>Q40 Reputation</td>
</tr>
<tr>
<td>28</td>
<td>Q19 CEO or Managing Director General</td>
<td>28</td>
<td>Q40 Staff morale</td>
</tr>
<tr>
<td>29</td>
<td>Q19 Senior Managers</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Q19 Crisis leader</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Q19 Crisis team</td>
<td>31</td>
<td></td>
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<tr>
<td>32</td>
<td>Q19 Communication or PR</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Q19 Spokesperson</td>
<td>33</td>
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<tr>
<td>34</td>
<td>Q19 Key technical people</td>
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<td>35</td>
<td>Q20 Media crisis</td>
<td>35</td>
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<td>36</td>
<td>Q20 Issues management</td>
<td>36</td>
<td></td>
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<td>37</td>
<td>Q20 Message development</td>
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<td>38</td>
<td>Q20 Crisis management</td>
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<td></td>
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<td>39</td>
<td>Q20 Internal communications</td>
<td>39</td>
<td></td>
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<tr>
<td>40</td>
<td>Q20 Spokesperson coaching</td>
<td>40</td>
<td></td>
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<td>41</td>
<td>Q22 Shareholders</td>
<td>41</td>
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<td>42</td>
<td>Q22 Members of the Board/Council</td>
<td>42</td>
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<td>43</td>
<td>Q22 Suppliers</td>
<td>43</td>
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<td>44</td>
<td>Q22 Customers General</td>
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<td>Q22 Staff members</td>
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<td>Q22 Union</td>
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<td>49</td>
<td>Q22 Industry peers</td>
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<td>Q22 Local Media and State Media</td>
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<td>52</td>
<td>Q22 International Media</td>
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<td>Q22 Local and State Government</td>
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<td>Q22 Interest Groups</td>
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<td>Q22 Local community</td>
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195
However, Q17 issues management was retained as it was identified in our qualitative study as a variable of strong practical significance. In Q22 the “not applicable option” was a proper answer for shareholders (48 per cent mv), competitors (32 per cent mv), and industry association (24 per cent mv) as these were related to private organisations only. However, we decided to delete these variables because of the low number of observations collected. Five out of the six independent variables from Q22 quality of relationships – suppliers, international media and regulators, NGOs, local community – that did have over 15 per cent of missing values were deleted. But Q22 union fell within the “not ignorable data” category as it was identified in our qualitative research as a variable of substantial practical significance. We tried a variety of methods to remedy the Q22 union data problem. We examined other variables correlations with it. For instance, the Q22 union was highly correlated with Q22 staff members with an $r = .539$ and $\alpha = .000$, but the number of observations were not significant (35 versus 39). We decided to maintain Q22 union with no data manipulation.

Q44 of the questionnaire asked whether the organisation had more than one high-profile crisis. If that was the case, respondents skipped Q48 and Q50 altogether. Only those organisations with a “crisis history” were able to respond to these questions. Q48 lessons learned (22 per cent mv) was retained as it was identified as a variable of substantial practical significance in our qualitative study. Although the Q50 variables were assessed as “ignorable missing values”, Q50 share price (84 per cent mv), Q50 direct financial costs (40 per cent mv), Q50 revenue (48 per cent mv) and Q50 profits (62 per cent mv), reputation (28 per cent mv) and staff morale (30 per cent mv) all had very few observations (equal or less than 36). For this reason we decided to delete them from this analysis.

This analysis reduced the number of independent variables from 65 to 37 (see Table 5.F).
Table 5.F: Post-Missing Value Analysis Independent Variables

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<td>Q19 Crisis team</td>
<td>49</td>
<td>2.45</td>
<td>1.16</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>Q19 Communication or PR</td>
<td>49</td>
<td>1.92</td>
<td>1.08</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>Q19 Spokesperson</td>
<td>49</td>
<td>2.00</td>
<td>1.10</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21</td>
<td>Q19 Key technical people</td>
<td>47</td>
<td>2.89</td>
<td>1.11</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>22</td>
<td>Q20 Media crisis</td>
<td>49</td>
<td>2.12</td>
<td>0.95</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>23</td>
<td>Q20 Issues management</td>
<td>49</td>
<td>2.45</td>
<td>1.04</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24</td>
<td>Q20 Message development</td>
<td>50</td>
<td>2.48</td>
<td>1.05</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>Q20 Crisis management</td>
<td>50</td>
<td>2.22</td>
<td>1.10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26</td>
<td>Q20 Internal communications</td>
<td>50</td>
<td>2.32</td>
<td>1.00</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>27</td>
<td>Q20 Spokesperson coaching</td>
<td>50</td>
<td>2.38</td>
<td>1.07</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>28</td>
<td>Q22 Members of the Board/Council</td>
<td>43</td>
<td>1.77</td>
<td>0.61</td>
<td>7</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>29</td>
<td>Q22 Customers General</td>
<td>46</td>
<td>2.35</td>
<td>0.85</td>
<td>4</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>Q22 Staff members</td>
<td>50</td>
<td>2.22</td>
<td>0.82</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>Q22 User</td>
<td>39</td>
<td>2.72</td>
<td>0.63</td>
<td>11</td>
<td>22</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>32</td>
<td>Q22 Industry peers</td>
<td>43</td>
<td>2.33</td>
<td>0.81</td>
<td>7</td>
<td>14</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>Q22 Local Media and State Media</td>
<td>50</td>
<td>2.24</td>
<td>0.77</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>34</td>
<td>Q22 National Media</td>
<td>48</td>
<td>2.69</td>
<td>1.06</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>35</td>
<td>Q22 Local and State Government</td>
<td>46</td>
<td>2.31</td>
<td>0.85</td>
<td>4</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>Q22 Interest Groups</td>
<td>47</td>
<td>2.81</td>
<td>0.82</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>37</td>
<td>Q48 Lessons learned-Crisis History</td>
<td>39</td>
<td>2.28</td>
<td>1.28</td>
<td>11</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

5.2.1.1.2 Dependent Variables

The research identified a comprehensive list of dependent variables (known in this research also as crisis outcomes) based on an exhaustive scanning of media sources. However, we expected that many of these crisis outcomes might not be statistically represented in our data collection process. We defined a minimum cut-off limit of 70 per cent of observations as sufficient to establish some basic relationships between our independent and our dependent variables. Four crisis outcomes variables failed to reach this cut-off limit (see Table 5.G).

Two dependent variables were deleted: Q36 share price (70 per cent mv) and Q39 share price – impact (74 per cent mv). We kept Q36 profits and Q39 profits as their low observations were a product of our research design.
As part of our collection technique, we included the category of “not applicable” as a possible answer for organisations that may not have “share price” or “profits”. This was a critical factor that reduced the number of observations for these dependent variables.

We concluded that the extent of our missing values related to the 21 dependent variables remaining was not substantial enough to warrant further action as most of the missing values were a direct result of the technique used to collect the data (Hair et al., 2006).

5.2.1.2  Graphical Examination of the Data

Graphic techniques help researchers understand the basic characteristics of individual variables and relationships between variables (Hair et al., 2006).

In this section we analysed the 37 independent and 21 dependent variables post-missing values analysis.
5.2.1.2.1 Shape of the Data Distribution

We used histograms to represent the shape of the data distribution. Hair et al. (2006) describe a histogram as the graphical representation of a single variable that represents the frequency of occurrences (data values) within data categories. Pallant (2001) defines it as technique used to display the distribution of a single continuous variable.

The histograms for the independent and dependent variables are shown in Appendix 1, Chart XIII. Most of the independent variables fell within a normally distributed curve. But two independent variables, Q16 “Reputation Management” and Q22 “the Union”, were slightly skewed to the left. The variables captured data, however, seems to be consistent with the literature and the qualitative analysis. The Q22 histogram, regarding the quality of the relationship between the organisation and the union, seems to be within the expected outcomes as most organisations tend to have “excellent” relationships with the union as part of their overall stakeholder strategy. We decided that in this context it was not proper to manipulate the data to standardise it (by using transforming variables techniques).

The three dependent variables (Q38) measuring the relationship between the high-profile crisis and the resignation of board members, CEO and staff members, were rather flat as well as those from the appointment of independent administrators and criminal charges to staff members. These results were expected as we are measuring crisis outcomes only associated with a small number of observations. We considered that the answers reflected the intention of the question and decided not to manipulate the data. Based on further results obtained in the multi-regression analysis (residual plots), we had to decide whether or not to transform these variables. The individual analysis is detailed in section 5.5.

5.2.1.2.2 Outliers

Hair et al. (2006) define outliers as observations with a unique combination of characteristics identifiable as distinctly different from other observations. We used the univariate statistics produced by missing data analysis to identify the outliers that had three or more observations with extreme values. Our outliers’ analysis (see Table 5.H)
identified two independent and three dependent variables with three or more extreme values. We calculated the 5 per cent trimmed to assess whether there was any significant difference to the mean. As Pallant (2005) indicates, by comparing the mean with the 5 per cent trimmed mean value, we could ascertain whether these extreme scores had any strong influence on the mean. However, there were no significant differences between these two mean values.

Table 5.H: Outliers Independent and Dependent Variables

<table>
<thead>
<tr>
<th>No.</th>
<th>Independent Variables</th>
<th>N</th>
<th>Mean</th>
<th>5% trimmed mean</th>
<th>Std. Deviation</th>
<th>Missing Count</th>
<th>Percent</th>
<th>No. of Extremes (a,b)</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q17 Risk management</td>
<td>44</td>
<td>1.98</td>
<td>1.92</td>
<td>0.902</td>
<td>6</td>
<td>12</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Q22 National Media</td>
<td>48</td>
<td>2.69</td>
<td>2.60</td>
<td>1.055</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

a Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).
b Indicates that the inter-quartile range (IQR) is zero.

Outliers Analysis

<table>
<thead>
<tr>
<th>No.</th>
<th>Dependent Variables</th>
<th>N</th>
<th>Mean</th>
<th>5% trimmed mean</th>
<th>Std. Deviation</th>
<th>Missing Count</th>
<th>Percent</th>
<th>No. of Extremes (a,b)</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q36 Reputation General</td>
<td>49</td>
<td>2.73</td>
<td>2.71</td>
<td>1.114</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Q36 Staff morale</td>
<td>49</td>
<td>2.61</td>
<td>2.57</td>
<td>1.115</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Q36 Revenue-impact</td>
<td>36</td>
<td>3.32</td>
<td>3.32</td>
<td>1.141</td>
<td>12</td>
<td>24</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

We also analysed the individual responses from a practical significance perspective. These responses identified by this analysis were consistent with our literature review on this topic and the data collection designed. As such, we decided to retain these observations.

5.2.1.3 Sample Size and Strength

Pallant (2001) indicates that in small samples the correlation coefficients among the variables are less reliable and that factors obtained from small data sets do not generalise as well as those derived from larger samples. However, Pallant notes that Tabachnick and Fidell (1996) concede that “if strong, reliable correlations and a few, distinct factors a smaller sample size is adequate”. Hair et al. (2006) suggest that this issue can be overcome with initial larger cut-off loadings based on the size of the sample. Pallant adds that some authors suggest that it is not the overall sample size that is of concern rather the ratio of subjects to items. As this issue is still highly contested among the experts and as this research has a small sample of 50 observations the
researchers warn against generalising the results for organisations beyond the scope of this research – Australia and New Zealand – without further exploration of this topic.

The second issue is related to the strength of the correlation between items. Tabachnick and Fidell cited in Pallant (2001) recommend an inspection of Pearson’s correlation matrix (r) for evidence of coefficients greater than .3. If few correlations above this level are found, then factor analysis may not be appropriate. We computed the correlations of the items to be factored. A visual inspection found a high number of coefficients (r) greater than .3 at the significance levels of \( p=.01 \) and \( p=.05 \) (1-tailed). As such we proceeded with our statistical analysis.

Another test is the KMO and the Bartlett’s test of sphericity that determines the presence of correlations among the variables. A KMO measures the sampling adequacy. KMO’s values of .5 or higher indicate that sufficient correlations exist among the variables to proceed. An initial test resulted in a KMO of .571 but at an un-acceptable value of \( p=.984 \). Bartlett’s test of sphericity values has to be \( p \leq .05 \) to be acceptable for factor analysis. We ran a number of tests by eliminating each independent variable individually to identify its effect on the KMO and Bartlett’s test of sphericity. As a result of this exercise we eliminated 10 independent variables (from 37 to 27 independent variables). Table 5.I shows the final KMO and Bartlett’s test of sphericity, getting a KMO value of .694 and a Bartlett’s test of sphericity of \( p=.020 \) for the total of independent variables. Based on the above results, our observations, we considered, fulfilled the statistical criteria to run a factor analysis.

Table 5.I: KMO Analysis

<table>
<thead>
<tr>
<th>No.</th>
<th>Independent Variables</th>
<th>KMO if deleted</th>
<th>Bartlett's Test if deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q16 Vision and values</td>
<td>0.589</td>
<td>0.962</td>
</tr>
<tr>
<td>2</td>
<td>Q16 Code of conduct/eth</td>
<td>0.620</td>
<td>0.721</td>
</tr>
<tr>
<td>3</td>
<td>Q16 Long term SP</td>
<td>0.632</td>
<td>0.674</td>
</tr>
<tr>
<td>4</td>
<td>Q16 Short term SP</td>
<td>0.645</td>
<td>0.189</td>
</tr>
<tr>
<td>5</td>
<td>Q17 Vision and values</td>
<td>0.589</td>
<td>0.878</td>
</tr>
<tr>
<td>6</td>
<td>Q17 Long term SP</td>
<td>0.638</td>
<td>0.425</td>
</tr>
<tr>
<td>7</td>
<td>Q19 CEO or Managing Director</td>
<td>0.694</td>
<td>0.020</td>
</tr>
<tr>
<td>8</td>
<td>Q22 Members of the Board</td>
<td>0.679</td>
<td>0.009</td>
</tr>
<tr>
<td>9</td>
<td>Q22 Industry peers</td>
<td>0.677</td>
<td>0.045</td>
</tr>
<tr>
<td>10</td>
<td>Q22 Local and State Gov</td>
<td>0.694</td>
<td>0.026</td>
</tr>
</tbody>
</table>
We ran the MCAR test in order to ensure that the new set of data complied with this statistic. The MCAR test resulted in a $p=.981$ therefore meeting this statistical requirement to proceed with the confirmatory factor analysis of the independent variables to ensure that these variables were reliable indicators of the HPCM constructs and dimensions (Nunnally, 1978).

5.2.1.4 Diagnostic of Randomness of the Missing Data Process-independent and Dependent Variables

It is important to ascertain the degree of randomness present in the missing data in order to determine the appropriate remedies available (Hair et al., 2006). There are two levels of randomness: missing at random (MAR) and missing completely at random (MCAR). Hair et al. suggest that only MCAR allows for the use of any remedy desired. The result of the MCAR test is indicated by an MCAR value with a non-significant statistical level ($p \geq .05$), showing that the observed pattern does not differ from a random pattern. We used the SPSS missing values test to determine the level of MCAR in our data base after the missing value analysis (37 independent plus 21 dependent variables). The SPSS test computed a significance statistical value of 1.000 ($p \geq .05$), therefore we can assume that our data can be classified as MCAR and therefore susceptible to the use of statistical remedies like imputation methods (likewise, pairwise, replaced by the mean).

5.2.1.5 Summary

We concluded that the data collected is suitable to be used for the factor analysis. As a result of this analysis our independent and dependent variables were reduced substantially, from 65 to 37 independent variables and from 28 to 21 dependent variables.

5.2.2 Factor Extraction

5.2.2.1 Objectives (Independent Variables)

As our main objective was to summarise most of the original information (variance) in a minimum number of factors for prediction purposes, we chose as an extraction method, the “factor component analysis method” over the “common factor
analysis” (as suggested by Hair et al., 2006). Pallant (2001) indicates that factor extraction involves determining the smallest number of factors that can be used to represent the inter-relations among a set of variables. We used Kaiser’s criterion or eigenvalue-latent root rule to determine the initial number of factors to be extracted. According to Hair et al., the rationale for the latent root/eigenvalue criterion is that any individual factor should account for the variance of at least a single variable if it is to be retained for interpretation.

5.2.2.2  Imputation Method

This research used the “replaced by the mean” and “pairwise imputation” methods to compute the final relevant statistics. The replaced by the mean imputation method was used for the factor analysis as it is the easiest way of providing all cases with complete information. This is on the understanding that the means substitution according to Hair et al. (2006) “… underestimates the variance estimates by using the mean for all missing data, the actual distribution of values is distorted by substituting the mean for the missing values and depresses the observed correlation because all missing data will have a single constant value.” In the factor analysis we used the replaced by the mean imputation method until we reduced the number of variables to the point where it became viable to use the pairwise method (point reached at the 21 variables mark). The pairwise method is a widely used technique that uses only valid data and does not replace the missing data, but instead imputes the distribution characteristics or relationships from every valid value (Hair et al.). The pairwise imputation method was used for our multi-regression analyses (MRA) calculations.

5.2.3  Factor Rotation and Interpretation

5.2.3.1  Independent Variables

An initial unrotated factor solution was computed to eliminate those independent variables with less than .45 cut-off loading. We analysed an unrotated factor component matrix and searched for a better solution by computing different types of factor rotations. Pallant (2001) sees the rotation of factor as a way that facilitates their interpretation. Pallant adds that the rotation does not change the underlying solution, but rather presents the pattern of loadings in a manner easier to interpret. A subsequent
series of rotated solutions using varimax, direct oblim, quartimax, equamax and promax methods were computed and analysed. However, the factor changes resulting from these rotations were minimal. We opted for the varimax rotation as this was also consistent with the crisis management literature and gave us a simpler and more meaningful model pattern (Hair et al., 2006). We initially used a replaced by the mean imputation method for the first set of rotations and as we reduced the number of independent variables we changed it to the pairwise deletion method (this method became viable with less than 21 independent variables). A total of 27 factors were extracted but only nine of them met the criteria of having eigenvalues greater than 1.0. Thus these nine factors were retained for further analysis. The nine factors accounted for 82.1 per cent of the variance.

A top cut-off of 0.900 and higher was used to eliminate the variables which may indicate collinearity. None of our variables fell under this category in the initial component and rotated matrix.

**Table 5.J: Cut-Off Loadings by Factor**

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
<th>F7</th>
<th>F8</th>
<th>F9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.675</td>
<td>0.650</td>
<td>0.625</td>
<td>0.600</td>
<td>0.575</td>
<td>0.550</td>
<td>0.525</td>
<td>0.500</td>
<td>0.500</td>
</tr>
</tbody>
</table>

A regressive cut-off loading of 0.675, slightly lower than the one suggested by Hair et al. (2006) from the factor F1 to a minimum of .500 (F9 to F14) was used to screen out variables which were weak indicators of the constructs and the dimensions to achieve a \( p \leq 0.05 \) significance with a power level of 80 per cent for a sample size of 50. This regressive cut-off loading has its basis on the suggestion by Hair et al. that a larger loading is needed, given a factor solution with a larger number of factors (see Table 5.K).

As a result of this initial analysis, we deleted six independent variables as these failed to reach their respective minimum cut-off limits: one from F1: Q19 spokesperson (.501), crisis team and crisis leader; one from F2: Q19 senior managers (.577); two from F3: Q16 crisis management (.533) and Q16 risk management (.480); one from F4: Q22 customer (.578); and finally one from F9: Q19 communication or PR (.568). As Hair et al. (2006:129) explain, their guidelines are only a starting point in a factor-loading
interpretation and that lower loadings should be included based on other considerations. This exercise reduced our number of independent variables from 27 to 21.

We computed a second varimax rotation with the remaining 21 independent variables. We obtained an HPCM value of .683 and a \( p=.001 \) with a total variance explained of 72.8 per cent contained in five factors. This percentage met the indicative 60 per cent lower limit criterion suggested by Hair et al. (2006).

The second rotation identified a loading of .903 for Q22 local and state media and national media. We also had low loadings for Q19 members of the board/council (less than .400), and Q22 interest groups (.434). We removed these four variables and rotated the matrix one more time.

The third rotation resulted in an HPCM .755 and a \( p=.000 \), explaining a variance of 75.2 per cent with five factors. In subsequent rotations we eliminated Q16 crisis communication and Q19 key technical people by increasing the cut-off loading to a very high .700 value for all the factors to bring these limits closer to the ones suggested by Hair et al. (2006) for small samples. We just made one exception. This was the case in Factor F4 with the variable Q48 lessons learned (.519) which failed to reach the cut-off loading of .700. We decided to keep this variable as it was considered both practical and statistically significant to explain part of the crisis history. Q48 lessons learned practical significance was highlighted in our qualitative study.

Practical significance is referred by Hair et al. (2006) as a non-mathematical means of assessing the results based on their usefulness.

The HPCM model after this final rotation analysis was left with four factors, making a total of 14 independent variables. This final rotated component matrix using the pairwise imputation method explained 74.98 per cent of the total variance percentage (see Table 5.0), well above the 60 per cent mark recommended by Hair et al. and had a KMO of .734 and a \( p=.000 \).
Table 5.K: Final Factor Rotation Matrix

<table>
<thead>
<tr>
<th>Independent variables/ Cut-off loadings</th>
<th>Rotated Component Matrix(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1</td>
</tr>
<tr>
<td>Q20 Internal communications</td>
<td>0.87</td>
</tr>
<tr>
<td>Q20 Media crisis</td>
<td>0.83</td>
</tr>
<tr>
<td>Q20 Issues management</td>
<td>0.82</td>
</tr>
<tr>
<td>Q20 Spokesperson coaching</td>
<td>0.78</td>
</tr>
<tr>
<td>Q20 Message development</td>
<td>0.76</td>
</tr>
<tr>
<td>Q20 Crisis management</td>
<td>0.68</td>
</tr>
<tr>
<td>Q19 Spokesperson</td>
<td></td>
</tr>
<tr>
<td>Q19 Crisis team</td>
<td></td>
</tr>
<tr>
<td>Q19 Crisis leader</td>
<td></td>
</tr>
<tr>
<td>Q19 Key technical people</td>
<td></td>
</tr>
<tr>
<td>Q19 Senior Managers</td>
<td></td>
</tr>
<tr>
<td>Q16 Crisis communication</td>
<td></td>
</tr>
<tr>
<td>Q16 Reputation management</td>
<td></td>
</tr>
<tr>
<td>Q17 Crisis communication</td>
<td></td>
</tr>
<tr>
<td>Q16 Crisis Management</td>
<td></td>
</tr>
<tr>
<td>Q16 Risk Management</td>
<td></td>
</tr>
<tr>
<td>Q22 Union</td>
<td></td>
</tr>
<tr>
<td>Q22 Staff members</td>
<td></td>
</tr>
<tr>
<td>Q22 Customers</td>
<td></td>
</tr>
<tr>
<td>Q17 Issues Mgt analysis</td>
<td></td>
</tr>
<tr>
<td>Q17 Risk management</td>
<td></td>
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<tr>
<td>Q22 National Media</td>
<td></td>
</tr>
<tr>
<td>Q22 Local Media and State Media</td>
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<td>Q22 Interest Groups</td>
<td></td>
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<tr>
<td>Q19 Members of the Board/Council</td>
<td></td>
</tr>
<tr>
<td>Q48 Lessons learned-Crisis History</td>
<td></td>
</tr>
<tr>
<td>Q19 Communication or PR</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.L: KMO Analysis Final Factor Rotation

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Table 5.M: Final Factor Rotation by Factor and Independent Variables

<table>
<thead>
<tr>
<th>Factor Number</th>
<th>Constructs</th>
<th>Dimensions</th>
<th>Independent Variables-Post Factor Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>Strategic Preparedness</td>
<td>Training/Contents</td>
<td>Q20 Crisis management</td>
</tr>
<tr>
<td>F1</td>
<td>Strategic Preparedness</td>
<td>Q20 Media crisis</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>Strategic Preparedness</td>
<td>Q20 Spokesperson coaching</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>Strategic Preparedness</td>
<td>Q20 Internal communications</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>Strategic Preparedness</td>
<td>Q20 Message development</td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>Strategic Preparedness</td>
<td>Q20 Issues management</td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>SP: Crisis Prevention Process/Documents</td>
<td>Q17 Issues Mgt analysis</td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>SP: Crisis Prevention Process/Documents</td>
<td>Q17 Risk management</td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>SP: Crisis Prevention Process/Documents</td>
<td>Q16 Reputation management</td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>Training/People</td>
<td>Q19 Crisis leader</td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>Training/People</td>
<td>Q19 Crisis team</td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>Relationships and Crisis History</td>
<td>Relationships Innercore/Crisis history</td>
<td>Q22 Staff members</td>
</tr>
<tr>
<td>F4</td>
<td>Relationships and Crisis History</td>
<td>Q22 Union</td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>Relationships and Crisis History</td>
<td>Q48 Lessons learned</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.N: Total Model Variance Explained by the Post-Factor Analysis Model

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.213</td>
</tr>
<tr>
<td>2</td>
<td>2.272</td>
</tr>
<tr>
<td>3</td>
<td>1.685</td>
</tr>
<tr>
<td>4</td>
<td>1.327</td>
</tr>
<tr>
<td>5</td>
<td>0.906</td>
</tr>
<tr>
<td>6</td>
<td>0.537</td>
</tr>
<tr>
<td>7</td>
<td>0.430</td>
</tr>
<tr>
<td>8</td>
<td>0.374</td>
</tr>
<tr>
<td>9</td>
<td>0.362</td>
</tr>
<tr>
<td>10</td>
<td>0.257</td>
</tr>
<tr>
<td>11</td>
<td>0.231</td>
</tr>
<tr>
<td>12</td>
<td>0.180</td>
</tr>
<tr>
<td>13</td>
<td>0.144</td>
</tr>
<tr>
<td>14</td>
<td>0.081</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

We ran the MCAR test on our 35 variables (14 independent and 21 dependent variables) one more time to ensure that the missing completely at random statistic (MCAR) fell
within an acceptable range (above $p = .05$). Our MCAR test had a positive result of a $p = .642$, clearing the way to proceed with our multiple regression analysis. According to Hair et al. the sample must have more observations than variables and the minimum sample size should be 50 observations. Our post-factor analysis resulted in a total of 35 variables with 50 observations. As such, this analysis met both criteria.

5.2.3.2 Dependent Variables

As the objective of the study was to have a detailed analysis of the relationships between our independent variables and our dependent variables, we decided not to run the factor analysis on our dependent variables (crisis outcomes). We also opted for this solution in order to avoid confusion of interpretations as some of the crisis outcomes are either positively or negatively correlated to the independent variables and measure tangible and non-tangible crisis outcomes with distinctive characteristics. For example, Q36, direct financial cost, measures a financial tangible outcome. Q36 direct financial costs were assessed as positive if rated as “excellent” meaning low direct financial costs as a consequence of the crisis, but if the outcome item “reputation” was also assessed as “excellent” this answer meant “high reputation levels” post-crisis. This approach to the grouping of dependent variables based on their characteristics makes their interpretation easier to understand. Table 5.O shows the set of dependent variables grouped by the crisis effect they were trying to measure. Table 5.P shows the dependent variables grouped by their nature of measurement (tangible and non-tangible).

Table 5.O: Dependent Variables by Type of Effect

<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
<th>Type of effect</th>
<th>Statistical Outcomes/ Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q36</td>
<td>Assessment</td>
<td>Overall-Direct Financial</td>
</tr>
<tr>
<td>2</td>
<td>Q36</td>
<td>Assessment</td>
<td>Overall-Revenue</td>
</tr>
<tr>
<td>3</td>
<td>Q36</td>
<td>Assessment</td>
<td>Overall Profit</td>
</tr>
<tr>
<td>4</td>
<td>Q36</td>
<td>Assessment</td>
<td>Overall-Reputation</td>
</tr>
<tr>
<td>5</td>
<td>Q36</td>
<td>Assessment</td>
<td>Overall-Staff Morale</td>
</tr>
<tr>
<td>6</td>
<td>Q38</td>
<td>Determination of outcome</td>
<td>Resignation of board members</td>
</tr>
<tr>
<td>7</td>
<td>Q38</td>
<td>Determination of outcome</td>
<td>Resignation of the CEO</td>
</tr>
<tr>
<td>8</td>
<td>Q38</td>
<td>Determination of outcome</td>
<td>Resignation of senior managers</td>
</tr>
<tr>
<td>9</td>
<td>Q38</td>
<td>Determination of outcome</td>
<td>Criminal charges to staff</td>
</tr>
<tr>
<td>10</td>
<td>Q38</td>
<td>Determination of outcome</td>
<td>Substantial organisational changes</td>
</tr>
<tr>
<td>11</td>
<td>Q38</td>
<td>Determination of outcome</td>
<td>Substantial policy changes</td>
</tr>
<tr>
<td>12</td>
<td>Q38</td>
<td>Determination of outcome</td>
<td>Suspension of share trading</td>
</tr>
</tbody>
</table>
5.3 Post-factor correlation analysis

This section analyses the four factors on the variables comprising the crisis outcomes construct in order to identify their associations. We used the Pearson correlation value (r) and its level of significance (p) to achieve this objective. The Pearson correlation describes the strength and the direction of the linear relationship between two variables (Pallant, 2001). A strong correlation does not imply causality just association. Pearson’s correlation coefficient takes on values from −1 to +1. Positive signs mean that as one variable increases so does the other. Negative correlations indicate that as one variable increases the other decreases. The size of the absolute value indicates the strength of the relationships. Values higher than .9 (+-)
denote collinearity. For the purpose of this study the value limits described in Table 5.Q were used when interpreting the Pearson correlation values (r):

### Table 5.Q: Frame of Reference: Bivariate Correlation

<table>
<thead>
<tr>
<th>Pearson correlation value (r)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (+) value between .000 and .300</td>
<td>Weak positive correlation</td>
</tr>
<tr>
<td>Positive (+) value between .301 and .500</td>
<td>Moderate positive correlation</td>
</tr>
<tr>
<td>Positive (+) value between .501 and .750</td>
<td>Strong positive correlation</td>
</tr>
<tr>
<td>Positive (+) value between .751 and .900</td>
<td>Very strong correlation</td>
</tr>
<tr>
<td>Positive (+) value &gt; .901</td>
<td>Positive Collinearity</td>
</tr>
<tr>
<td>Negative (-) value between -.000 and -.300</td>
<td>Weak negative</td>
</tr>
<tr>
<td>Negative (-) value between -.301 and -.500</td>
<td>Moderate negative correlation</td>
</tr>
<tr>
<td>Negative (-) value between -.501 and -.750</td>
<td>Strong negative correlation</td>
</tr>
<tr>
<td>Negative (-) value between -.751 and -.900</td>
<td>Very strong negative correlation</td>
</tr>
<tr>
<td>Negative (-) value &gt; -.901</td>
<td>Negative Collinearity</td>
</tr>
</tbody>
</table>

5.3.1 Inter-factor correlation analysis

The HPCM independent factors (see Table 5.M) were correlated among themselves to determine their Pearson correlation values (r) and their levels of significance (p) values (see Table 5.R). The Pearson correlation gave us a measurement of the “effect size” of individual variables as suggested by Hair et al. (2006).

The HPCM independent factors and variables (see Table 5.N) were also correlated with the dependent variables (see Table 5.U,5.V,5.W) to determine their level of significance (p).

The Factors F1, F3 and F4 were negatively correlated. F1 comprises the part of the strategic preparedness concerned with training contents. F2 includes processes and documents relating to the prevention of crises. F3 denotes the training of specific staff members (crisis leader and crisis team) and F4 the quality of the relationships (union and staff) prior to the crisis and the implementation of recommendations generated by previous crises (crisis history).
Table 5.R: Correlation Matrix of Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>REGR factor score 1 for analysis</th>
<th>REGR factor score 2 for analysis</th>
<th>REGR factor score 3 for analysis</th>
<th>REGR factor score 4 for analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F1 Training contents</strong></td>
<td>Pearson Correlation</td>
<td>Sig. (1-tailed)</td>
<td>N</td>
<td>1</td>
</tr>
<tr>
<td><strong>F2 SP processes and documents</strong></td>
<td>Pearson Correlation</td>
<td>Sig. (1-tailed)</td>
<td>N</td>
<td>.222</td>
</tr>
<tr>
<td><strong>F3 Training people</strong></td>
<td>Pearson Correlation</td>
<td>Sig. (1-tailed)</td>
<td>N</td>
<td>-.491(**)</td>
</tr>
<tr>
<td><strong>F4 Relationship/crisis history</strong></td>
<td>Pearson Correlation</td>
<td>Sig. (1-tailed)</td>
<td>N</td>
<td>-.414(*)</td>
</tr>
</tbody>
</table>

5.3.1.1 Independent Variables Multicollinearity Analysis

According to Hair (Hair et al 2006, page 257) highly collinear variables can distort the results substantially or make them quite unstable and thus non generalisable. Hair says that we can identify high collinearity by conducting a tolerance and VIF multicollinearity statistical test: “...the tolerance value is 1 minus the proportion of the variable’s variance explained by the other independent variables. Thus, a high tolerance value indicates little collinearity, and tolerance values approaching zero indicate that the variable is almost totally accounted for the other variable (high multicollinearity). The variance inflation factor (VIF) is the reciprocal of the tolerance value; thus we look for small VIF values as indicative of low correlation among variables.”

We calculated both statistics and obtained the following tolerance values:
Table 5.S: Multicollinearity Analysis-Independent Variables

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tolerance Value</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>.601</td>
<td>1.663</td>
</tr>
<tr>
<td>F2</td>
<td>.879</td>
<td>1.138</td>
</tr>
<tr>
<td>F3</td>
<td>.702</td>
<td>1.424</td>
</tr>
<tr>
<td>F4</td>
<td>.819</td>
<td>1.221</td>
</tr>
</tbody>
</table>

In order to test the extent of the degree of multicollinearity effect of F1 in our MRA, we run the regressions without factor F1 and we compared the results.

Table 5.T: Multicollinearity Analysis MRA Results Comparisons without F1

<table>
<thead>
<tr>
<th>HPCM Model</th>
<th>Statistical Outcome &amp; Dependent Variable</th>
<th>Significance</th>
<th>R²</th>
<th>Results without the F1</th>
<th>Results without the F1</th>
<th>p&gt;0.05</th>
<th>p&gt;0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q36</td>
<td>Assessment of technical/financial crisis costs</td>
<td>0.712</td>
<td>0.348</td>
<td>0.194</td>
<td>0.216</td>
<td>-0.002</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Assessment of morale</td>
<td>0.338</td>
<td>0.373</td>
<td>0.193</td>
<td>0.211</td>
<td>-0.003</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Assessment of profits</td>
<td>0.029</td>
<td>0.641</td>
<td>0.261</td>
<td>0.482</td>
<td>-0.10</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Assessment of reputation</td>
<td>0.022</td>
<td>0.867</td>
<td>0.261</td>
<td>0.482</td>
<td>-0.10</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Assessment of staff morale</td>
<td>0.063</td>
<td>0.993</td>
<td>0.261</td>
<td>0.482</td>
<td>-0.10</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Resignation of board members</td>
<td>0.459</td>
<td>0.629</td>
<td>0.193</td>
<td>0.372</td>
<td>-0.006</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>Resignation of the CEO</td>
<td>0.057</td>
<td>0.453</td>
<td>0.193</td>
<td>0.372</td>
<td>-0.009</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>Resignation of senior managers</td>
<td>0.044</td>
<td>0.388</td>
<td>0.193</td>
<td>0.372</td>
<td>-0.009</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>Criminal charges to staff</td>
<td>0.713</td>
<td>0.09</td>
<td>0.125</td>
<td>-0.007</td>
<td>-0.009</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Subsidiary organization changes</td>
<td>0.156</td>
<td>0.366</td>
<td>0.135</td>
<td>0.372</td>
<td>-0.009</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Subsidiary policy changes</td>
<td>0.048</td>
<td>0.382</td>
<td>0.193</td>
<td>0.372</td>
<td>-0.009</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>A regulatory inquiry</td>
<td>0.033</td>
<td>0.225</td>
<td>0.043</td>
<td>0.113</td>
<td>-0.001</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>A federal or state inquiry</td>
<td>0.917</td>
<td>0.369</td>
<td>0.135</td>
<td>0.372</td>
<td>-0.009</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>A regulatory litigation process</td>
<td>0.077</td>
<td>0.852</td>
<td>0.416</td>
<td>0.372</td>
<td>-0.009</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>Impact of defect financial costs</td>
<td>0.649</td>
<td>1.0</td>
<td>0.058</td>
<td>0.02</td>
<td>-0.029</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Impact of reputation</td>
<td>0.094</td>
<td>0.406</td>
<td>0.367</td>
<td>0.384</td>
<td>-0.003</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>Impact of profits</td>
<td>0.428</td>
<td>0.316</td>
<td>0.012</td>
<td>0.007</td>
<td>-0.006</td>
<td>yes</td>
</tr>
<tr>
<td>Q36</td>
<td>Impact of litigation</td>
<td>0.093</td>
<td>0.302</td>
<td>0.193</td>
<td>0.372</td>
<td>-0.009</td>
<td>no</td>
</tr>
<tr>
<td>Q36</td>
<td>Impact of senior managers</td>
<td>0.127</td>
<td>0.444</td>
<td>0.307</td>
<td>0.361</td>
<td>-0.003</td>
<td>no</td>
</tr>
</tbody>
</table>

Our MRA results were very similar, in some cases the $R^2$ values were one or two points higher or lower and most of the $p$ values remained within the accepted criteria of $p=\leq.05$. However these small differences did affect the results of four crisis outcomes. Two of them, Q36 assessment of profits and Q38 resignation of senior managers achieved a level of significance $p=\leq.05$ as both of them had $p$ values very close to the accepted criteria $p=0.059$ and $p=0.054$. The absence of F1 pushed them
within the p accepted limit. But the deletion of F1 had an opposite effect on Q38 Federal or State Inquiry and Q38 A prolonged civil litigation process passing from values of $p<.05$ to values of $p>.05$.

Based on these results, our analysis concluded that although we had a small collinearity effect distortion, this distortion did not affect our MRA results substantially. We decided from a content validity perspective to retain the F1 factor in our MRA analysis. The F1 independent variables contributed also to explain a deal of variance in the dependent variables.

### 5.3.1.2 Correlation Analysis between Independent and Dependent Variables

#### Table 5.U: Correlation Matrix between Independent Factors and Tangible Financial Dependent Variables

<table>
<thead>
<tr>
<th>Factors</th>
<th>Q36 Direct financial costs</th>
<th>Q36 Revenue</th>
<th>Q36 Profits</th>
<th>Q39 Direct financial costs-Impact</th>
<th>Q39 Revenue-Impact</th>
<th>Q39 Profit-Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>Pearson Correlation</td>
<td>-0.406</td>
<td>-0.272</td>
<td>-0.404</td>
<td>0.301</td>
<td>0.193</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>0.031</td>
<td>0.130</td>
<td>0.085</td>
<td>0.120</td>
<td>0.201</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>22</td>
<td>19</td>
<td>13</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>F2 SP processes and documents</td>
<td>Pearson Correlation</td>
<td>0.020</td>
<td>0.008</td>
<td>0.130</td>
<td>0.136</td>
<td>0.152</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>0.466</td>
<td>0.487</td>
<td>0.336</td>
<td>0.302</td>
<td>0.255</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>22</td>
<td>19</td>
<td>13</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>F3 Training people</td>
<td>Pearson Correlation</td>
<td>0.324</td>
<td>0.177</td>
<td>0.226</td>
<td>-0.245</td>
<td>-0.383</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>0.070</td>
<td>0.235</td>
<td>0.228</td>
<td>0.172</td>
<td>0.043</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>22</td>
<td>19</td>
<td>13</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>F4 Relationship/crisis history</td>
<td>Pearson Correlation</td>
<td>0.542</td>
<td>0.610</td>
<td>0.774</td>
<td>-0.351</td>
<td>-0.584</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>0.005</td>
<td>0.003</td>
<td>0.001</td>
<td>0.083</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>22</td>
<td>19</td>
<td>13</td>
<td>17</td>
<td>21</td>
</tr>
</tbody>
</table>

An analysis of the correlation between the independent factors and our tangible financial, tangible non-financial and non-tangible outcomes was conducted. All the independent factors and variables show strong correlations with the dependent ones at significance levels ($p=.001$ and $p =.005$; 1 tailed), most of them having Pearson correlation values ($r$) of .3 or higher. There are 25 correlations $>.3$ and 12 correlations $<.3$.  

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Table 5.V: Correlation Matrix between Independent Factors and Non-Tangible Dependent Variables

Table 5.V.1: Correlation Matrix between Independent Factors and Tangible Non-Financial Dependent Variables

Table 5.V.2: Correlation Matrix between Independent Factors and Tangible Non-Financial Dependent Variables
5.3.2 Correlation Factors Analysis – Tangible Financial Outcomes

The following table summarises the significant correlation between the four factors and the tangible financial outcomes:

Table 5.W: Correlation Matrix between Independent Factors and Tangible Financial Dependent Variables

<table>
<thead>
<tr>
<th>Correlations Factors/ Tangible financial crisis outcomes</th>
<th>F1 Training contents</th>
<th>F2 SP processes and documents</th>
<th>F3 Training people</th>
<th>F4 Relationship/crisis history</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q36 Direct financial costs Pearson Correlation</td>
<td>-0.406</td>
<td>0.021</td>
<td>0.329</td>
<td>0.542</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.031</td>
<td>0.466</td>
<td>0.070</td>
<td>0.005</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Q36 Revenue Pearson Correlation</td>
<td>-0.272</td>
<td>0.008</td>
<td>0.177</td>
<td>0.610</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.130</td>
<td>0.487</td>
<td>0.235</td>
<td>0.003</td>
</tr>
<tr>
<td>N</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Q36 Profits Pearson Correlation</td>
<td>-0.404</td>
<td>0.130</td>
<td>0.226</td>
<td>0.774</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.085</td>
<td>0.336</td>
<td>0.228</td>
<td>0.001</td>
</tr>
<tr>
<td>N</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Q39 Direct financial costs- Impact Pearson Correlation</td>
<td>0.301</td>
<td>0.136</td>
<td>-0.245</td>
<td>-0.351</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.120</td>
<td>0.302</td>
<td>0.172</td>
<td>0.083</td>
</tr>
<tr>
<td>N</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Q39 Revenue-Impact Pearson Correlation</td>
<td>0.193</td>
<td>0.152</td>
<td>-0.383</td>
<td>-0.584</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.201</td>
<td>0.255</td>
<td>0.043</td>
<td>0.003</td>
</tr>
<tr>
<td>N</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Q39 Profit-Impact Pearson Correlation</td>
<td>0.399</td>
<td>0.152</td>
<td>-0.294</td>
<td>-0.499</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.079</td>
<td>0.302</td>
<td>0.153</td>
<td>0.035</td>
</tr>
<tr>
<td>N</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

5.3.2.1 Bivariate Correlation Analysis – Q36 Direct Financial Costs

The first analysis focuses on the dependent variable Q36 direct financial costs prior to computing the regression model.

Two out of four factors are within the Pearson correlation coefficient range of $r=.406$ and $r=.542$ (positive/negative) at significance levels of $p=.005$ and $p=.031$ respectively. One was positive and one negative. F1 training contents had a negative value. F4 relationship/crisis history had a positive value. The F2 and F3 factors had no correlations at significance levels.
Table 5.X: Correlation Q36 Direct Financial Costs

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>-.406</td>
<td>There is a moderate and significant negative correlation between the content of the crisis training and the assessment of direct financial costs of the crisis. Low values of training (i.e. in depth training in media crisis were correlated with high values of the direct financial cost of the crisis (direct financial costs assessed as “very bad”)</td>
</tr>
<tr>
<td>F4 Relationship / crisis history</td>
<td>.542</td>
<td>There is a strong and significant positive correlation between the relationships’ quality of the following stakeholders: union and staff members, the lessons learned from previous crises and the direct financial costs of the crisis. If the relationship was excellent and the organisation always took the recommendation made from previous crises, the direct costs were assessed as excellent (which in this case it means that the costs were lower than what was expected by the organisation) and conversely.</td>
</tr>
</tbody>
</table>

5.3.2.2 Bivariate Correlation Analysis – Q36 Revenue

This correlation analysis focuses on the dependent variable Q36 revenue prior to computing the regression model. Only one out of four factors is strongly correlated with the dependent variable revenue with a Pearson correlation coefficient value of r=.610 at the (p) .003 level of significance.

Table 5.Y: Correlation Q36 Revenue

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F4 Relationship / crisis history</td>
<td>.610</td>
<td>There is a strong and significant positive correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the impact on revenue. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the revenue was assessed as “excellent” and vice versa. Low values of stakeholders relationships and lessons learned were correlated to low values of revenue and vice versa.</td>
</tr>
</tbody>
</table>
5.3.2.3 **Bivariate Correlation Analysis – Q36 Profits**

This correlation analysis focuses on the dependent variable Q36 profits prior to computing the regression model. One out of four factors had a strong Pearson value of \( r = .774 \) and at the \( p = .001 \) level of significance.

**Table 5.Z: Correlation Q36 Profits**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F4 Relationship/crisis history</td>
<td>.774</td>
<td>There is a very strong and significant positive correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and profits. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the profits was assessed as “excellent” and vice versa. Low values of stakeholders relationships and lessons learned were correlated to low values of profits and vice versa.</td>
</tr>
</tbody>
</table>

5.3.2.4 **Bivariate Correlation Analysis – Q39 Direct Financial Costs**

This correlation analysis focuses on the dependent variable Q39 direct financial costs prior to computing the regression model. No significant Pearson correlation was identified. The factor F4 had the lowest level of significance of \( p = .083 \).

5.3.2.5 **Bivariate Correlation Analysis – Q39 Revenue**

Two significant Pearson correlations were identified, F3 with \( r = -.383 \), F4 with \( r = -.584 \) and at the \( p = .043 \) and \( p = .003 \) levels of significance respectively.

**Table 5.Aa: Correlation Q39 Revenue**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3 Training people</td>
<td>-.383</td>
<td>There is a moderate and significant negative correlation between the training of people and revenue. If the training was</td>
</tr>
</tbody>
</table>
assessed as “in depth” the revenue impact reached historically high levels and vice versa. Low values of training people and lessons learned were correlated to high values of revenues and vice versa.

F4 Relationship/crisis history  
-0.584  
There is a strong and significant negative correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the impact on revenue. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the revenue was assessed as having reached historically high levels. Low values of stakeholders relationships and lessons learned were correlated to high values of revenue-impact and vice versa.

5.3.2.6 Bivariate Correlation Analysis – Q39 Profit

One significant Pearson correlation was identified, F4 with a r=-.499, and a p=0.035 level of significance.

Table 5.Ab: Correlation Q39 Profits

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F4 Relationship/crisis history</td>
<td>-0.499</td>
<td>There is a moderate and significant negative correlation between the relationships’ quality of the union and staff members, the lessons learned from previous crises and the impact on profits. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the impact on profit was assessed as having reached historically high levels. Low values of stakeholders relationships and lessons learned were correlated to high values of profits-impact and vice versa.</td>
</tr>
</tbody>
</table>
5.3.3 Correlation Factors Analysis – Tangible Financial Outcomes

The following table summarises the significant correlation between the four factors and the tangible non-financial outcomes:

<table>
<thead>
<tr>
<th>Correlations Factors/ Tangible non-financial crisis outcomes</th>
<th>F1 Training contents</th>
<th>F2 SP processes and documents</th>
<th>F3 Training people</th>
<th>F4 Relationship/ crisis history</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q38 Resignation of board members</td>
<td>Pearson Correlation 0.496</td>
<td>0.263</td>
<td>-0.291</td>
<td>-0.547</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.011</td>
<td>0.125</td>
<td>0.101</td>
<td>0.005</td>
</tr>
<tr>
<td>N</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Q38 Resignation of the CEO</td>
<td>Pearson Correlation 0.478</td>
<td>0.256</td>
<td>-0.296</td>
<td>-0.584</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.014</td>
<td>0.131</td>
<td>0.097</td>
<td>0.003</td>
</tr>
<tr>
<td>N</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Q38 Resignation of senior managers</td>
<td>Pearson Correlation 0.348</td>
<td>0.064</td>
<td>-0.437</td>
<td>-0.535</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.052</td>
<td>0.386</td>
<td>0.019</td>
<td>0.004</td>
</tr>
<tr>
<td>N</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Q38 Criminal charges to staff members</td>
<td>Pearson Correlation -0.060</td>
<td>0.148</td>
<td>0.244</td>
<td>0.162</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.395</td>
<td>0.256</td>
<td>0.137</td>
<td>0.235</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Q38 The appointment of independent administrators</td>
<td>Pearson Correlation -0.015</td>
<td>-0.443</td>
<td>-0.545</td>
<td>0.178</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.475</td>
<td>0.022</td>
<td>0.005</td>
<td>0.220</td>
</tr>
<tr>
<td>N</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Q38 Substantial org changes</td>
<td>Pearson Correlation -0.053</td>
<td>0.020</td>
<td>-0.346</td>
<td>-0.250</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.405</td>
<td>0.463</td>
<td>0.053</td>
<td>0.125</td>
</tr>
<tr>
<td>N</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Q38 Substantial policy changes</td>
<td>Pearson Correlation 0.124</td>
<td>-0.088</td>
<td>-0.204</td>
<td>-0.592</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.281</td>
<td>0.341</td>
<td>0.170</td>
<td>0.001</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Q38 A regulators’ enquiry</td>
<td>Pearson Correlation 0.150</td>
<td>-0.385</td>
<td>-0.061</td>
<td>-0.062</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.253</td>
<td>0.038</td>
<td>0.394</td>
<td>0.392</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Q38 A Federal or State enquiry</td>
<td>Pearson Correlation -0.170</td>
<td>-0.240</td>
<td>-0.460</td>
<td>-0.217</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.225</td>
<td>0.141</td>
<td>0.016</td>
<td>0.166</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Q38 A prolonged civil litigation</td>
<td>Pearson Correlation -0.483</td>
<td>-0.543</td>
<td>-0.117</td>
<td>0.134</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed) 0.010</td>
<td>0.004</td>
<td>0.297</td>
<td>0.272</td>
</tr>
<tr>
<td>N</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
</tbody>
</table>
5.3.3.1  Bivariate Correlation Analysis – Q38 Resignation of Board Members

Two significant Pearson correlations were identified, F1 and F4 with r=.496, r=-.547 at p=.011 and p=.005 levels of significance respectively.

Table 5.Ad: Correlation Q38 Resignation of Board Members

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>.496</td>
<td>There is a moderate and significant positive correlation between the content of the crisis training and the resignation of board members. Low values of training (i.e. in depth training in media crisis) were correlated with high values of the resignation of board members. In depth training was correlated with the resignation of board members. It was therefore the main determinant factor in the resignation of board members.</td>
</tr>
<tr>
<td>F4 Relationship/crisis history</td>
<td>-.547</td>
<td>There is a strong and significant negative correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the resignation of board members. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the high-profile crisis was correlated with high values in the resignation of members, therefore assessing the high-profile crisis as having no effect on this kind of event. and vice versa.</td>
</tr>
</tbody>
</table>

5.3.3.2  Bivariate Correlation Analysis – Q38 Resignation of the CEO or Managing Director

Two significant Pearson correlations were identified: F1 and F4 with r=.478, r=-.584 at p=.014 and p=.003 levels of significance respectively.

Table 5.Ae: Correlation Q38 Resignation of the CEO or Managing Director

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
</table>
There is a moderate and significant positive correlation between the content of the crisis training and the resignation of the CEO/managing director. Low values of training (i.e. in depth training in media crisis) were correlated with high values of the resignation of the CEO.

There is a strong and significant negative correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the resignation of the CEO/managing director. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the high-profile crisis was correlated with high values in the resignation the CEO/managing director, therefore assessing the high-profile crisis as having no effect in this kind of events and vice versa.

5.3.3.3 Bivariate Correlation Analysis – Q38 Resignation of Senior Managers

Two significant Pearson correlations were identified: F1 and F4 with $r=-.437$, $r=-.535$ at $p=.014$ and $p=.003$ levels of significance respectively.

**Table 5.Af: Correlation Q38 Resignation of Senior Managers**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>-.437</td>
<td>There is a moderate and significant negative correlation between training contents and the resignation of senior managers. If the training was “in-depth” (low values) the high-profile crisis was correlated with high values in the resignation of senior managers (not determinant at all) therefore assessing the high-profile crisis as having no effect on this kind of event and vice versa.</td>
</tr>
<tr>
<td>F4 Relationship/crisis history</td>
<td>-.535</td>
<td>There is a strong and significant negative correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the resignation of the CEO/managing director. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the high-profile crisis was correlated with high values in the resignation the CEO/managing director, therefore assessing the high-profile crisis as having no effect in this kind of events and vice versa.</td>
</tr>
</tbody>
</table>
crises and the resignation of the CEO/managing director. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises (low values), the high-profile crisis was correlated with high values in the resignation the CEO/managing director, therefore assessing the high-profile crisis as having no effect on this kind of event and vice versa.

5.3.3.4  Bivariate Correlation Analysis – Q38 Criminal Charges to Staff

No significant Pearson correlations were identified.

5.3.3.5  Bivariate Correlation Analysis – Q38 Appointment of Independent Administrators

Two significant Pearson correlation were identified. The factor F2 had r=-.443 at p=.022. The factor F3 had a strong r=-.545 at p=.005

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2 SP processes and documents</td>
<td>-.443</td>
<td>There is a moderate and significant negative correlation between the SP processes and documents and the appointment of independent administrators. If the SP processes and documents was assessed as “extremely useful” to minimise the negative effects of the crisis, the appointment of independent administrators was assessed as being “not at all determined” by the high-profile crisis and vice versa. Low values of SP processes and documents were correlated to high values for the appointment of independent administrators.</td>
</tr>
<tr>
<td>F3 Training people</td>
<td>-.545</td>
<td>There is a moderate and significant negative correlation between the training of people and the appointment of independent administrators. If the training was assessed as “in-depth” the appointment of independent administrators was not determined at all by the high-profile crisis and vice versa. Low values of training people and lessons learned were correlated to high values of the appointment of independent administrators.</td>
</tr>
</tbody>
</table>
One significant Pearson correlation was identified. The factor F4 had a strong $r = -0.592$ at $p = 0.001$

**Table 5.Ah: Correlation Q38 Substantial Policy Changes**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F4 Relationship/crisis history</td>
<td>-0.592</td>
<td>There is a strong and significant negative correlation between the relationships’ quality of the union and staff members, the lessons learned from previous crises and substantial policy changes. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises (low values), then the high-profile crisis was correlated with high values in the substantial policy changes outcome, therefore assessing the high-profile crisis as having no effect on this kind of event and vice versa.</td>
</tr>
</tbody>
</table>

No significant Pearson correlation was identified. Although the factor F3 had a strong $r = -0.346$ at $p = 0.053$ (slightly over our desired target of .05).

One significant Pearson correlation was identified. The factor F2 had a moderate $r = -0.385$ at $p = 0.038$.

**Table 5.Ai: Correlation Q38 A Regulator Enquiry**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2 SP processes and documents</td>
<td>-0.385</td>
<td>There is a moderate and significant negative correlation between the SP processes and documents and establishment of a regulator’s enquiry. If the SP processes and documents was assessed as “extremely useful” to minimise the negative effects of the crisis, the</td>
</tr>
</tbody>
</table>
establishment of a regulator’s enquiry was assessed as being “not at all determined” by the high-profile crisis and vice versa. Low values of SP processes and documents were correlated to high values for establishment of a regulator’s enquiry.

5.3.3.9 Bivariate Correlation Analysis – Q38 A Federal or State Enquiry

One significant Pearson correlation was identified. The factor F3 had a moderate $r=-.460$ at $p=.016$

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3 Training people</td>
<td>-.460</td>
<td>There is a moderate and significant negative correlation between the training people variable and establishment of a federal or a state enquiry. Low values of training people were correlated to high values for the establishment of a federal or a state enquiry and vice versa. If the staff was trained “in-depth” the establishment of potential federal or state enquiries was not determined at all by the high-profile crisis.</td>
</tr>
</tbody>
</table>

5.3.3.10 Bivariate Correlation Analysis – Q38 A Prolonged Civil Litigation Process

One significant Pearson correlation was identified. The factor F3 had a moderate $r=-.460$ at $p=.016$.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>-.483</td>
<td>There is a moderate and significant negative correlation between the training content variable and a prolonged civil litigation process. Low values of training contents were correlated to high values for a prolonged civil litigation process and conversely. If the staff was trained “in-depth” in certain areas a prolonged civil litigation process was not determined at all by the high-profile crisis.</td>
</tr>
</tbody>
</table>
There is a strong and significant negative correlation between SP processes and documents variable and a prolonged civil litigation process. Low values of SP processes and documents were correlated to high values for a prolonged civil litigation process and conversely. If certain SP processes and documents were considered as useful to minimise the negative crisis outcomes, then the prolonged civil litigation process was not determined at all by the high-profile crisis.

5.3.4 Correlation Factors Analysis – Non-Tangible Financial Outcomes

The following table summarises the significant correlation between the four independent factors and the non-tangible crisis outcomes:

Table 5.4: Correlation Matrix between Independent Factors and Non-Tangible Dependent Variables

<table>
<thead>
<tr>
<th>Correlations Factors/Non-tangible crisis outcomes</th>
<th>F1 Training contents</th>
<th>F2 SP processes and documents</th>
<th>F3 Training people</th>
<th>F4 Relationship/crisis history</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q36 Reputation General</td>
<td>Pearson Correlation</td>
<td>-0.533</td>
<td>0.216</td>
<td>0.656</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.004</td>
<td>0.156</td>
<td>0.000</td>
<td>0.023</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Q36 Staff morale</td>
<td>Pearson Correlation</td>
<td>-0.493</td>
<td>0.302</td>
<td>0.592</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.007</td>
<td>0.076</td>
<td>0.001</td>
<td>0.015</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Q39 Reputation-Impact</td>
<td>Pearson Correlation</td>
<td>0.401</td>
<td>-0.250</td>
<td>-0.556</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.026</td>
<td>0.120</td>
<td>0.002</td>
<td>0.169</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Q39 Staff morale-Impact</td>
<td>Pearson Correlation</td>
<td>0.365</td>
<td>-0.123</td>
<td>-0.625</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>0.040</td>
<td>0.284</td>
<td>0.001</td>
<td>0.032</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

5.3.4.1 Bivariate Correlation Analysis – Q36 Reputation (Assessment)

Three significant Pearson correlations were identified. The factor F1 had a moderate r=-.533 at p=.004. The factor F3 had a moderate r=656 at p=.000 and factor F4 had a moderate r=.413 at p=.023.
Table 5.Am: Correlation Q36 Reputation

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>-.533</td>
<td>There is a strong and significant negative correlation between the training content variable and reputation. Low values of training contents were correlated to high values for reputation and conversely. If the staff was trained “in-depth” in certain areas the reputation was assessed as “very bad” and vice versa.</td>
</tr>
<tr>
<td>F3 Training people</td>
<td>.656</td>
<td>There is a strong and significant positive correlation between the level of training of key people and the reputation outcomes. Low values of training people were correlated positively to low values for reputation outcomes and conversely. If the training of certain people was assessed as in-depth then the reputation outcomes was assessed as excellent.</td>
</tr>
<tr>
<td>F4 Relationship/crisis history</td>
<td>.413</td>
<td>There is a moderate and significant positive correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the reputation outcomes. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, reputation outcomes was assessed as being excellent. Low values of stakeholders’ relationships and lessons learned were correlated to low values of reputation outcomes and vice versa.</td>
</tr>
</tbody>
</table>

5.3.4.2 Bivariate Correlation Analysis – Q36 Staff Morale (Assessment)

Three significant Pearson correlations were identified. The factor F1 had a moderate r= -.493 at p=.007. The factor F3 had a strong r=.592 at p=.001 and factor F4 had a moderate r=.444 at p=.015.

Table 5.An: Correlation Q36 Staff Morale

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>-.493</td>
<td>There is a moderate and significant negative correlation</td>
</tr>
</tbody>
</table>
between the training content variable and staff morale. Low values of training contents were correlated to high values for staff morale and vice versa. If the staff was trained “in-depth” in certain areas the staff morale was assessed as “reaching historically high levels” and vice versa.

F3 Training people | .592 | There is a strong and significant positive correlation between the level of training of key people and staff morale outcomes. Low values of training people were correlated positively to low values for staff morale outcomes and conversely. If the training of certain people was assessed as in-depth then the staff morale outcomes was assessed as excellent.

F4 Relationship/crisis history | .444 | There is a moderate and significant positive correlation between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the staff morale outcomes. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, staff morale outcomes was assessed as being excellent. Low values of stakeholders relationships and lessons learned were correlated to low values of staff morale outcomes and vice versa.

5.3.4.3 Bivariate Correlation Analysis – Q39 Reputation (Impact)

Three significant Pearson correlations were identified. The factor F1 had a moderate r=-.401 at p=.026. The factor F3 had a moderate r=.556 at p=.002.

Table 5.Ao: Correlation Q39 Reputation

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>.401</td>
<td>There is a moderate and significant positive correlation between the training content variable and reputation impact. Low values of training contents were correlated to low values for reputation and vice versa. If the staff was trained “in-depth” in certain areas the reputation was assessed as reaching historic low levels and vice versa.</td>
</tr>
</tbody>
</table>
This outcome was unexpected.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3 Training people</td>
<td>-.556</td>
<td>There is a strong and significant negative correlation between SP processes and documents variable and reputation impact outcomes. Low values of SP processes and documents were correlated to high values for reputation impact outcomes and conversely. If certain SP processes and documents were considered as useful to minimise the negative crisis outcomes, then the reputation outcomes were assessed as having reached historically high levels and vice versa.</td>
</tr>
</tbody>
</table>

5.3.4.4 Bivariate Correlation Analysis – Q39 Staff Morale (Impact)

Three significant Pearson correlations were identified. The factor F1 had a moderate r=.365 at p=.040. The factor F3 had a strong r=-.625 at p=.001 and factor F4 had a moderate r=-.383 at p=.032.

Table 5.4p: Correlation Q39 Staff Morale

<table>
<thead>
<tr>
<th>Factor</th>
<th>Pearson Correlation Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Training contents</td>
<td>.365</td>
<td>There is a moderate and significant positive correlation between the training content variable and staff morale-impact. Low values of training contents were correlated to low values for staff morale and vice versa. If the staff was trained “in-depth” in certain areas the staff morale was assessed as “having reached historically low levels” and vice versa. This result was unexpected.</td>
</tr>
<tr>
<td>F3 Training people</td>
<td>-.625</td>
<td>There is a strong and significant negative correlation between SP processes and documents variable and staff morale impact. Low values of SP processes and documents were correlated to high values for staff morale impact and vice versa. If certain SP processes and documents were considered as useful to minimise the negative crisis outcomes, then the staff morale impact was assessed as having reached historically high levels.</td>
</tr>
<tr>
<td>F4 Relationship/crisis</td>
<td>-.383</td>
<td>There is a moderate and significant negative correlation</td>
</tr>
</tbody>
</table>
between the relationships’ quality of the following: union and staff members, the lessons learned from previous crises and the staff morale impact. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, staff morale impact was assessed as having reached historically high levels. Low values of stakeholders’ relationships and lessons learned were correlated to high values of staff morale outcomes and vice versa.

5.4 MRA analysis methodology

The MRA procedure outlined in Chapter 3 was applied in this section to analyse the predictive ability of our HPCM model and relationships among the predictor and criterion variables from a statistical point of view (see Table 3.1 High-profile Crisis Model). This section aims to:

a) test the validity and reliability of the HPCM modified model (post-factor analysis) by testing hypothesis $H1$ to $H3$ and accepting or rejecting the null ($H_0$) respective hypotheses.

b) determine which independent variables (dimensions and practices) were important in predicting strong associations and direction with the crisis outcomes by analysing the regression coefficients of accepted alternative hypotheses (from $H1$ to $H3$).

c) identify significant multivariate assumption violations and take remedies if/when appropriate.

This analysis was carried out having in mind the statistical limitations of working with a small number of observations (50) derived from a small high-profile crisis population (140 approximately). The results obtained from subsets of the data were calculated for indicative purposes only.
5.4.1 Regression Main Statistics

For evaluation and predicting purposes we considered the *adjusted* coefficient of determination ($R^2$) instead of the coefficient of determination ($R^2$) value as the adjusted $(R^2)$ value represents, according to Hair et al. (2006) the modified measure of the coefficient of determination that takes into account the *number of independent variables* included in the regression equation and *the sample size*. Although the addition of independent variables will always cause the coefficient of determination to rise, the adjusted coefficient of determination may fall if the added independent variables have little explanatory power or if the degrees of freedom become too small. Hair et al add that this statistic is quite useful for comparisons between equations with *different numbers of independent variables, differing numbers of dependent variables, different sample size or both.*

The Beta coefficient ($\beta$), according to Hair et al.(2006), known also as the standardised regression coefficient, allows for a direct comparison between the coefficients as to their relative explanatory power of the dependent variable (see Table 5.Aq). Pallant (2001) further explains that “standardised” means that the values for each of the different variables have been converted to the same scale so that we can compare them.

Pallant says that the F statistic level of significance ($p$) value tell us whether this variable is making a statistically significant *unique* contribution to the prediction of the dependent variable. Values of less than $p\leq0.05$ mean that the variable is making a significant contribution to the prediction of the dependent variable.

A standardised residual value (srv) analysis was conducted in each case but only values $-2.8 \leq srv>2.8$ were noted and analysed in detail further. Values outside $-2.8 \leq srv>2.8$ indicated a serious violation on the MRA normality assumption. In those cases we deleted the dependent variable from our MRA analysis. We only identify Q38 Appointment of Independent Administrators over this limit. Histograms, normal probability plots and scattergrams, were included at the end of each regression using the enter method.

5.4.2 Regression HPCM Model Method of Analysis

We conducted the MRA hypothesis validation analysis based on the following methodology:
a) We regressed the model’s four factors to determine whether or not there was a relationship between the overall HPCM model and the individual dependent variables strong enough to qualify as a model with predicting characteristics. We tested this relationship using the conventionally accepted statistical procedure described below:

- By testing $H_0$ (null hypothesis): the independent variable is not a significant predictor of the response (i.e. no effect)
- $H_n$ ($n=$number; alternative hypothesis): the independent variable is a significant predictor of the response (i.e. an effect).

So if we got a small F value of $p \leq .05$ known as “the level of significance”, we rejected the null hypothesis ($H_0$) and concluded that there was a significant effect of the independent variable on the response and as a consequence we supported the alternative hypothesis. If we got a large F value of $p > 0.05$ we retained (or accepted) the null hypothesis ($H_0$) and concluded no effect. The only exception to this approach was when we detected unacceptable standardised residual values (srv). The standardised residual value statistic (srv) determines whether the variables were conforming to the distributional MRA assumption. We set an upper and lower limits of $-2.8 < \text{srv} > 2.8$, based on Hair (Hair et al, 2006) “...typically, standardized residuals less than 2.5 do not suggest a problem. Conversely, residuals greater than 4.0 raise a red flag and suggest a potentially unacceptable degree of error. The most likely, but not automatic response, is dropping one of the items associated with a residual greater than 4.0. Standardised residuals between 2.5 to 4.0 deserve some attention, but may not suggest any changes to the model if no other problems are associated with those two items”.

b) We regressed the model’s four factors to determine whether the moderator variable “size” influenced significantly the key statistical indicators and their impact on the acceptance or rejection of the hypothesis. We divided the organisations by size in two groups. We carried out an MRA analysis using the four factors’ scores calculated by the SPSS program resulting from our factor analysis using the “enter” method and the “pairwise” imputation method for
missing values. The first one includes organisations with less than 500 equivalent full-time employees (EFT) and the second group with 501 or more EFT employees.

c) We regressed the model’s four factors to determine whether by using the *backward method* of the MRA it was possible to identify the factors that contributed *the least* and *the most* to explain the variance, and whether the elimination of certain factor had a strong influence on key statistical indicators. We noted when the deletion of more than two factors produced an over-fitting effect on our model. This analysis was conducted for explanatory reasons. We *did not* reject or accept any of the null hypotheses $H_0$ based on the MRA’s backward statistical results.

d) We analysed the MRA results to identify potential violations of the assumption related to multivariate analysis (outliers, normality, homoscedasticity and independence of residuals). A discussion of the relevant statistics was presented *only* on those cases where the computed values fell over our limits of tolerance for each individual hypothesis (an analysis of the standardised residual values, collinearity analysis and outliers by computing the Mahalanobis and Cook statistics—see Table 5Aq).

This methodology was used consistently throughout our analysis when testing the main and working hypotheses.

### 5.4.3 Key Predictor and Multivariate Analysis Assumption Statistics

In order to accept or reject our null hypotheses ($H_0$) we relied on a number of key statistics computed by the SPSS program. These statistics are analysed and explained in depth by Hair et al. (2006) and Pallant (2001). In order to provide the reader with a frame of reference we summarised in *Table 5Aq* these key statistics and the way we interpreted these values for the purpose of this research.
**Table 5.Aq: Summary of Key Statistics and Interpretations**

<table>
<thead>
<tr>
<th>Type of Error</th>
<th>Statistic</th>
<th>Symbol</th>
<th>Limits of tolerance</th>
<th>Measurement / Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Level of Significance of the F statistic</td>
<td>$p$</td>
<td>$p \leq 0.05$</td>
<td>Type error I level of maximum $p \leq 0.05$. (If higher we accepted the null hypothesis). However, levels between $0.05 &gt; p \leq 10$ were noted for further studies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Error</th>
<th>Statistic</th>
<th>Symbol</th>
<th>Limits of tolerance</th>
<th>Measurement / Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Effect Size</td>
<td>$r$</td>
<td>Pearson correlation ($r) \geq 0.300$</td>
<td>It is based on the correlation between the variables if higher that .3 we will consider it as significant.</td>
</tr>
<tr>
<td>II</td>
<td>Beta standardised</td>
<td>$\beta$ standardised</td>
<td>Values closer to “±1” or “-1” means that their relative explanatory power is substantial for that particular factor/variable, conversely values closer to zero means the opposite (ignoring any negative signs out the front)</td>
<td>Statistic that converts the values for each different variables to the same scale so we can compare them and identify the independent variable that makes the strongest unique contribution to explaining the dependent variable. (Pallant 2001). This research will consider values higher than .150 (ignoring any negative signs) as significant.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Error</th>
<th>Statistic</th>
<th>Symbol</th>
<th>Limits of tolerance</th>
<th>Measurement / Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicting statistic</td>
<td>Adjusted coefficient of determination. Predicting power</td>
<td>$R^2$ adjusted</td>
<td>Positive $R^2$ values between .000 and .10 will be considered as having a very poor predictive power. Positive $R^2$ adjusted</td>
<td>Represents the modified measure of the coefficient of determination that takes into account the number of independent variables included in the regression equation and the sample size. If the level of</td>
</tr>
</tbody>
</table>
values \(0.01 < r < 0.10\) were considered as having a very poor predictive power.  
**Positive** \(R^2\) adjusted values between \(0.11\) and \(0.19\) were considered as having a poor predictive power.  
**Positive** \(R^2\) adjusted values between \(0.20\) and \(0.25\) were considered as having moderate predictive power.  
**Positive** \(R^2\) adjusted values higher than \(0.26\) were considered as having strong predictive power.

If the significance was <0.05, then any adjusted \(R^2\) positive value was sufficient to reject the null hypothesis (\(H_0\)) but the strength of its predictive power depends on the magnitude of this adjusted \(R^2\) value.

<table>
<thead>
<tr>
<th>t statistic</th>
<th>t &gt; .000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normality</strong></td>
<td>Standardized residuals values</td>
</tr>
<tr>
<td>Positive or negative values higher than (0.000). The higher the values the most significant to explain their individual contribution to the dependent variable in relation to the other categories.</td>
<td></td>
</tr>
</tbody>
</table>

Test statistic that assesses the statistical significance between two groups on a single dependent variable. Identifies the major items contributing to the variance and its magnitude.

If the value was below 2.5 the result was accepted without further analysis.  
If the value was between 2.5 and 2.8 the results were flagged and analysed further. Values higher than 2.8 implied a serious problem with the model as these indicate a clear violation of the assumption of normality.

\(\text{Normality} \quad \text{Standardized residuals values} \quad \text{Positive or negative values between } -2.8 \leq \text{srv} \geq 2.8 \text{ were considered as acceptable.} \)  

\(\text{Normality} \quad \text{Standardized residuals values} \quad \text{Positive or negative values between } -2.8 \leq \text{srv} \geq 2.8 \text{ were considered as acceptable.} \)
normality and it was interpreted as sufficient reason to reject the hypothesis. Hair et al. (2006:797).

<table>
<thead>
<tr>
<th>Collinearity diagnostics</th>
<th>Tolerance</th>
<th>Tolerance is an indicator of how much of the variability of the specified independent is not explained by the variable other independent variables in the model (Pallant 2005:150)</th>
<th>If this value was very small (less than .10) it indicated that the multiple correlation with other variables was high, suggesting the possibility of multi-collinearity (Pallant 2001).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collinearity diagnostics</td>
<td>Variance inflation factor</td>
<td>VIF It is just the inverse of the tolerance value.</td>
<td>VIF values above 10 indicate a potential problem of multi-collinearity.</td>
</tr>
<tr>
<td>Outliers</td>
<td>Scatterplot</td>
<td>To identify cases with standardised residuals $-3.3 \leq \text{outlier} \leq 3.3$ (Tabachnick &amp; Fidell 2001).</td>
<td>If cases outside this range were found, an individual case analysis was carried out to identify the need for statistical remedies.</td>
</tr>
<tr>
<td>Outliers</td>
<td>Mahalonobis</td>
<td>Checking critical values of Chi square according to the Table C4 in Tabachnick &amp; Fidell (2001)</td>
<td>Any values above the Table’s values were treated as a violation on this assumption.</td>
</tr>
<tr>
<td>Outliers</td>
<td>Case wise Diagnostics</td>
<td>Durbin Watson Identify cases with standardised residual values $\geq -3.3 \text{ outlier} \leq 3.3$</td>
<td>According to Pallant (2005), in a normally distributed sample we would expect only 1 per cent of cases falling outside this range.2005.</td>
</tr>
<tr>
<td>Outliers</td>
<td>Cook’s distance</td>
<td>Identify the cases in the Case Wise diagnostics that have an undue influence on the results for the model as a whole.</td>
<td>Cases with values larger than 1 are a potential problem (Tabachnick &amp; Fidell 2001).</td>
</tr>
</tbody>
</table>
5.4.4 Regression Model

We ran initially our multiple regression models using the four factors regressed on the 21 dependent factors. The dependent variable Q38 suspension of share trading could not be computed using the \textit{pairwise} method as there was only one observation where this type of crisis outcome was recorded. As such, we decided to delete it from our MRA analysis. This deletion reduced our dependent variables from 21 to 20. Our standardised residual analysis reduced our list of dependent variables from 20 to 19 as Q38 Appointment of Independent Administrators variable had values outside our accepted criteria. From the MRA analyses we aimed at testing both our main and specific null and alternative hypotheses to determine if there was a relationship between the high-profile crisis management model’s factors and dependent variables. If there was a relationship we determined its direction and strength by analysing the regression coefficients.

5.5 Testing of Main Hypotheses Using Multiple Regression Analysis (MRA)

Main hypotheses (HM)

\textbf{H}o: The high-profile crisis management (HPCM) model is not a valid and reliable instrument for measuring and predicting the relationship between strategic crisis preparedness processes and documents, stakeholder relationships/crisis history and crisis outcomes.

\textbf{HM}: The high-profile crisis management (HPCM) model is a valid and reliable instrument for measuring and predicting the relationship between strategic crisis-preparedness processes and documents, stakeholder relationships/crisis history and crisis outcomes.

5.5.1 Main MRA Statistical Results

After conducting the relevant statistical analysis we concluded it that our HPCM model is a valid and reliable instrument for measuring and predicting the relationship
between strategic crisis-preparedness processes, documents, stakeholder relationships/crisis history and non-financial tangible and non-tangible crisis outcomes (see section 5.6). However the HPCM model did not produce the statistical evidence to explain the variance in the tangible financial crisis outcomes. The MRA resulted in 10 rejected and 9 accepted H0 hypotheses.

The moderator variable size was a strong independent variable predictor for those organisations with more than 501 EFTs. The inclusion of the moderator variable increased the rejection H0 level to 12 hypotheses and reduced their acceptance to 7 H0 hypotheses. However given the small subset of data, related to large organization, we qualified these results by size as “indicative” and we did not use them to assess the validity and reliability of our HPCM model. A more detailed analysis is carried out in section 5.7.

No significant problem associated with heteroscedastic and non-linearity of independent variables was detected using graphical techniques.

5.5.2 Working Hypotheses
5.5.2.1 Testing the Alternative Hypothesis H1

The overall crisis financial outcomes ratings referred to Q36 and Q39 of the HPCM questionnaire and comprise the following item variables: direct crisis costs, revenue, profits.

H0 (null hypothesis): The HPCM post-factor analysis model (strategic preparedness, stakeholder relationships/crisis history) is not a significant predictor of tangible financial outcomes (direct crisis costs, revenue, profits).

H1.n (alternative hypothesis): The HPCM post-factor analysis model (strategic preparedness, stakeholder relationships/crisis history) is a significant predictor of tangible financial outcomes (direct crisis costs, revenue, profits).

5.5.2.1.1 H1.1 Q36 Direct Financial Crisis Costs

The MRA model was not a statistically significant predictor of direct financial costs with $F_{(4,17)} = 2.267, p=.105$. The model resulted in a moderately adjusted $R^2$ of .194 (see Appendix 1, Table XXVI). The HPCM model does not support the alternative hypothesis H1.1. Neither the standardised Beta coefficients ($\beta$) nor the ($p$) were statistically significant. $H_0$ was accepted.
The factor F1 made a unique contribution to the regression with a standardised Beta coefficient (β) of -.618 and p=.018. The factor F1 training/contents including the moderator variable size had the strongest unique contribution in explaining the dependent variable. The direct financial cost of the crisis refers to the extent to which the high-profile crisis affected the direct financial cost of managing the crisis from a value of having reached historically low direct cost levels to the position of having reached historically high direct financial cost levels. The factor F1 had statistically strong standardised β and t values indicating a negative correlation and a negative rating of the “direct financial crisis cost” outcome from the high-profile crisis.

The MRA key statistics values on the “direct financial costs” improved significantly when we included the moderator variable size with more than 501 EFTs. The MRA resulted had values of F(4,11)=4.671, p=.019, and a strong adjusted R² of .495. There was a standardised predicted value of 2.584, which was slightly over our flagging indicator of 2.5. The alternative hypothesis H1.1 “direct financial crisis costs” key statistics had significant results for organisations of 501 EFTs employees and more. As such, it was supported. H₀ was rejected.

The MRA backward method improved the HPCM values of the level of significance (p) to the point of making the regression statistically significant with an adjusted R² of .236 and a F significance statistical value of p= .050 by eliminating the factor F2. Conversely, the factor F4 was identified as the one that contributed the most to explain the variance in a unique way, having a positive standardised Beta coefficient (β) of .441 and p=.050. A higher adjusted R² of .263, an F significance statistical value of p=.021 were obtained by additionally eliminating factor F3.

5.5.2.1.2 H1.2 Q36 Revenue

Following the confirmation that there was inter-correlation between the independent variables and the revenue outcome we computed the regression model.

The HPCM model had non-statistical significance level F(4,9)= 2.079, p=.138 and a poor R² of .193 (see Appendix 1, Table XXVII). All but one of the Beta coefficients was very low. However, the factor F4 had a reasonable standardised Beta coefficient of β=.598 and a level of significance p=.023, being the only factor with predicting power.
But the level of significance value computed by the MTA did not support the alternative hypothesis $H_{1.2}$ revenue. $H_0$ was accepted.

The moderate variable size had little impact on the key statistical result. It improved the adjusted $R^2$ to .213 but having a low $F_{(4,17)}= 1.881$ value at a level of significance $p=.198$. $H_0$ was accepted.

The HPCM model, regressed using the backward method, had improved statistical values by deleting the factors F2 and F3. The F significance statistical value ($p$) was reduced to the point of making the regression statistically significant with a positive adjusted $R^2$ of .294 and an F significance value of $p=.024$. The standardised Beta value for F4 was high ($\beta=-.600$).

5.5.2.1.3 $H_{1.3}$ Q36 Profits

Following the MRA methodology used in previous analysis we computed the regression model of profits.

The HPCM model/profit did not meet our minimum F statistical significance level of $p<.005$, having a value of $F_{(4,8)}= 3.565$, $p=.059$ although a very strong adjusted $R^2$ of .461 (see Appendix 1, Table XXVIII). The standardised Beta coefficients ($\beta$) were generally very low. The factor F4 had a high acceptable Beta ($\beta$) and values of .721 and $t$ values of 3.078 with a level of significance of $p=.015$. The alternative hypothesis $H_{1.3}$ Q36 assessment of profits also violated one of the collinearity assumptions. It computed a Cook’s distance value of 1383.32, well above the expected value of 1.0. We examined the individual cases and found that the results expressed the results expected by the research designed. Although no remedy was needed, the MRA of H1.3 resulted in non-significance level limits. The alternative hypothesis $H_{1.3}$ profit was not supported as it did not satisfy all our statistical criteria. $H_0$ was accepted.

The moderate variable size increase for 501 EFTs or more adjusted $R^2$ to .287 but a F at non-significance level of $F_{(4,6)}= 2.005$, $p=.213$. The alternative hypothesis $H_{1.3}$ profit including the moderator size was not supported as it did not satisfy all our key statistical criteria. $H_0$ was accepted.

The MRA backward method greatly improved the statistical indicators by deleting factor F3. The adjusted $R^2$ of .514 was substantially strong at an F significance statistical value of $p=.023$. The standardised Beta ($\beta$) for F4 was very high (.716) at a $t$
level of significance of $p=.010$, being by far the factor which most contributed to explain the variance in a unique way.

5.5.2.1.4 H1.4 Q39 Direct Financial Costs

We computed the MRA of the HPCM model’s and the dependent variable Q39 direct financial costs. The HPCM model/direct financial costs did not meet our minimum F statistical significance level of $p=.005$, having a very low $F_{(4,12)}=.639$, $p=.645$ (see Appendix I, Table 5.XXIX). The standardised Beta coefficients ($\beta$) were very low. But factor F4 had a reasonable Beta ($\beta$) value of -0.275.

The adjusted $R^2$ was negative -0.99. The alternative hypothesis H1.4 direct financial cost impact was not supported as it did not satisfy all our key statistical criteria.

$H_0$ was accepted. The hypothesis H1.4 impact on direct financial costs has also a high Cook’s distance value of 1.208, violating with it the multivariate assumption of outliers. The moderator variable “size” did not improve the key statistics.

The hypothesis H1.4 impact on direct financial costs also had a high Cook’s distance value of 1.208, violating with it the multivariate assumption of outliers. The moderator variable size did not improve the key statistics. The adjusted $R^2$ was negative -0.263 and a very low value of $F_{(4,9)}=324$ at a level of significance of $p=.855$ reflecting very poor predicting values. Nor did the MRA using the backward method improve any of the key statistical indicators. As expected, most of the main statistics were not statistically significant. The standardised Beta coefficients ($\beta$) were generally very low. But the factor F4 had a reasonable Beta ($\beta$) value of -0.275. The adjusted $R^2$ was negative -0.99 and an F significance statistical value of $p=.645$ was very poor. The alternative hypothesis H1.4 direct financial cost impact was not supported. $H_0$ was accepted.

5.5.2.1.5 H1.5 Q39 Revenue Impact

We computed the MRA of the HPCM models and the dependent variable Q39 impact on revenue (see Appendix I, Table 5.XXX). The HPCM model had a value of $F_{(4,16)}=3.780$, $p=.024$ and a positive and very strongly adjusted $R^2$ of .357. Two of the standardised Beta coefficients ($\beta$) were low in value but F4 relationship/crisis history with a $\beta=-.601$. The factor F4 stakeholder relationships inner-core and crisis history had the strongest unique contribution in explaining the dependent variable. F3 training
people had a $\beta = -0.406$. F4 had t levels of significance within the $p = 0.005$ limit. F3 was slightly above this limit (.076). F3 and F4 had also significant t values. F4 was the best predictor with a t value of $-3.035$ ($p = 0.008$) followed by F3 with a t value of $-1.898$ ($p = 0.076$). Based on these statistical results the alternative hypothesis H1.1.5 Q39 impact on revenue was supported as having very strong predictive values. $H_0$ was rejected.

The moderator variable size had a strong effect on these key statistics. The adjusted $R^2$ increased for 501 EFTs to .505 and $F(4,11) = 4.829$, $p = 0.017$. The key statistics of F3 improved to the point of becoming the best contributing factors with a $\beta = -0.54$, $t = -2.670$, $p = 0.046$. F4 became the second contributing factor with a $\beta = -0.488$ and a $t = -2.252$ and $p = 0.022$ levels of significance. Despite all these statistically significant regression statistics, the MRA also computed a very high standarised residual value of 2.916, well outside our established accepted value of $\leq 2.8$. Based on these statistical results the alternative hypothesis H1.1.5 Q39 impact on revenue moderated by the variable size was rejected. $H_0$ was accepted. The MRA backward method confirmed that the whole model produced the best key statistics. The HPCM model using the MRA backward method had an F statistical significance level ($p = 0.024$) and a positive and very strongly adjusted $R^2$ of .357. F4 was by far the factor which contributed most to explain the variance in a unique way in the absence of the moderator size.

5.5.2.1.6 H1.6 Q39 Profits (Impact)

The HPCM model had $F(4,9) = 1.041$, at a non-statistical significance level ($p = 0.438$) and a very weak adjusted $R^2$ of .012 (see Appendix 1, Table XXXI). None of the factors had statistically significant Beta standardised ($\beta$) or t values. Hypothesis H1.6 Q39 impact on profits had a Cook’s distance value of 4.294 indicating a violation of the outliers assumption. The individual cases were examined but no remedy seemed necessary. The alternative hypothesis H1.6 Q39 impact on profits was not supported. $H_0$ was accepted.

The moderator variable size had no positive effect on the MRA key statistics. The adjusted $R^2$ increased slightly to .028, but a low value of $F(4,7) = 1.078$ at a non-significance level of $p = 0.435$. Based on these statistical results the hypothesis H1.6 Q39 impact on profits moderated by the variable size was not supported as having no predictive power. $H_0$ was accepted. The MRA backward method confirmed that there is not a significant relationship between the model and the dependent variable Q39.
The non-financial outcomes referred to Q38 of the HPCM questionnaire, which asked the respondents to indicate whether the high-profile crisis was either the main determinant for the resignation of staff or changes in policy and/or the organisation and/or the establishment on enquiries. The answer to Q38 “not being determinant at all” was interpreted by this research as either there was an outcome but this was not related at all to the crisis or that the specific outcome did not take place at all.

H₀ (null hypothesis): The HPCM post-factor analysis model is not a significant predictor of tangible non-financial outcomes.

H₂.ₙ: The HPCM post-factor analysis model is a significant predictor of tangible non-financial outcomes.

5.5.2.2.1 H₂.₁ Q39 Resignation of Board Members

The HPCM adjusted model was a statistically significant predictor of the resignation of board members. It had a strong adjusted R² of .286 and F(4,16) = 3.006, p = .050 (see Appendix 1, Table XXXII). The factor F4 had strongly standardised (β) and t values but at a non-significance level of p = .058. Therefore the model had no unique factors which contributed uniquely to the explanation of the variance. The alternative hypothesis H₂.₁ resignation of board members was supported as having strong predictive values. H₀ was rejected.

The moderator variable size had a strong effect on the MRA key statistics. The adjusted R² increased to .555 at a high value of F(4,12) = 5.982, p = .007. The inclusion of our moderator variable size resulted in two factors with statistically significant values. Factors F1 and F2 had strongly standardised (β) values of .489 and .425 and t of 2.414 and 2.325 at p = .033 and p = .038 levels of significance respectively, expressing with this value, a very strong predicting power. The resignation of board members refers to the extent that the high-profile crisis determined their resignation from a position of being the main determinant to the position of not having been a determinant at all. Based on these statistical results, the hypothesis H₂.₁ Q38 resignation of board members
moderated by the variable size was supported as having very strong predictive power. H₀ was rejected.

The MRA backward method identified F4 as the factor with significant statistical value. Overtaking F1 and F2 and deleting F3 from our model, the adjusted R² increased to .329 at an F significance statistical value of p=.049.

5.5.2.2.2 H2.2 Q38 Resignation of the CEO or Managing Director

The HPCM adjusted model had a value of F(4,16)= 3.318, p=.037 and a very strong adjusted R² of .317 (see Appendix 1, XXXIII). The factor F4 had a strongly standardised negative (β) and t values of -.479 and –2.346 respectively at a significance level of p=.032. Therefore, the factor F4 had uniquely contributed to the explanation of the variance. The alternative hypothesis H2.2 resignation of the CEO/managing director was supported as having strong predictive power. H₀ was rejected.

The moderator variable size had a strong effect on the MRA key statistics. The adjusted R² increased to .587 and a value of F(4,11)= 6.323, p=.007. The inclusion of our moderator variable size resulted in two factors with statistically significant values. Factor F1 and F2 had strongly standardised (β) values of .448 and .428 and t of 2.224 and 2.357 at p=.048 and p=.038 levels of significance respectively. Based on these statistical results the alternative hypothesis H2.2 Q38 resignation of the CEO/managing director moderated by the variable size was supported as having a very strong predictive power. H₀ was rejected.

As in our previous analysis regarding the resignation of board managers, the MRA backward method identified F4 as the factor with significant statistical value, overtaking F1 and F2 and deleting F3 from our model. The adjusted R² increased to .348 at an F significance statistical value of p=.016.

5.5.2.2.3 H2.3 Q38 Resignation of Senior Managers

The HPCM adjusted model had a value of F(4,18)= 2.855, p=.054 and strong adjusted R² of .252 (see Appendix 1, Table XXXIV). Despite the significance level being very close to our sought level of p=.05 and the factor F4 having strong standardised (β) and t values of -.454 and –2.230 at a significance level of p=.039, a standardised residual value was high (2.878), outside our acceptable criteria (-2.8 < srv < 2.8).
Based on these key statistics we decided to reject the alternative hypothesis H2.3 resignation of senior managers. H₀ was accepted, but noting that the statistical significance level almost came within our accepted F limit of (p=.05).

The moderator variable size had no positive effect on the MRA key statistics. The adjusted R² increased slightly to .277 and an F(4,13)= 2.626, p=.083 at a significance level of p=.083. The inclusion of our moderator variable size did not result in any statistically significant factors. Based on these statistical results the alternative hypothesis H2.3 Q38 resignation of senior managers was not supported. H₀ was accepted. The MRA backward method increased the adjusted R² increased to .316 at an F significance statistical value of p=.009 by deleting factors F1 and F2. However, the high standardised residual value of 2.965 indicated a strong model over-fitting effect.

5.5.2.2.4 H2.4 Q38 Criminal Charges to Staff

The HPCM adjusted model had a value of F(4,17)= .423, p=.722 and a negative adjusted R² of -.124 and no unique statistical factor contributors (see Appendix 1, Table XXXV). H2.4 HPCM criminal charges to staff members were not supported. The moderator variable size had no significant effect on the MRA key statistics. The inclusion of our moderator variable size did not result in any statistically significant factors. Based on these statistical results the hypothesis H2.4 Q38 resignation of senior managers including the moderator variable size was also not supported. The MRA backward method did not identify any significant statistical values.

5.5.2.2.5 H2.6 Q38 Substantial Organisational Changes

The HPCM model resulted in a value of F(4,18)= 1.791, p=.175 (non-statistical significance level and a weak adjusted R² of .126. F3 was the only factor with unique statistical explanatory power, a standardised (β) and t values of -.519 and –2.182 respectively (see Appendix 1, Table XXXVII). Based on these statistics, the alternative hypothesis H2.6 Q38 substantial organisational changes, was not supported. H₀ was accepted. The inclusion of our moderator variable size changed the adjusted R² substantially to .521 and an F(4,12)= 5.359, p=.010. F2 and F3 were the strongest contributing factors with F2 p=.030 and a standardised (β) and t values of .465 and
2.458 respectively. But F3 had the strongest t statistics with a \( p=0.004 \) and a standardised (\( \beta \)) and t values of -3.525 and -3.525 respectively. Based on these statistical results the hypothesis H2.6 Q38 substantial organisational changes including the moderator variable size was supported. \( H_0 \) was rejected. The MRA backward method, by deleting F2, improved the adjusted \( R^2 \) to .138, without reaching a significance statistical value, F (\( p=0.125 \)).

5.5.2.2.6 H2.7 Q38 Substantial Policy Changes

The HPCM model resulted in a value of \( F_{(4,19)}= 2.942, \ p=0.048 \) and a strongly adjusted \( R^2 \) of .252. F4 was the only factor with unique statistical explanatory power, a standardised (\( \beta \)) and t values of -3.206 respectively (see Appendix I, Table XXXVIII). Based on these statistics the alternative hypothesis H2.7 Q38 substantial policy changes were supported. \( H_0 \) was rejected. The inclusion of our moderator variable size changed the adjusted \( R^2 \) substantially to .361 and computed a value of \( F_{(4,13)}= 3.405, \ p=0.041 \). There were not statistically significant contributing factors. This regression produced a standardised residual value of -2.757, figure within our accepted criteria. Based on these statistical results the hypothesis H2.7 Q38 substantial policy changes, including the moderator variable size, was supported. \( H_0 \) was rejected. The MRA backward method improved the key statistics slightly by deleting F1, F2 and F3, the adjusted \( R^2 \) increased to .321 at an F value of \( p=0.002 \).

5.5.2.2.7 H2.8 Q38 A Regulator's Enquiry

The HPCM model had values of \( F_{(4,17)}= 1.237, \ p=0.333 \) (non-statistical significance level) and a very weak adjusted \( R^2 \) of .043. F2 was the only factor with unique statistical explanatory power with a high standardised (\( \beta \)) and t values of -2.110 and -2.110 respectively (see Appendix I, Table XXXIX). Based on these statistical results the alternative hypothesis H2.8 Q38 a regulator’s enquiry was not supported. \( H_0 \) was accepted. The inclusion of our moderator variable size did not change the key statistical results (\( F_{(4,12)}= .730, \ p=0.588 \). The adjusted \( R^2 \) of -0.072 confirmed the rejection of this hypothesis. The MRA backward method, after deleting F3 and F4, did not improve these key statistics significantly, having an adjusted \( R^2 \) to .123 and F (\( p=0.111 \)).
5.5.2.2.8 H2.9 Q38 A Federal or State Enquiry

The HPCM model had values of $F_{(4,17)} = 4.076$, $p=0.017$ and a very strong adjusted $R^2$ of .369. F1 and F3 had unique statistical explanatory power, F1 with a $(p=.013)$ and a high standardised ($\beta$) and t values of -.620 and –2.775 respectively (see Appendix I, Table XL). F3 with a $(p=.004)$ and a high standardised ($\beta$) and t values of - .683 and –3.305 respectively. Based on this statistical result the alternative hypothesis H2.9 Q38 a federal or state enquiry was supported. $H_0$ was rejected. The inclusion of our moderator variable size improved the key statistics results substantially. The adjusted $R^2$ increased to .583 with values of $F_{(4,12)}= 6.589$, $p=.005$. The factor F3 had the best statistics with a standardised ($\beta$) and t values of -.869 and –4.763 at a $p=.000$. The alternative hypothesis H2.9 Q38 a federal or state enquiry with the inclusion of our moderator variable size was supported as having a very strong predictive power. $H_0$ was rejected.

The MRA backward method, after deleting F2, F1 and F3, significantly improved the key statistics over the enter method with an adjusted $R^2$ to .404, and an F value of $p=.006$.

5.5.2.2.9 H2.10 Q38 A Prolonged Civil Litigation Process

The HPCM model had values of $F_{(4,18)} = 4.918$, $p=.007$ a very strong adjusted $R^2$ of .416 F1 and F2 were the factors with unique statistical explanatory power (see Appendix I, Table XLI). F1 with a $p=.013$ and a high standardised ($\beta$) and t values of -.581 and –2.766 respectively. F2 has a $(p=.046)$ and a high standardised ($\beta$) and t values of -.372 and –2.142 respectively. Based on these statistical results the alternative hypothesis H2.10 Q38 a prolonged civil litigation process was supported. $H_0$ was rejected. The inclusion of our moderator variable size improved the key statistics results substantially. The adjusted $R^2$ increased to .542 with values of $F_{(4,12)}= 5.732$, $p=.008$. Interestingly, the factor F3 which had no statistically significant values in the absence of our moderator variable, became the factor with the best predicting statistics with a $p=.003$, a standardised ($\beta$) and t values of -.713 and –3.727 respectively. The alternative hypothesis H2.10 Q38 a prolonged civil litigation process with the inclusion of our
moderator variable *size* was *supported* as having a very strong predictive power. $H_0$ was *rejected*.

The MRA backward method, after deleting F4, F1 and F2, improved the key statistics slightly over the enter method with an adjusted $R^2$ to .446 at an F value of $p=.002$. F3 remained the greatest contributor factor to explain the variance.

### 5.5.2.3 Testing the Alternative Hypothesis H3

The non-tangible outcomes referred to Q36 and Q39 of the HPCM questionnaire and they comprise the following item variables: reputation and staff morale.

$H_0$ (null hypothesis): The HPCM post-factor analysis model is not a significant predictor of non-tangible outcomes (reputation and staff morale).

$H_3.n$: The HPCM post-factor analysis model is a significant predictor of non-tangible outcomes (reputation and staff morale).

#### 5.5.2.3.1 H3.1 – Q36 Reputation (Assessment)

The HPCM model was a statistically significant predictor of reputation with values of $F_{(4,19)}= 6.214$, $p=0.002$ and a very strong adjusted $R^2$ of .476 (*see Appendix I, Table XLII*). F3 was the factor with unique statistical explanatory power with a ($p=.026$) and a high standardised ($\beta$) and t values of .434 and 2.409 respectively. F2 with a ($p=.046$) and a high standardised ($\beta$) and t values of -.372 and -2.142 respectively. Based on these statistical results the alternative hypothesis H3.1 Q3 reputation was *supported*. $H_0$ was *rejected*. We had a standardised residual value of 2.824, well within our accepted criteria. The inclusion of our moderator variable *size* improved the key statistics results substantially. The adjusted $R^2$ increased to .557 and an $F_{(4,13)}= 6.351$, $p=.005$. The factor F3 remained as the only one with statistically significant values with a $p=.009$, a standardised ($\beta$) and t values of .561 and 3.078 respectively. However, the standardised residuals had a value of 2.853 that we assessed as too high to accept the hypothesis. Therefore, the H3.1 Q36 reputation with the inclusion of our moderator variable *size* was not *supported*. $H_0$ was *accepted*. 

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The MRA backward method best statistics were the result of computing the whole HPCM model. No factors were deleted.

5.5.2.3.2 H3.2 Q36 Staff Morale (Assessment)

The HPCM model had a statistical significance level with values of $F(4,19)=5.923$, $p=0.003$ and a very strong adjusted $R^2$ of .461 (see Appendix I, Table XLIII). None of the factors had a unique contribution to explain the variance but F2 was the factor with a very close F statistical level of significance ($p=.056$) and a high standardised ($\beta$) and $t$ values of .333. The regression computed a high standardised residual value of 2.799. Although both values were at the maximum range of $-2.8 > \text{srv} \leq 2.8$, this value was within our accepted criteria level. Based on these statistical results the alternative hypothesis H3.2 Q3 staff morale was supported. $H_0$ was rejected.

The inclusion of our moderator variable size improved the key statistics results substantially. The adjusted $R^2$ increased to .493 at $F(4,13)=5.134$, $p=.011$. We did not identify a unique contributor factor to explain the variance. The factor F3 remained the closest to having a statistically significant value with a F statistic value of $p=.056$, a standardised ($\beta$) and $t$ values of .410 and 2.100 respectively. The standardised residuals (srv) also improved. There was a high single value of 2.744. Therefore, the H3.2 Q36 staff morale with the inclusion of our moderator variable size was supported. The $H_0$ was rejected. The MRA backward method best statistics were the result of computing the whole HPCM model. No factors were deleted.

5.5.2.3.3 H3.3 Q39 Reputation (Impact)

The HPCM model had a value of $F(4,19)=3.060$, $p=.042$ and a strong adjusted $R^2$ of .264 with no unique factors (see Appendix I, Table XLIV). Based on these statistical results the hypothesis H3.3 HPCM Q39 reputation-impact was supported. $H_0$ was rejected.

The inclusion of our moderator variable size improved the key statistics results substantially. The adjusted $R^2$ increased to .428 at a value of $F(4,13)=4.174$, $p=.022$. The factor F3 was the only one with statistically significant values with a $p=.009$, a standardised ($\beta$) and $t$ values of -3.632 and -3.049 respectively. There was a standardised residuals value of $-2.705$ that we assessed as high but within our accepted limits to
accept the hypothesis. Therefore, the alternative H3.3 Q39 reputation-impact with the inclusion of our moderator variable size was supported. H0 was rejected.

The MRA backward method best statistics were the result of computing the whole HPCM model minus the factor. In F4 the adjusted R² increased to .301 with a F statistic p=.017. The model did not have any statistically significant factor.

5.5.2.3.4 H3.4 Q39 Staff Morale (Impact)

The HPCM model had a value of F(4,19)= 3.797, p=.020 and a very strong adjusted R² of .327 (see Appendix 1, Table XLV). The factor F3 was the only factor with a statistical level of significance (p=.015) and a high standardised (β) and t values of -2.684 and -2.684 respectively. Based on this statistical result the alternative hypothesis H3.4 Q39 staff morale was supported. The H0 was rejected.

The inclusion of our moderator variable size improved the key statistics results substantially. The adjusted R² increased to .414, with values of F(4,13)= 3.998, p=.025. The factor F3 was the only one to have a statistically significant value with a p=.015, a standardised (β) and t values of -2.799 respectively. The standardised residuals also improved. This time the srv value (2.051) fell within an acceptable range below our flagging limit of 2.8. Therefore, the alternative H3.4 Q39 staff morale with the inclusion of our moderator variable size was supported. H0 was rejected.

The MRA backward method best statistics were the result of computing the whole HPCM model minus the factors F1 and F2. The adjusted R² increased to .387 with a F value of p=.002. The factor F3 remained as the only one with a statistically significant level of p=.003.

5.6 Evaluation of the Modified HPCM Model

5.6.1 Validity and Reliability

We analysed the four factors resulting from our factor analysis from a validity perspective to ensure that they were stable and accurate enough to measure what they were aiming to measure. This analysis confirms whether the findings reflect an accurate measure of the constructs (strategic preparedness, relationship and crisis history) and that the results are believable (Saraph & Schroeder, 1991; Flynn et al., 1994). Three
different types of validity were considered in this study: content, construct and criterion validity

5.6.1.1 Content Validity

A construct is considered as having content validity if there is general agreement from the literature that the high-profile crisis model has measurement items based on the extensive review of international literature and is consistent with other sources like professional bodies. The content validity subjectively assessed the correspondence between the individual items and the concept through ratings expert judges or other means. We developed the constructs based on the literature, feedback from professional bodies (like the Australian and New Zealand Public Relations Institutes), private practices (Media Manoeuvres and Reddan Strategic Communication) and feedback collected from the qualitative studies and questionnaire pre-testing process. As such, we believe that our constructs met the content validity criteria.

5.6.1.2 Construct Validity

Hair et al. (2006) defined this as the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure. Our factor analysis validated our overall approach as overall the factors are consistent with our latent constructs derived from the literature. A minor adjustment was made as a result of the factor analysis in relation to our crisis history construct as the independent variable to measure it (Q48 lessons learned) was grouped in factor F4 with two relationship history variables (Q22 staff and Q22 union). As a consequence, relationships and crisis history are treated as a single construct for multi-variable analysis purposes.

5.6.1.3 Criterion Validity

This is also known as predictive validity or external validity. It is concerned with the extent to which the model is related to independent measures of the crisis outcomes. The criterion related validity of the high-profile crisis model was determined by examining the multiple correlation coefficient computed for the four independent factors and the predictive ability of our post-factor model.
5.6.2 Reliability

Hair et al. (2006) define reliability as the extent to which a variable or a set of variables is internally consistent in what it is intended to measure. It differs from validity in that it does not relate to what should be measured, but instead to how it is measured. The indicators of highly reliable constructs are highly interrelated, indicating that they all seem to measure the same thing. The individual item reliability can be computed as 1.0 minus the measurement error.

*Table 5.Ar: Model Reliability Results*

<table>
<thead>
<tr>
<th>Alpha</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>Total variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>0.918</td>
<td>0.84</td>
<td>0.927</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>Alpha Standardised</td>
<td>0.92</td>
<td>0.847</td>
<td>0.927</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>No. of variables</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>14</td>
</tr>
</tbody>
</table>

The reliabilities of F1 to F3 met Nunnally’s recommended standard, Cronbach Alpha ≥ 0.70, for early stages of research (1978). Hair et al. (2006) indicate that standardised loading estimates of Alpha should be .5 or higher and ideally .7 or higher. All but one factors from F1, F2 and F3 had Cronbach Alphas ≥ 0.70. We maintained factor F4 despite a reliability score below .700, recommended by Nunnally, but above the minimum accepted by Hair et al. If we had removed Q40 lessons learned, the reliability score would have been .713. This study met the criteria for reliability.

5.6.3 Summary

Based on the above analysis, we are satisfied from a validity and reliability perspective, that the overall model is a valid instrument for measuring and predicting the relationship between strategic crisis preparedness, stakeholder relationships, crisis history and outcomes in particular for tangible non-financial and non-tangible crisis outcomes.

5.7 Conclusions of the Quantitative Analysis

As a result of the MRA overall analysis discussed in detail below and in Chapter 6, we rejected our main $H_0$ hypothesis and therefore accepted the alternative $H_M$.
hypothesis whereas the HPCM model is a valid instrument for measuring and predicting the relationship between strategic crisis preparedness processes and documents, stakeholder relationships/crisis history and tangible non-financial and non-tangible crisis outcomes. Our model was inadequate to explain the variance in tangible financial crisis outcomes.

A summary of our hypotheses results is presented in the table below:

**Table 5.A: Working Hypotheses Accepted/Rejected**

<table>
<thead>
<tr>
<th>Hypothesis No.</th>
<th>Hypothesis’ Outcome</th>
<th>H0</th>
<th>H0</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1.1</td>
<td>Q36 Assessment of direct financial crisis costs</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>H1.2</td>
<td>Q36 Assessment of revenue</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H1.3</td>
<td>Q36 Assessment of profits</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H1.4</td>
<td>Q39 Impact on direct financial crisis costs</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H1.5</td>
<td>Q39 Impact on Revenue</td>
<td>Rejected</td>
<td>*</td>
</tr>
<tr>
<td>H1.6</td>
<td>Q36 Impact on profits</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2.1</td>
<td>Q38 Resignation of board members</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2.2</td>
<td>Q38 Resignation of the CEO</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2.3</td>
<td>Q38 Resignation of senior managers</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2.4</td>
<td>Q38 Criminal charges to staff</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2.6</td>
<td>Q38 Substantial organisational changes</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2.7</td>
<td>Q38 Substantial policy changes</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2.8</td>
<td>Q38 A regulators’ enquiry</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2.9</td>
<td>Q38 A Federal or State enquiry</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2.10</td>
<td>Q38 A prolong civil litigation process</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3.1</td>
<td>Q36 Reputation (overall rating)</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3.2</td>
<td>Q36 Staff morale (overall rating)</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3.3</td>
<td>Q39 Reputation (impact)</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3.4</td>
<td>Q39 Staff morale (impact)</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

*Dropped from our MRA analysis as it had an unacceptable srv value of 2.916
The MRA resulted in 9 rejected and 10 accepted null $H_0$ hypotheses. The moderator variable \textit{size} was a strong independent variable predictor for those organisations with more than 501 EFTs. Its inclusion increased the rejection $H_0$ level to 11 hypotheses and reduced their acceptance to 8 $H_0$ hypotheses (see Tables 5.At, 5.Au and 5.Ax).

However given the small subset of large organization, we qualified these results by size as “indicative” and we did not use them to assess the validity and reliability of our HPCM model.

The $H_0$ hypothesis H1.3 Q36 assessment of profits was accepted because it had a non-significance level of .059 (just outside our acceptance level of <.05) but it had a very strongly adjusted $R^2$ of 46.1 per cent. It was a result that should be explored in detail in further studies.

Three other regressions excluding the moderator variable \textit{size} resulted in standardised residual values between 2.5 to 2.8. One regression including the moderator variable \textit{size} fell within the same range (2.5 to 2.8). However H1.5 Q39 Impact on Revenue had a standardised residual value outside our accepted upper limit of 2.8, as such, it was dropped from the analysis. Most of the accepted hypotheses had very high adjusted $R^2$ values (> .20), indicating strong predictive power. No significant problems associated with heteroscedastic and non-linearity of independent variables were detected using graphical techniques (see Tables 5.Av).
Table 5. At: MRA Results by Crisis Outcomes

<table>
<thead>
<tr>
<th>HPCM Model</th>
<th>Statistical Outcomes/Dependent Variable</th>
<th>F test Level of Significance ($p$)</th>
<th>$R^2$</th>
<th>$R^2$ Adjusted</th>
<th>Standardised residual values -2.8&gt;srv&lt;2.8</th>
<th>Standard Error</th>
<th>Main contributor factor(s)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Q36 Assessment of direct financial crisis costs</td>
<td>0.105</td>
<td>0.348</td>
<td>0.194</td>
<td>Yes</td>
<td>0.843</td>
<td>Nil</td>
</tr>
<tr>
<td>2</td>
<td>Q36 Assessment of revenue</td>
<td>0.138</td>
<td>0.373</td>
<td>0.193</td>
<td>Yes</td>
<td>0.755</td>
<td>F4</td>
</tr>
<tr>
<td>3</td>
<td>Q36 Assessment of profits</td>
<td>0.059</td>
<td>0.641</td>
<td>0.461</td>
<td>Yes</td>
<td>0.670</td>
<td>F4</td>
</tr>
<tr>
<td>4</td>
<td>Q36 Assessment of reputation</td>
<td>0.002</td>
<td>0.567</td>
<td>0.476</td>
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<td>0.807</td>
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<tr>
<td>5</td>
<td>Q36 Assessment of staff morale</td>
<td>0.003</td>
<td>0.555</td>
<td>0.461</td>
<td>Yes</td>
<td>0.818</td>
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</tr>
<tr>
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<td>Q38 Resignation of board members</td>
<td>0.050</td>
<td>0.429</td>
<td>0.286</td>
<td>Yes</td>
<td>1.018</td>
<td>Nil</td>
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<tr>
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<td>Q38 Resignation of the CEO</td>
<td>0.037</td>
<td>0.453</td>
<td>0.317</td>
<td>Yes</td>
<td>1.085</td>
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<tr>
<td>8</td>
<td>Q38 Resignation of senior managers</td>
<td>0.054</td>
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<td>0.252</td>
<td>Yes</td>
<td>1.282</td>
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<tr>
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<td>Q38 Criminal charges to staff</td>
<td>0.790</td>
<td>0.090</td>
<td>-0.124</td>
<td>Yes</td>
<td>1.211</td>
<td>Nil</td>
</tr>
<tr>
<td>10</td>
<td>Q38 Substantial organisational changes</td>
<td>0.175</td>
<td>0.285</td>
<td>0.126</td>
<td>Yes</td>
<td>1.527</td>
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<tr>
<td>11</td>
<td>Q38 Substantial policy changes</td>
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<td>0.382</td>
<td>0.252</td>
<td>Yes</td>
<td>1.307</td>
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<tr>
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<td>Q38 A regulators’ inquiry</td>
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<td>0.225</td>
<td>0.043</td>
<td>Yes</td>
<td>1.633</td>
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<td>13</td>
<td>Q38 A Federal or State inquiry</td>
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<td>0.490</td>
<td>0.369</td>
<td>Yes</td>
<td>1.265</td>
<td>F1, F3</td>
</tr>
<tr>
<td>14</td>
<td>Q38 A prolong civil litigation process</td>
<td>0.007</td>
<td>0.522</td>
<td>0.416</td>
<td>Yes</td>
<td>1.265</td>
<td>F1, F2</td>
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<td>Q39 Impact of direct financial costs</td>
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<td>0.176</td>
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<td>1.486</td>
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<tr>
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<td>Q39 Impact on profits</td>
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<td>0.316</td>
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<td>1.160</td>
<td>Nil</td>
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<tr>
<td>18</td>
<td>Q39 Impact on reputation</td>
<td>0.042</td>
<td>0.392</td>
<td>0.264</td>
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<td>1.355</td>
<td>Nil</td>
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<td>19</td>
<td>Q39 Impact on staff morale</td>
<td>0.020</td>
<td>0.444</td>
<td>0.327</td>
<td>No</td>
<td>1.214</td>
<td>F3</td>
</tr>
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Table 5. Au: MRA Results by Crisis Outcomes Including the Moderator Variable “size”

<table>
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<tr>
<th>HPCM Model</th>
<th>Statistical Outcomes/ Dependent Variable</th>
<th>F test Level of Significance ($p$)</th>
<th>$R^2$</th>
<th>$R^2$ Adjusted</th>
<th>Standardised residual values -2.8&lt;srv&lt;2.8</th>
<th>Standard Error</th>
<th>Main contributor factor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q36 Assessment of direct financial crisis costs</td>
<td>0.019</td>
<td>0.629</td>
<td>0.495</td>
<td>Yes</td>
<td>0.613</td>
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</tr>
<tr>
<td>2</td>
<td>Q36 Assessment of revenue</td>
<td>0.198</td>
<td>0.455</td>
<td>0.213</td>
<td>Yes</td>
<td>0.724</td>
<td>Nil</td>
</tr>
<tr>
<td>3</td>
<td>Q36 Assessment of profits</td>
<td>0.213</td>
<td>0.572</td>
<td>0.287</td>
<td>Yes</td>
<td>0.703</td>
<td>Nil</td>
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<tr>
<td>4</td>
<td>Q36 Assessment of reputation</td>
<td>0.005</td>
<td>0.661</td>
<td>0.557</td>
<td>Yes</td>
<td>0.746</td>
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<td>5</td>
<td>Q36 Assessment of staff morale</td>
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<td>0.612</td>
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<td>Yes</td>
<td>0.886</td>
<td>Nil</td>
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<td>6</td>
<td>Q38 Resignation of board members</td>
<td>0.007</td>
<td>0.666</td>
<td>0.555</td>
<td>Yes</td>
<td>0.848</td>
<td>F1,F2</td>
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<td>Q38 Resignation of the CEO</td>
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<td>0.697</td>
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<td>0.919</td>
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<td>8</td>
<td>Q38 Resignation of senior managers</td>
<td>0.083</td>
<td>0.447</td>
<td>0.277</td>
<td>No</td>
<td>1.306</td>
<td>Nil</td>
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<td>9</td>
<td>Q38 Criminal charges to staff</td>
<td>0.722</td>
<td>0.148</td>
<td>-0.136</td>
<td>Yes</td>
<td>1.284</td>
<td>Nil</td>
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<td>10</td>
<td>Q38 Substantial organisational changes</td>
<td>0.010</td>
<td>0.641</td>
<td>0.521</td>
<td>Yes</td>
<td>1.118</td>
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<td>0.041</td>
<td>0.512</td>
<td>0.361</td>
<td>Yes</td>
<td>1.177</td>
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<td>12</td>
<td>Q38 A regulators’ inquiry</td>
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<td>1.797</td>
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<td>1.055</td>
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<td>Yes</td>
<td>1.073</td>
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<td>Q39 Impact of direct financial costs</td>
<td>0.855</td>
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<td>No</td>
<td>1.588</td>
<td>Nil</td>
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<tr>
<td>16</td>
<td>Q39 Impact on revenue</td>
<td>0.024</td>
<td>0.798</td>
<td>0.505</td>
<td>Yes</td>
<td>0.703</td>
<td>F4,F3</td>
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<tr>
<td>17</td>
<td>Q39 Impact on profits</td>
<td>0.435</td>
<td>0.381</td>
<td>0.028</td>
<td>No</td>
<td>1.112</td>
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<td>Q39 Impact on reputation</td>
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<td>0.428</td>
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<td>1.151</td>
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Table 5. Av: Standardised Residual Values Analysis

<table>
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<tr>
<th>HPCM Model</th>
<th>Statistical Outcomes/ Dependent Variables</th>
<th>ALL ORGANISATIONS</th>
<th>Including the Moderator Variable &quot;size&quot;</th>
<th>Including the Moderator Variable &quot;size&quot;</th>
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<td>Highest/ Lowest standardised residual value</td>
<td>R² Adjusted</td>
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<td>Q36 Assessment of direct financial costs</td>
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<td>1.836</td>
<td>0.495</td>
</tr>
<tr>
<td>2</td>
<td>Q36 Assessment of revenue</td>
<td>0.193</td>
<td>1.837</td>
<td>0.213</td>
</tr>
<tr>
<td>3</td>
<td>Q36 Assessment of profits</td>
<td>0.461</td>
<td>1.566</td>
<td>0.287</td>
</tr>
<tr>
<td>4</td>
<td>Q39 Impact on direct financial costs</td>
<td>-0.099</td>
<td>-2.329</td>
<td>-0.263</td>
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<td>5</td>
<td>Q39 Impact on revenue</td>
<td>0.357</td>
<td>2.210</td>
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<tr>
<td>6</td>
<td>Q39 Impact on profits</td>
<td>0.012</td>
<td>1.948</td>
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<tr>
<td>7</td>
<td>Q38 Resignation of board memb</td>
<td>0.286</td>
<td>1.618</td>
<td>0.555</td>
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<td>8</td>
<td>Q38 Resignation of the CEO</td>
<td>0.317</td>
<td>1.748</td>
<td>0.587</td>
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<td>Q38 Criminal charges to staff</td>
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Table 5.Ax: Working Hypotheses Accepted/Rejected with Statistical MRA results

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<tr>
<th>No</th>
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<th>HPCM</th>
<th>Statistical Outcomes/Dependent Variables</th>
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<th>Main contributor factor(s)</th>
<th>Ho P-value($&gt;0.05$)</th>
<th>Alternative Hypothesis P-value($&lt;0.05$)</th>
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<td>0.194</td>
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<td>2</td>
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<td>Assessment of revenue</td>
<td>0.138</td>
<td>0.193</td>
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<td>Impact on revenue</td>
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<td>Resignation of board memb</td>
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<td>Resignation of the CEO</td>
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<td>Resignation of senior managers</td>
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<td></td>
<td>Criminal charges to staff</td>
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<td>A regulators’ inquiry</td>
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<td>Q38</td>
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<td>F1, F2</td>
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<td>17</td>
<td>Q36</td>
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<td>Assessment of staff morale</td>
<td>0.003</td>
<td>0.461</td>
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<tr>
<td>18</td>
<td>Q39</td>
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<td>Impact on staff morale</td>
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<td>0.264</td>
<td>Nil</td>
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<td>Rejected</td>
</tr>
<tr>
<td>19</td>
<td>Q39</td>
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<td>Impact on staff morale</td>
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<td>0.327</td>
<td>F3</td>
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</table>

Method Enter
Pairwise Imputation method
Table 5.Ay: Frequencies of main contributing factors

Frequencies of Main Contributing Factors

<table>
<thead>
<tr>
<th>Factor ID</th>
<th>Factor name</th>
<th>Frequency</th>
<th>Frequency Including &quot;size&quot;</th>
<th>Total</th>
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</thead>
<tbody>
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<td>F1</td>
<td>Training/Contents</td>
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<td>4</td>
<td>6</td>
</tr>
<tr>
<td>F2</td>
<td>SP: Crisis Prevention Process/Documents</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>F3</td>
<td>Training/People</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>F4</td>
<td>Relationships Innercore/crisis history</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8</td>
<td>14</td>
<td>22</td>
</tr>
</tbody>
</table>

The strategic preparedness dimension (F1 training/contents, F2 crisis prevention process / documents and F3 training/people) contributed the most to explaining the variance of the crisis outcomes with 19 contributing factors out of a total of 24 (with and without the moderator variable).

5.7.1 Analysis of the MRA Results with Statistically Significant R² and F statistic p Values

5.7.1.1 Alternative Hypothesis H1.1

The HPCM post-factor analysis model is a significant predictor of the assessment on the direct financial cost of the crisis.

The HPCM model explained 19.4 per cent of the total variance using the conservative statistical measurement of the adjusted R² but with a value of the F statistic at non-significance levels (p=.105). H₀ hypothesis was accepted. The inclusion of the moderator variable size increased the adjusted R² substantially to 49.5 per cent with a value of the F statistic at a significance level (p=.019). H₀ hypothesis including the moderator variable size was rejected.

The factor F1 training/contents including the moderator variable size had the strongest unique contribution in explaining the dependent variable. The direct financial cost of the crisis refers to the extent to which the high-profile crisis affected the direct
financial cost of managing the crisis from a value of having reached historically low
direct cost levels to the position of having reached historically high direct financial cost
levels. The factor F1 had statistically strongly standardised β and t values, indicating a
negative correlation and a negative rating of the “direct financial crisis cost” outcome
from the high-profile crisis. These statistical results supported the alternative H1.1
hypothesis as a strong predictor with the inclusion of our moderator size.

5.7.1.2 Alternative Hypothesis H1.5

The HPCM post-factor analysis model is a significant predictor of the impact on
revenue.

The HPCM model explained 35.7 per cent of the total variance using the
conservative statistical measurement of the adjusted $R^2$ with a value of the F statistic at a
significance level ($p < 0.05$). $H_0$ was rejected. The inclusion of the moderator variable size
increased the adjusted $R^2$ substantially to 50.5 per cent for organisations with 501 EFTs
or more. The impact on revenue refers to the extent to which the high-profile crisis
affected the revenue of the organisation from a value of having reached historically low
revenue levels to the position of having reached historically high levels. The factor F4
stakeholder relationships inner-core and crisis history had the strongest unique
contribution in explaining the dependent variable.

The factor F4 had negative standardised β and t values indicating a negative
correlation. However the standarised residual value fell outside our accepted criteria.
Therefore, despite the MRA statistically significant results, the $H_0$ hypothesis without
the moderator variable size was accepted.

5.7.1.3 Alternative Hypothesis H2.1

The HPCM post-factor analysis model is a significant predictor of the resignation of board members.

The HPCM model explained 28.6 per cent of the total variance using the
conservative statistical measurement of the adjusted $R^2$ with a value of the F statistic at a
significance level ($p < 0.05$). The inclusion of the moderator variable size increased the
adjusted $R^2$ substantially to 55.5 per cent at significance levels for organisations with
more than 501 EFTs, expressing with this value very strong predicting power. The
resignation of board members refers to the extent that the high-profile crisis determined their resignation from the position of being the main determinant to the position of not having been a determinant at all. Two factors F1 and F2 had strongly and positively standardised β and t values, indicating a positive correlation between the HPCM model and the resignation of the board members. Based on these statistical results the H₀ hypotheses with and without the moderator variable size were rejected.

5.7.1.4 Alternative Hypothesis H2.2

The HPCM post-factor analysis model is a significant predictor of the resignation of the CEO or managing director

The HPCM model explained 31.7 per cent of the total variance using the conservative statistical measurement of the adjusted R² with a value of the F statistic at a significance level (p ≤ .05). The inclusion of the moderator variable size increased the adjusted R² substantially to 58.7 per cent for organisations with more than 501 EFTs at significance levels, expressing with this value very strong predicting power. The resignation of the CEO or managing director refers to the extent that the high-profile crisis determined their resignation from the position of being the main determinant to the position of not having been a determinant at all. Two factors F1 and F2 had strongly and positively standardised β and t values, indicating a positive correlation between the HPCM model and the CEO or managing director. F1 had the highest unique statistical contribution to explain the dependent variable. Based on these statistical results H₀ hypotheses with and without the moderator size were rejected.

5.7.1.5 Alternative Hypothesis H2.6

The HPCM post-factor analysis model is a significant predictor of substantial organisational changes.

The HPCM model explained 12.6 per cent of the total variance using the conservative statistical measurement of the adjusted R² with a F statistic at non-significance level. The H₀ hypothesis was accepted. The inclusion of the moderator variable size increased the adjusted R² substantially to 52.1 per cent at a significance level for organisations with 501 EFTs or more, expressing with this high R² value a very strong predicting power. The substantial organisational changes refer to the extent
that the high-profile crisis determined these changes from a position of being the *main determinant* to the position of *not having been a determinant at all*. Two factors, F2 and F3, had strongly and positively standardised β and t values, indicating a positive correlation between the HPCM model and the substantial organisational changes. But F3 had the highest unique statistical contribution with strongly and negatively standardised β and t values to explain the dependent variable. Based on these statistical results the H₀ hypothesis, including the moderator variable *size* for organisations with 501 EFTs or more, was rejected.

### 5.7.1.7 Alternative Hypothesis H2.7

*The HPCM post-factor analysis model is a significant predictor of substantial policy changes.*

The HPCM model explained 25.2 per cent of the total variance using the conservative statistical measurement of the adjusted $R^2$ at a F significance level ($p \leq 0.05$). The inclusion of the moderator variable *size* increased the adjusted $R^2$ substantially to 36.1 per cent at a significance level for organisations with 501 EFTs or more, expressing with this $R^2$ value a very strong predicting power. The substantial policy changes refer to the extent that the high-profile crisis determined these changes from a position of being the *main determinant* to the position of *not having been a determinant at all*. The factor F4 had very strongly and negatively standardised β and t values indicating a negative correlation between the HPCM model and the substantial policy changes. This factor made the highest unique statistical contribution to explain the dependent variable. However, when including the moderator variable *size* for organisations with 501 EFTs or more no individual factor had β and t at significance levels. The H₀ hypothesis was in both cases rejected.

### 5.7.1.8 Alternative Hypothesis H2.10

*The HPCM post-factor analysis model is a significant predictor of a prolonged civil litigation process.*

The HPCM model explained 41.6 per cent of the total variance using the conservative statistical measurement of the adjusted $R^2$ at a F significance level ($p \leq 0.05$). The inclusion of the moderator variable *size* increased the adjusted $R^2$ substantially to
54.2 per cent at a significance level for organisations with more than 501 EFTs, expressing with these values a very strong predicting power. The prolonged civil litigation process refers to the extent that the high-profile crisis determined this type of litigation from a position of being the main determinant to the position of not having been a determinant at all. The factors F1 and F2 had very strongly and negatively standardised β and t values, indicating a negative correlation between the HPCM model and the running of a prolonged civil litigation process. The factor F1 made the highest unique statistical contribution to explain the dependent variable. However, when including the moderator variable size for organisations with 501 EFTs or more, the factor F3 became the strongest contributor factor with very high β and t values at a significance level ($p < .05$). The $H_0$ hypotheses were, in both cases, rejected.

5.7.1.9 Alternative Hypothesis H3.1

The HPCM post-factor analysis model is a significant predictor of the assessment on reputation.

The HPCM model explained 47.6 per cent of the total variance using the conservative statistical measurement of the adjusted $R^2$ at a F statistic significance level ($p < .05$). The inclusion of the moderator variable size increased the adjusted $R^2$ substantially to 55.7 per cent at a significance level. The assessment on reputation refers to the rating given by the organisation on the effect of the crisis outcomes after the high-profile crisis ended from a value of “excellent” to the position of “very bad”. The factor F3 had the highest β and t values at significance levels. Although the adjusted $R^2$ without the moderator variable size had a strong value, it had also a high standardised residual value of 2.597, but not sufficient to violate the MRA assumption of normality. The introduction of the moderator variable size increased the adjusted $R^2$ and reduced the standardised residual value to 2.463. The $H_0$ hypotheses were rejected in both cases.

5.7.1.10 Alternative Hypothesis H3.2

The HPCM post-factor analysis model is a significant predictor of the assessment of staff morale.

The HPCM model explained 46.1 per cent of the total variance using the conservative statistical measurement of the adjusted $R^2$ at significance levels. The
inclusion of the moderator variable \textit{size} increased the adjusted R$^2$ marginally to 49.3 per cent at a F statistic significance level ($p_{\leq 0.05}$). The assessment of staff morale refers to the rating given by the organisation on the effect of the crisis outcomes after the high-profile crisis ended from a value of “\textit{excellent}” to the position of “\textit{very bad}”. Although the adjusted R$^2$ without the moderator variable \textit{size} had a strong value, it had also a high standardised residual value of 2.799, but not sufficiently high to violate the MRA assumption of normality. There were no individual factors with unique explanatory statistics. The introduction of the moderator variable \textit{size} increased the adjusted R$^2$ and reduced the standardised residual value to 2.151. The alternative H3.2 hypothesis with and without the moderator variable \textit{size} for organisations with 501 EFTs or more was \textit{accepted}. The H$_0$ hypotheses were \textit{rejected}.

\textbf{5.7.1.11 Alternative Hypothesis H3.3}

The HPCM post-factor analysis model is a significant predictor of the impact on reputation.

The HPCM model explained 26.4 per cent of the total variance using the conservative statistical measurement of the adjusted R$^2$ at a F statistic significance level ($p_{\leq 0.05}$). The inclusion of the moderator variable \textit{size} increased the adjusted R$^2$ substantially to 42.8 per cent at a significance level. The assessment on the impact on reputation refers to the extent to which the high-profile crisis affected the revenue of the organisation from a value of having reached historically low revenue levels to the position of having reached historically high levels. There were no individual factors with unique explanatory statistics. The introduction of the moderator variable \textit{size} increased the adjusted R$^2$. The inclusion of this moderator variable also identified the factor F3 as the unique contributor to explain the variance. The respective H$_0$ hypotheses were \textit{rejected}.

\textbf{5.7.1.12 Alternative Hypothesis H3.4}

The HPCM post-factor analysis model is a significant predictor of the impact on staff morale.

The HPCM model explained 32.7 per cent of the total variance using the conservative statistical measurement of the adjusted R$^2$ at a F statistic significance level
(p≤.05). The inclusion of the moderator variable size increased the adjusted $R^2$ substantially to 41.4 per cent at a significance level. The assessment of the impact on staff morale refers to the extent to which the high-profile crisis affected the revenue of the organisation from a value of having reached historically low revenue levels to the position of having reached historically high levels. There were no individual factors with unique explanatory statistics. The introduction of the moderator variable size increased the adjusted $R^2$. The factor F3 had the highest β and t values at significance levels in both regressions with and without the moderator variable. The $H_0$ hypotheses were rejected.
Chapter 6
Research Findings

6.1 Main Findings

6.1.1 Introduction

In the following paragraphs we articulate our main qualitative and quantitative findings as a result of our case studies analysis and by testing our main and working hypotheses (H1 to H3). Whenever possible we compared these findings with the existing literature.

6.1.2 Findings

a. Our statistical analysis confirmed that our post-factor analysis HPCM is a valid and reliable instrument for measuring and predicting our constructs relationships and tangible non-financial and non-tangible crisis outcomes. The model that was built on the literature field comprises the following concepts: strategic crisis-preparedness planning (Sheaffer & Mano-Negrin, 2003), crisis preparedness via stakeholder history (Coombs & Holladay, 2001 and Gonzalez-Herrero & Pratt, 1996) and crisis history (Coombs & Holladay). See point 5.7 for more detailed.

b. The model confirmed the model research constructs of Coombs and Holladay (2001), insofar that our results confirmed that the amalgamation of the stakeholder relationships and crisis history dimensions are very useful to explain the variance in the dependent variables. Coombs and Holladay (2001) named this new dimension “performance history”. Coombs and Holladay used the performance history construct to explain the relationship between crisis responsibility, relationship and performance histories while we used it in this research to explain the variance in crisis outcomes.

c. Our statistical analysis confirmed strong relationships between our crisis-preparedness dimensions and our tangible non financial and non tangible crisis
outcomes, as such providing the required statistical evidence to answer our research questions.

d. The model did not produce enough statistical evidence to support a relationship between our 14 independent variables and the tangible financial crisis outcomes.

e. The strategic-preparedness dimension factors contributed the most to explain the variance in the crisis outcomes (explaining 19 out 22 variances).

f. Based on our statistical results, organisations that had in place strategies to manage a crisis based on these three dimensions (crisis-preparedness planning, stakeholder history, crisis history) tended, generally, to have lower negative crisis outcomes than those organisations which had in place practices addressing only two, one or none of these dimensions. This relationship was even stronger for large organisations (with 501 or more equivalent full-time staff).

g. Our qualitative analysis helped us to explain and understand the context, meaning and relevance of most of our quantitative findings.

h. Both our qualitative and our quantitative findings highlighted the importance of reputation, risk and issues management, the critical nature of establishing and maintaining excellent relationships with the Union and the staff and the importance of learning the lessons of previous crises to minimise the negative aspects of the crisis outcomes.

i. The factor F3 training of people in crisis management prior to the high-profile crisis was by far the factor that, with and without the moderator size, made consistently unique contributions to explaining the variance in the dependent variables (crisis outcomes).

j. The post-factor HPCM model identified clear and strong relationships between our independent and dependent variables, in particular to the reputation and staff morale crisis outcomes.
k. The moderator variable size increased the prediction values for large organisations (with 501 or more EFTs). The moderator variable inclusion increased the acceptance of our alternative hypotheses from 8 to 12.

In the following paragraphs we analyse our statistical findings by crisis outcome.

The statistical analysis regarding our HPCM model and the crisis outcomes identified 10 out of a total of 19 crisis outcomes with strong predictive results ($R^2$ adjusted) at F statistical significance level ($p \leq 0.05$).

6.2 Specific Findings

In the following paragraphs we analyse the main findings, noting relevant information captured in our qualitative studies. No relevant comparison with the literature was made as we could not identify equivalent studies. The available literature focused on one crisis outcome only: share price. However, this comparison could not be made as our share price crisis outcome indicator did not produce statistically significant results.

6.2.1 Tangible Financial Crisis Outcomes

The following results were analysed in two ways according to the methodology used to measure the tangible financial crisis outcomes. The first was analysed by taking the assessment of the respondent on the way they evaluated the outcome of the crisis from “excellent” to “very bad”. We called this measure “assessment”. The second analysis was made by assessing the crisis outcomes from an historical perspective. As such, we asked the respondent to compare the relevant crisis outcome from “a historically low level” to “a historically high level” (seven items). We called this measurement “impact” (see a more detailed explanation in Chapter 3). These statistical results were cross-referenced with the information collected and analysed in our qualitative studies.
6.2.1.1 Impact of Direct Financial Costs

Findings: We found that large organisations can minimise their direct financial costs if they implement key strategies related to training of the leader and crisis team and improving their pre-crisis relationships, with staff and the Union. This was concluded as we found a positive relationship between the HPCM model and the direct financial costs of the crisis. The model strongly predicts the impact that the high-profile crisis may have on organisations’ direct financial costs. In particular, the factors F3 training people and F4 relationships inner-core/crisis history played a unique statistical role in the regression. This means that if key variables comprising the F3 and F4 factors are implemented, we could reasonably expect that large organisations will achieve lower direct financial costs as a result of a crisis event.

Our regression analysis did not produce statistically significant results in relation to the “assessment” of the direct costs of the crisis. This is a reasonable outcome as the respondents (who generally participated in the decision-making process), may be biased towards over-estimating the positive outcomes of the crisis. But this tendency was more difficult to maintain when comparing the results, having an historical point of reference.

Our MRA was statistically significant for large organizations only. The MRA explained a significant 49.5 per cent of the variance in the impact of the direct financial costs of the crisis. The qualitative studies were consistent with these results, as the lack of training of the crisis leader and team at the RMIT and Pan Pharmaceutical seemed to have resulted in worst than expected direct crisis costs. RMIT spent hundreds of thousands of dollars getting external advice and trying to fix the computer software at any cost. Pan spent millions of dollars in external advice, unexpected product recalls and legal costs.

The “relationship history” dimension in all the organisations analysed in our qualitative studies also played a critical role. Esso’s lack of leverage with the Union under crisis conditions cost the organisation between $250 and $300 million. The RMIT crisis costs increased because it lacked strong relationships with the student union. Esso and Pan Pharmaceuticals did not learn from their own previous crises, although Esso did learn from other external crises. The RMIT and Seafood Industry had
no comparable experiences they could have learnt from internally. However, they could have drawn on crisis experiences gained by similar organisations but failed to do so.

6.2.1.2 Impact on Revenue

Findings: We found that organisations can protect their revenues from a crisis if they implement key strategies related to improving their pre-crisis relationships with staff and the union. This was concluded after finding a positive relationship between the HPCM model and the organisations’ revenue. The factor F4 which comprises the organisations’ relationship history with the staff and the union and the lessons learned from previous crises contributed significantly to predicting statistical regression results.

The predicting value of the model was high, explaining 35 per cent of the impact on revenue variance. The factor F4 relationships inner-core/crisis history made the strongest unique contribution to explaining the variance of the dependent variable “impact on revenue”. We identified a strong and significant positive correlation between the quality of the relationship with the union and staff members (stakeholders’ history), the lessons learned from previous crises and the impact on revenue. For instance, if the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the revenue impact was assessed as “excellent” and vice versa.

Low values of stakeholders’ relationships and lessons learned were correlated to low values of revenue and vice versa. The inclusion of the moderator variable size made the factor F3 training people, statistically significant (see more details in point 5.5.2.1.5).

The four organisations evaluated experienced substantial falls in revenue. Esso had a combination of factors as the organisation had a bad relationship with the union and did not learn from its own previous experiences. It is interesting to note that Seafood Industry, as the only organisation which had no problems with the union and no previous crisis experience, had its revenue stream only temporarily affected. In fact Seafood Industry revenues almost doubled six months after the crisis. Pan Pharmaceuticals did not learn from previous crises although the organisation did not have substantial relationship problems with the
union or the staff members. The regression identified training as a key factor, in particular for large organisations. The lack of crisis training was evident at the RMIT, Pan and Seafood Industry.

6.2.2 Tangible Non-Financial Crisis Outcomes

The respondents assessed the non-financial crisis outcomes from the range of the main determinant of this outcome to whether this outcome was not determined at all by this crisis. These statistical results were cross-referenced with the information collected and analysed in our qualitative studies

6.2.2.1 Resignation of Board Members

Findings: We found that organisations can minimise the risk of having members of the board resigning as a consequence of a high-profile crisis if they train their staff in crisis management areas, implement reputation management processes and plans in risk and issues management. We concluded this after finding that the overall model is a very strong predictor of the resignation of board members as an outcome of a crisis event, in particular for large organisation. There is a negative relationship between the HPCM model and the resignation of board members.

The predicting value of the model was high explaining 28.6 per cent of the variance and increased substantially to 55.5 per cent for large organisations. However, we could not identify a unique contribution factor for large organisations. When the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the respondents assessed the resignation of board members as an outcome that was not determined at all by the crisis. The factors F1 (training contents) and F2 (processes and documents) as strong contributor factors to the statistical MRA’s regression values for large organisations. The RMIT and Pan pharmaceutical crises provided additional information to explain this finding, as the lack of crisis management related knowledge and skills of the board members and the CEOs contributed to the escalation of the crises and ultimately to the resignation of their respective board’s Chairperson.
6.2.2.2 Resignation of the CEO

Findings: We found that organisations can minimise the risk of having the CEO resigning as a consequence of a high-profile crisis if the organisation maintains a strong pre-crisis relationship with the staff and the union. We concluded this after finding that the overall model is a very strong predictor of the resignation of the CEO as an outcome of a crisis event, in particular for large organisations. We concluded this after finding a negative relationship between the HPCM model and the resignation of the CEO.

The overall model is a very strong predictor of the resignation of the CEO as an outcome of a high-profile crisis event, in particular for large organisations. The factor F4 that comprises the organisation relationship with the staff members and the union and the lessons learned from previous crises was of particularly high value in this statistical regression in explaining the dependent variables. The inclusion of the moderator variable size increased the unique contribution made by the factors F1 and F2 to the regression.

The predicting value of the model was high, explaining 31.7 per cent of the variance for all the organisations and even higher for large organisations only, increasing to 58.7 per cent. The factor F4 made a unique contribution to the regression for all the organisations. For large organisations only, the factors F1 and F2 became statistically significant.

The Pan and the RMIT crises can explain this finding as the lack of crisis training, preparation of risk and issues management documented plans contributed directly to the demise of their respective CEOs.

6.2.2.3 Substantial Organisational Changes

Findings: We found that large organisations can minimise the risk of having to implement substantial organisational changes as a consequence of a high-profile crisis if the organisation implements reputation management processes, plans in risk and issues management, maintains a strong pre-crisis relationship with the staff and the union, and incorporates the lessons from previous crises. We concluded this after finding that the overall model is a very
strong predictor of substantial organisational changes as an outcome of a crisis event only for large organisations.

The MRA produced statistically significant results for large organisations, explaining 52.1 per cent of the variance. If the SP processes and documents was assessed as “extremely useful” to minimise the negative effects of the crisis and the crisis leader and the crisis team were trained in crisis management “in-depth” and the organisation crisis planning prevention documents and processes were in place, the organisational changes were assessed as “not being determined at all” by the high profile crisis. Our qualitative studies strongly suggest that the implementation of substantial organisational change is an unavoidable consequence of experiencing a high profile crisis event. These changes either aimed at better preparing the organisation for another crisis or aimed towards reducing the costs of the organisation to make up for the loss of revenues and to pay for the direct crisis costs. Based on the information gathered and analysed in our qualitative studies we can reasonably argue that the financial savings are the main driver behind organisations’ decisions to implement substantial organisational changes after a high profile event. The RMIT, Esso and Seafood Industry experienced substantial organisational changes. Seafood Industry transformed itself into a completely new organisation. Pan did not follow this path because ceased to exist as a business organisation.

6.2.2.4 Substantial Policy Changes

Findings: We found that large organisations can minimise the risk of having to implement substantial policy changes as a consequence of a high-profile crisis if the organisation maintains a strong pre-crisis relationship with the staff and the union and incorporates the lessons from previous crises. We concluded this after finding a negative statistical relationship between the HPCM model and the implementation of substantial policy changes. This relationship was stronger for large organisations.

The HPCM model explained 25.5 per cent of the variance for all organisations and 36.1 per cent for large organisations. The factor F4 relationships inner-core/crisis
history made the strongest unique contribution to explaining the dependent variable “substantial policy changes”. There is a strong and significant negative correlation between the relationships’ quality of the union and staff members (stakeholders’ history), the lessons learned from previous crises and the implementation by the organisation of substantial policy changes. If the relationship was assessed as “excellent” and the organisation “always” took the recommendation made from previous crises, the respondents assessed the implementation of substantial policy changes as an outcome that was not determined at all by the crisis. Low values of stakeholders’ relationships and lessons learned were correlated to high values of the crisis incident in the implementation of substantial policy changes and vice versa. The RMIT, Esso and Seafood Industry implemented substantial policy changes. Pan’s crisis forced the Australian Federal Government to change the law in relation to the information required to be provided to non-executive members of the board of management.

6.2.2.5 A Federal or State Inquiry

Findings: We found that large organisations can minimise the risk of having federal or state enquiries as an outcome of a crisis event if the organisation trains the crisis leader and team in depth. We concluded this after finding a negative statistical relationship between the HPCM model and the establishment of a federal or state inquiry. There is a negative relationship between the HPCM model and the establishment of a federal or state inquiry as a consequence of the high-profile crisis. This statistical relationship was stronger for large organisations.

The HPCM model explained 36.9 per cent of the variance and identified F1 and F3 as the factors with unique statistical power to explain the dependent variable variance. This percentage increased substantially for large organisations to 58.3 per cent. The factor F3 crisis leader and the crisis team made the strongest unique contribution to explaining the variance in the dependent variable.

The RMIT was subject to a state inquiry via the Victorian Auditor’s office. Pan experienced a number of federal inquiries. This finding was at odds with Esso’s crisis
training preparedness as Esso’s crisis team and the crisis leader were trained “in depth” before the crisis but this training did not avoid the establishment of a Royal Commission. However, the type and nature of crisis Esso went through (an accident that stopped the provision of gas to the State of Victoria) gave the organisation very little scope to avoid an enquiry of this nature.

6.2.2.6 A Prolonged Civil Litigation Process

Findings: We found that large organisations can minimise the risk of having a prolonged civil litigation process as an outcome of a crisis event if the organisation trains its staff in crisis management areas, implements reputation management processes and plans in risk and issues management. We concluded this after finding a negative statistical relationship between the HPCM model and the initiation of a prolonged civil litigation process.

The model explained 41.6 per cent of the variance. This percentage was even bigger for large organisations (54.2 per cent). The factor F1 training contents (strategic-preparedness dimension) and F2 crisis prevention process and documents (strategic-preparedness dimension – SP) made the strongest unique contribution to explaining the dependent variable “a prolonged civil litigation process”.

The F1 training contents had a moderator and significant negative correlation with a prolonged civil litigation process. Low values of training contents were correlated to high values for a prolonged civil litigation process and vice versa. If the staff was trained “in depth” in certain areas, a prolonged civil litigation process was not determined at all by the high-profile crisis.

F2 crisis prevention process and documents had a strong and significant negative correlation with the crisis outcome “a prolonged civil litigation process”. Low values of SP processes and documents were correlated to high values for a prolonged civil litigation process and vice versa. If certain SP processes and documents were considered as useful to minimise the negative crisis outcomes, then the prolonged civil litigation process was assessed by the respondent as an outcome not determined at all by the high-profile crisis.
The factor F3 made the strongest unique contribution to explaining the dependent variable once the moderator variable was included. Training “in depth” was highlighted as a key factor in our study to avoid the litigation process as the leader and the crisis team would tend to make mistakes that may result in private law suits. Pan Pharmaceuticals experienced a number of prolonged litigation processes. Pan was by far the organisation least prepared for a crisis.

6.2.3 Non-Tangible Crisis Outcomes

The following results were analysed in two ways according to the methodology used to measure the tangible non-financial crisis outcomes. The first was analysed by taking the assessment of the respondent on the way they evaluated the outcome of the crisis from “excellent” to “very bad”. We called this measure “assessment”. The second was made by assessing the crisis outcomes from an historical perspective. As such, we asked the respondent to compare the relevant crisis outcome from “a historically low level “to “a historically high level” (seven items). We called this measurement “impact” (see a more detailed explanation in point 3.4). These statistical results were cross-referenced with the information collected and analysed in our qualitative studies.

6.2.3.1 Analysis of the Assessment and Impact on Reputation

**Findings:** We found that the overall model is a very strong predictor of both the assessment and impact on the reputation of the organisation as an outcome of a high-profile crisis event, in particular for large organisations. We found that organisations can minimise the risk of damaging their reputation as a consequence of a high-profile crisis (assessment) if the organisation trains in depth the crisis leader and team. It is important to note that for the impact of reputation for all the organisations, no individual contributing factor was identified.

The model explained 47.6 and 26.4 per cent respectively of the variance of the assessment and impact of reputation. The factor F3 training people (strategic-preparedness dimension) made the strongest unique contribution to explaining the dependent variable “assessment of reputation”. The model substantially improved the
There is a strong and significant positive correlation between the level of training of key people and the reputation outcomes. Low values of training people were correlated positively to low values for reputation outcomes and vice versa. If the training of certain people was assessed as *in depth* then the reputation outcomes were assessed as excellent.

There was a strong and significant negative correlation ($r=-.556$) between the factor F3 training of people and reputation impact outcomes. Low values of F3 training people were correlated to high values for reputation impact outcomes and vice versa. If the organisation trained its people “*in-depth*” on crisis management *prior* to the crisis then the reputation outcome was assessed as having reached historically high levels and vice versa. All the qualitative studies pointed to a loss of organisational reputation. Seafood Industry avoided long-term damage to its reputation as it relied on external expertise and enjoyed a weak media-monitoring environment. The Seafood Industry recovered its reputation very quickly (six months after the crisis). However, the RMIT, Pan and Esso’s reputation suffered in the short, medium and long term.

### 6.2.3.2 Analysis of the Assessment and Impact on Staff Morale

**Finding:** We found that organisations can minimise the negative impact on their staff morale as a consequence of a high profile crisis if the organisation trains “*in depth*” the crisis leader and team. We concluded this after finding that the overall model is a very strong predictor of both the *assessment and impact of the staff morale* of the organisation as an outcome of a high profile crisis event, in particular for large organisations.

For the overall model assessment, we did not identify a strong contributory factor to explaining the dependent variable. However, on the impact on reputation, the factor F3 crisis leader and the crisis team was single out as the strongest unique contributor to explaining the dependent variable. This factor was more relevant for large organisations.
The post factor HPCM model assessment on staff morale explained 46.1 per cent of the variance in this dependent variable. None of the factors had a unique contribution to explain the variance. It explained 49.3 per cent in large organisations. There was a strong and significant positive correlation between F3 training people and staff morale assessment outcomes. If people were trained “in-depth” on crisis management before the crisis then the staff morale outcomes was assessed as “excellent” and conversely.

The model explained 32.7 per cent of the impact on staff morale and 41.4 per cent in large organisations. The factor F3 training people (strategic-preparedness dimension) made the strongest unique contribution to explaining the dependent variable “impact on staff morale”. There was a strong and significant negative correlation between the level of training of key people and the impact on staff morale ($r = -0.625$). If the training of key people in crisis management prior to the crisis was assessed as “in depth” then the impact of the crisis on staff morale was assessed by the respondents as “having reached historically high levels” and vice versa. The staff morale of Pan, the RMIT and Esso reached their lowest historical levels as a consequence of the crises. All three organisations failed to train their respective crisis leader and crisis teams. Esso was the only organisation which had trained its key staff “in depth” but just for one type of crisis.

6.2.4 Moderator Variable – Size of the Organisation

Findings: All the predicting key statistics were stronger after computing the results using the moderator variable size which we measured in terms of full-time equivalent staff (EFT). This effect was stronger for organisations with 501 or more EFT staff (referred to as large organisations in our research).

Additional contributor factors were identified when including the moderator variable. For instance, the factors F1 and F3 training people became unique contributing factors for “direct financial costs” and “substantial organisational changes” respectively. It was more appropriate to use the statistical findings including the moderator variable size to compare with our qualitative results from Esso and the RMIT
as these organisations were classified as large (having 501 or more EFTs). Pan and Seafood Industry did not belong to this category. However, Pan and Seafood Industry were umbrella organisations whose activities impacted on employees beyond their own operations.
Chapter 7

Implications of the Research Findings

Based on our findings we could argue that organisations that are crisis prepared (by addressing the dimensions and variables included in our post-factor HPCM model), could save millions of dollars by: reducing the direct crisis costs, the impact on revenue, keeping in place the leadership of the organisation, minimising the possibility of sudden substantial organisational and policy changes, and protecting the reputation and the staff morale of the organisation.

The findings of this study have potential implications for the following management areas:

- Strategic
- Financial
- Leadership
- Stakeholder relationships
- Organisational.

7.1 Strategic

7.1.1 The role of the board members and the CEO

Both our qualitative and quantitative findings stressed the critical importance of having the participation of the top executive management level of the organisation in crisis-preparedness activities as part of their strategic approach in order to minimise the negative outcomes of a high-profile crisis. A number of scholars argue that crisis management is a contemporary part of strategic management and that crisis planning has to be incorporated in the organisation’s strategic process (Chong, 2004, Pollard & Hotho, 2006). However, the development and implementation of crisis-management activities are usually subordinated to the second tier of executive managers, removed from the CEO and/or board member level and often relegated from the overall strategic
process of the organisation. This situation often happens despite the members of the governance level being the first victims of the crisis. It is still uncommon to see members of the board and the CEO participating in the crisis-planning process and/or the relevant training programs. For instance, only 6 per cent of our survey respondents were the CEOs of the organisation. In contrast, 11 and 13 per cent of the respondents’ organisations lost a board member or a CEO respectively as a consequence of the high-profile crisis. The governance level of the crisis-prepared organisations like Esso and Seafood Industry was not affected by their respective crisis events. However, crisis-unprepared organisations like Pan Pharmaceuticals and the RMIT both lost their CEOs and several board members.

7.1.2 Scenario Planning

We can now re-produce relevant crisis scenarios for training purposes based on our descriptive statistics and our qualitative information. This is a powerful training tool to upgrade the skills of board members, the CEOs and senior managers on crisis management. For instance we know the impact of a crisis

- Almost 50 percent of organisations took 6 months to return to their pre-crisis reputation and staff morale
- 66 percent of the crises lasted 21 days or less
- 75 percent of the crises had direct crisis costs of less than 5 million Australian dollars.
- 4 percent of the crises analysed had direct crisis costs of 1000 million Australian or more.
- 35% of crisis resulted in a regulators’ enquiry
- 74% had to implement un-expected policy changes
- 57% had to implement un-expected substantial organisational changes

We have also a solid idea about the evolution of the relationships between board members and the CEO pre, during and post-crisis. As an illustration of this point:
Relationships between the board members and the CEO:

- 91% of the respondents said the relationship between senior management and board members was either “excellent” or “good” before the crisis.
- Only 71% of the respondents said that the relationship between Senior Management and Board Members as “excellent” or “good” during the crisis.
- 72% of the respondents qualified the relationship between Senior Management and Board Members as “excellent” or “good” (a reduction of 19 points).
- 68% of the survey respondents had to spend more than 60% of their time managing the crisis but this time was not spent managing the crisis but the board relationship.
- In 86% of organisations the board members requested continuous or more than usual information from the CEO. This result was supported in our qualitative studies by comments made by KM3:

  …In fact, the top executives of the organisation, effectively stopped running the organisation, to spend most of their time satisfying the needs of information coming from the (Board) and the State Government. It is ridiculous! -KM3”

- In 94% of organisations the CEO himself/herself requested the same amount of attention from senior managers and the crisis team members.

Crisis motivation

- 65% of organisations had the perception that the crisis was politically motivated by the media.
- 43% of organisations had the perception that the crisis was politically motivated by politicians. However,

  “…negative national, state and local newspapers stories remained at 47% average independently of the crisis”.

The following practices should be thought of by the organisation as practices that may reduce the possibility of the resignation of board members, the CEO and unexpected substantial or organisational changes:

- Include crisis planning as part of the overall strategic process of the organisation
- Involve the board members and the CEO in the crisis planning and training process
- Train in depth the crisis leader and the crisis team
- Develop crisis management plans either as part of the risk management process of the organisation or as a crisis management strategy
- Develop corporate reputation protection processes
- Develop and implement issues management processes and plans, in particular those aimed at preventing or managing a crisis event.

7.2 Financial

The direct cost of the crisis could be very high for those crisis-unprepared large organisations. For instance 75 per cent of the 48 respondents to our survey, had crises that cost less than $5 million, 21 per cent that cost between $6 million and $500 million and 4 percent that cost $1001 million or more. As 68 per cent of the organisations surveyed had 501 or more EFTs, it is reasonable to deduce, based on our predicting statistics, that some of the large organisations were highly prepared and reduced the cost of the crisis to less than $5 million while other large organisations paid a significant financial price for being unprepared. Our qualitative studies supported this view in the case of Esso, an organisation that was prepared to confront a particular crisis scenario (a plant explosion). Esso’s crisis preparedness reduced the cost of managing the fallout of the plant explosion. However, Esso was not at all prepared to confront the union or the Royal Commission under crisis conditions. The Longford crisis cost Esso dearly ($250 million plus). Despite these crisis costs, 21 per cent of our respondents could not identify the amount of money spent by their organisations on crisis prevention and 6 per cent indicated that they were not spending money at all on such activities. The bulk of the respondents (64 per cent) spent $5 million or less per year on crisis prevention, planning and management activities.
The *loss of the revenue* generated by a crisis can last a long time. More than 36 per cent of our respondents indicated that it took more than six months for their organisations to return to their pre-crisis level of revenue. Eleven per cent had not recovered this revenue level at the time the survey was completed.

Our MRA identified some types of training (crisis management, media crisis, spokesperson coaching, internal communications, message development and issues management) as relevant practices to reduce the direct cost of the crisis and the impact on revenue. The quality of the relationships with the union and staff members and crisis history were also statistically significant (see 5.5.1 Main MRA Statistical Results). The following practices should be considered carefully by any organisation aiming to reduce direct crisis costs and loss of revenue:

- Train the crisis leader and team on:
  - crisis management
  - media crisis
  - spokesperson coaching
  - internal communications
  - message development
  - issues management.

- Allocate specific financial and non-financial resources to strengthen the quality of the relationship with the union and staff members.

- Develop processes to learn and incorporate the lessons from previous crises into the crisis-planning process.

- Develop and implement internal communication protocols and channels under crisis situations.

- Develop and implement award conditions and protocols with the union under crisis situations.

### 7.3 Leadership

We assumed, based on the relevant literature, that the sudden departure of either a board member or the CEO is generally negative for the organisation’s financial,
strategic and reputation position, as such crisis-preparedness practices that tend to reduce this possibility are seen as good for the organisation (Ward et al. 1999; Farrel and Whidbee, 2000; Gibelman and Sheldon, 2002; Miller, 1993).

Based on our statistical analysis (see 5.5.1 Main MRA Statistical Results), the following practices should be thought of by the organisation as practices that may reduce the possibility of board members and/or the CEO resigning as a consequence of a high-profile crisis:

- Include crisis planning as part of the overall strategic process of the organisation
- Involve the board members and the CEO in crisis planning and training process
- Train staff on:
  - crisis management,
  - media crisis,
  - spokesperson coaching,
  - internal communication,
  - message development and
  - issues management
- Develop crisis-management plans either as part of the risk management process of the organisation or as a crisis-management strategy.
- Develop reputation protection processes.
- Develop and implement issues management processes and plans.
- Allocate specific financial and non-financial resources to strengthen the quality of the relationship with the union and the staff members.
- Develop processes to learn and incorporate the lessons from previous crises into the crisis-planning process.
- Develop and implement internal communication protocols under crisis situations.
- Develop and implement award conditions and protocols with the union that would operate under crisis situations.
7.4 Stakeholder Relationships

Organisations try to improve their stakeholder relationships for a variety of reasons: financial, industrial, productivity, etc. For instance, from the industrial relations perspective, the relationship between the organisation and the union has been widely researched. Heaton et al. (2000) argue that union relationships may both facilitate and constrain management decisions and the implementation of policy. The debate according to these authors is about trying to increase employee satisfaction in order to improve organisational performance, and the union plays a key role in achieving this goal. Other studies are more specific on ways of motivating the staff to improve their staff morale (concept also referred to in the literature as employee morale/satisfaction, organisational morale and/or work climate). Some studies, like the one conducted by Worthy (1950) and Lindgreen (1982), conclude that employee morale and operating efficiency are closely related. Organisations try to develop and maintain a positive work climate where positive staff morale can increase. Authors like Kippenberger (1997) find links between “… employee satisfaction and business performance in many of the world's leading companies”. Johnsrud and Rosser (1999) argue that low staff morale is conducive to a high staff turnover. For Johnsrud et al. (2000), staff morale has an impact on behaviour (specifically on staff turnover) and attending to it makes organisational sense. These authors argue that work-life conditions, like the quality of communication and the relationship with supervisors, are key to understanding this phenomenon.

Our findings in particular stressed the critical importance and contribution of the strategy of “in-depth” training of key people in the organisation in charge of managing the crisis to minimise negative staff morale outcomes from a high profile event. This training is “a must” for large organisations. The qualitative studies (Seafood Industry and Esso) also identified and highlighted as a core theme, the important role that the training of key staff members play in the successful management of the crisis.

From the crisis perspective, our findings clearly indicate the key strategic need, for any organisation, in maintaining a strong relationship with their workforce. The union and staff in general, have to be involved in the implementation of the crisis
management process and kept informed of the actions taken by the organisation to manage it before this information reaches the media.

The Esso and Seafood Industry internal communication strategies were crucial in managing their respective crises. The MRA’s results indicate (see points 6.2.2.1 and 6.2.2.2) that an effective crisis management strategy requires a strong relationship with the workforce. The training of the crisis leader and crisis team help them to understand this key relationship and maintaining it is importance in minimising the negative crisis outcomes.

The following practices should be thought of by the organisation as practices that may reduce the possibility of negatively affecting the staff morale as a consequence of a high profile crisis:

- Training of key people within the organisation in charge of managing a crisis.
- Developing and implementing internal communications protocols under crisis situations.
- Developing and implementing award conditions and protocols with the union that would operate under crisis situations.
- Allocating specific financial and non-financial resources to strengthen the quality of the relationship with the union and the staff members.

7.5 Organisational

7.5.1 Substantial Organisational and Policy Changes

Some studies indicate that sudden organisational changes and policy changes may affect the organisation negatively on several fronts. In crisis conditions organisations tend to downsize to reduce costs and improve the bottom line of the organisation, in particular if/when the cost of the crisis is high and the revenue is impacted, as found in our study.

Although no other studies were found on the specific effect of substantial organisational changes under crisis conditions, we borrowed from parallel research studies that have focused on the negative consequences of short-term strategies such as downsizing. Cascio (2005) argues that a responsible restructuring takes into
consideration the staff as the firm’s assets. Wilkinson (2005) expresses concerns about the effectiveness of the downsizing strategy that he calls “the post downsizing anorexic organisation”. Zyglidopoulos (2005) concludes that “… downsizing has a negative impact on corporate reputation”. Conversely, authors like Bhattacharyya and Chatterjee (2005) suggest that in order to take advantage of the downsizing strategy, a planned approach to the implementation process is required to obtain sustained and long-term benefits for the organisation.

Marcus and Goodman (1991) suggest that the development of new policies in times of crisis may provoke conflicts between the shareholders and the crisis victims as managers have to decide between either accommodating policies (that benefit the victims) or defensive policies (that benefit the shareholders). Our findings indicate (see points 6.2.2.4 and 6.2.2.5) that some specific strategic-preparedness processes and documents, the crisis training of key staff, a strong relationship with the union and the workforce and the lessons learned from previous crises are critical in minimising the possibility of substantial policy and organisational changes.

- Allocate specific financial and non-financial resources to strengthen the quality of the relationship with the union and the staff members.
- Develop and implement processes to learn and incorporate the lessons from previous crises into the crisis planning process.
- Develop and implement internal communication protocols in crisis situations.
- Develop and implement award conditions and protocols with the union in crisis situations

7.5.2 Reputation and Staff Morale

Ulrich and Smallwood (2005), citing research carried out by accounting professors Baruch Lev and Paul Zarowin, claim that between 1960 to 1990, 75 to 90 per cent of the market value of a firm could be predicted by the financial performance of the firm. But the authors point out that this percentage has dropped to about 50 per cent since 1990. This means that an increasing market value of a firm is tied to what the financial
community calls “intangibles”. Reputation and staff morale are the most know components of these intangible assets.

Acquaah (2003) finds a special role for corporate reputation as a moderator variable where: “… corporate reputation activities play a synergising role, reinforcing the relationship between organisational competencies and firm performance”. Barney (1991) and Hall (1993) maintain that product and company reputation are a firm’s source of competitive advantage. Hall (1993) claims that reputation “… which is usually the product of years of demonstrated superior competence, is a fragile resource, it takes time to create, it cannot be bought and it can be damaged easily”. Hall (1992) finds that executives in the UK ranked reputation at the top of the most important intangible assets of a firm. Deephouse (2000) goes beyond this by concluding that, “… a more favorable reputation increases performance”. A firm, good reputation also increases an organisation’s ability to attract, retain and motivate employees (Chauvin & Guthrie, 1994). Our qualitative and quantitative analyses identified the crisis and reputation management processes, the risk and issues management documents as key strategic practices that are useful to minimise the overall negative outcomes of the crisis. In particular these processes and plans could minimise the risk of small and large organisations having to embark on prolonged civil litigation processes, the resignation of board members and the CEO and sudden substantial policy and organisational changes (see testing hypotheses point 5.5.2). Of the organisations which had crisis and reputation management processes in place, 85 and 84 per cent respectively said that these processes were extremely useful or useful in minimising negative outcomes. In relation to the organisations which had risk and issues management documents, 80 and 77 per cent respectively said that these plans were extremely useful or useful in minimising the negative outcomes. Our MRAs identified the reputation management process and risk and issues management documents as critical practices that minimise the possibility of the resignation of board members or the CEO and/or prolonged civil litigation processes (see 5.5.1 Main MRA Statistical Results).
Table 7.A: Implications of the Research Findings

<table>
<thead>
<tr>
<th>Management area/key practices</th>
<th>Strategic</th>
<th>Financial</th>
<th>Leadership</th>
<th>Stakeholder relationships</th>
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<tbody>
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<td>Reputation process</td>
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<td>Risk management plan</td>
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<td>Issues management plan</td>
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<td>Training the leader of the crisis management team</td>
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<tr>
<td>Training the crisis management team</td>
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<td>Training in crisis management areas*</td>
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<tr>
<td>Improving rel. w/union</td>
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<td>Improving rel. w/staff</td>
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<tr>
<td>Incorporating lessons learnt from previous crises</td>
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*Crisis management, Media crisis, Spokesperson coaching, internal communications, Issues management, Message development.
Chapter 8
Conclusions, Contributions, Limitations and Further Research

8.1 Main Conclusions

8.1.1 Purpose

The purpose of the study was to develop a high-profile management model from the literature and then test hypotheses within the model in order to identify strategies aimed at minimising the negative outcomes of a crisis event. Based on our statistical findings (see Chapter 6), we could reasonably conclude that we achieved the purpose of the study in relation to tangible non-financial and non-tangible crisis outcomes. The results of the model regarding tangible financial crisis outcomes were inconclusive. During this research process we identified key independent variables that could minimise the negative outcomes of a high-profile crisis event.

8.1.2 Research Question and Objectives

We started our research project with the aim of finding answers to this question:

*Do the dimensions of strategic crisis preparedness, stakeholder relationship history and crisis history contribute significantly to the minimisation of negative outcomes of a crisis event?*

and to meet the following objectives:

a  To demonstrate the strength of the relationship between crisis preparedness dimensions: strategic preparedness, stakeholder relationship history, crisis history and measurable crisis outcomes, by testing hypotheses formulated from the literature

b  To identify which crisis preparedness dimension best explains and predicts the crisis outcomes
We could neither find an answer to this question nor meet our objectives from the literature review as no comprehensive research had been done to establish the link between these high-profile crisis dimensions (strategic preparedness, stakeholder relationship history and crisis history) and crisis outcomes. In order to answer this question we had to gather and analyse relevant information to link these dimensions and establish the type and strength of these relationships, if any. Our research findings gave us the evidence necessary to answer our research question in the positive and to meet our objectives. Therefore, we can now argue, based on statistical evidence, which the dimensions of strategic crisis preparedness, stakeholder relationships history and crisis history contribute significantly to the minimisation of some negative outcomes of a crisis event.

The research objective “a” was met as our research found strong relationships between crisis-preparedness dimensions: strategic preparedness, stakeholder relationship history and crisis history and measurable crisis outcomes. Some strategic processes and plans such as the reputation, risk, crises and issues management do have positive effects on the crisis outcomes and the quality of the relationship the organisation maintains with certain stakeholders is critical in minimising the impact of negative crisis outcomes. The research also concludes that the incorporation of the lessons learned from previous crises is paramount to develop an effective crisis strategy. It provides a strategic guide to allocate organisational resources based on their crisis effectiveness in maximising results measured by the crisis outcomes described in this research.

The objective “b” of identifying the best crisis-preparedness dimension that best explains and predicts the crisis outcomes was met. We identified the strategic preparedness dimension as the one that better explains and predicts the relationship with the crisis outcomes (dependent variables). This dimension counted for 19 out of 22 contributing factors to explain the variance in our dependent variables (crisis outcomes).

Our findings are consistent with some of the literature (Coombs & Holladay, 2001 and Gonzalez-Herrero & Pratt, 1996) in relation to the corporate reputation benefits gained by a socially responsible pre-crisis strategy. However, we did not find parallel literature findings in relation to crisis outcomes. It is important to note that the findings are a statistical association only. The results do not guarantee that the
implementation of the recommended practices will definitely minimise the negative crisis outcomes of the crisis. There are a few organisations that may achieve better crisis outcomes without implementing any of the recommended strategies and vice versa.

One of the central findings of this study is that the post-factor HPCM model is a reliable and valid instrument for predicting relationships between our crisis dimensions: strategic preparedness, stakeholder and crisis history and our tangible non-financial and non-tangible crisis outcomes. However, our model could not explain the variance in a number of instances. For example, our model for all organisations (small and large) did not explain variance of five out of six initial tangible financial outcomes (assessment of direct financial costs, revenues, profits and impact on direct financial costs, revenue and profits); four out of nine of our tangible non-financial outcomes (resignation of senior manager, criminal charges to staff, substantial organisational changes and a regulator’s enquiry). The model, did not explain for large organizations, the variance of four out of six initial tangible financial outcomes (assessment of share price revenues, profits and impact on direct financial costs, share price and profits) and three out of nine of our tangible non-financial outcomes (resignation of senior manager, criminal charges to staff, the appointment of independent administrators and a regulator’s enquiry).

However, the HPCM is a very strong model to explain the variances of non-tangible crisis outcomes (assessment and impact on reputation and staff morale) in particular for large organisations. The model is also a strong predictor of two tangible financial outcomes (assessment of direct financial costs and impact on revenue) and six non-financial outcomes (resignation of board members and the CEO, substantial organisational and policy changes and a federal/state inquiry and a prolonged civil litigation process).

Consultants and practitioners advise clients on strategic courses of action without empirical evidence that these actions are effective in managing a crisis. The following general advice is often given by consultants and practitioners:

“A crisis plan will prepare you to manage a crisis.”
“A strong corporate reputation will help you to manage a crisis.”
“Leave the management of the crisis to experts.”
But this advice does not make any links about the benefits of implementing certain crisis planning practices in relation to the crisis outcomes. The lack of indicators to measure the effectiveness of the strategies across the industry has been conducive to the production of generous crisis management self-evaluations, made by organisations and their consultants, about the way they managed it and the results they achieved. This lack of crisis indicators has not allowed meaningful comparisons between the effectiveness of different strategies across the business community in order to establish the field’s “best practice”.

Conversely, some academics have questioned the effectiveness of this kind of advice (Marra, 1988), for instance in relation to the implementation of crisis plans. They argue that processes are more important than the formal document and that reputation enhancement practices are highly effective in managing certain aspects of the crisis (like the attribution of blame). However, the scholars have not established clear links between these practices and the crisis outcomes (with the exceptions mentioned in the literature review on the financial impact on share price). Our study established this link and, based on our results, we can argue that some processes and some plans are key to the minimisation of negative crisis outcomes. For instance, the reputation process seems to be more relevant than a documented plan. Conversely, the risk management and issues management documented plans seem to be of more value to manage a high-profile crisis than having just the processes in place.

Overall the findings showed that a typical organisation in Australia and/or New Zealand (in particular a large organisation) is more likely to minimise negative crisis outcomes during a high-profile crisis event by implementing the practices recommended by our research.

8.2 Specific Conclusions

8.2.1 Tangible Financial Crisis Outcomes

The HPCM model explains the variances of the impact on the revenue for all organisations and the direct crisis costs for large organisations only. Our moderator variable “size” of the organisation in relation to the equivalent full time staff, highlighted the relevance of these results for large organisations. It is reasonable to conclude that large organisations tend to have more resources and as such develop the
capacity to prepare for high profile crises. As such statistical inferences could be made with large organisations which had for instance a risk management plan in relation to others which may not have one. We could assume that small organisations did not have these types of plans, probably, because they could not afford them.

The results of this study have been interpreted to mean that with less focus on certain traditional areas like the relationship with the media, *it is still possible* to minimise the impact on revenue and to reduce the direct cost of the crisis. For instance, many organisations allocate more resources to maintain a close relationship and to communicate with the media than to improving its internal communications processes, in particular during a crisis. But our research shows that for strategic reasons, the relationship with the union and the staff are the key in minimising negative crisis outcomes.

Many organisations see the value of learning the lessons from previous crises. However few of them would take the step of implementing post-mortem processes and incorporate their recommendations into their crisis strategy. Esso is a good example in regard to this crisis management shortcoming. Despite Esso experiencing its biggest high-profile crisis in Australia in 1998, with a cost of more than 500 million dollars, it had not officially incorporated the lessons of the crisis post-mortem, at the time of carrying out the qualitative study in 2004/05.

The study casts a strong light onto the type of training that organisations could implement in order to minimise the loss of revenue and the high direct crisis costs. It is critical to train the leader and the crisis team *in depth* in particular in the areas of crisis management, media crisis communication, spokesperson coaching, internal communication, message development and issues management. These independent variables strongly explained the variance in the revenue and direct crisis costs. Our qualitative study suggests that it is common to have a member of the board or the CEO themselves taking charge of the crisis and, as such, it is *a must* to upgrade their crisis knowledge and skills via formal training and scenario planning *before* the crisis.
8.2.2 Tangible Non-Financial Crisis Outcomes

The HPCM model explains the variances of the resignation of board members and the CEO, substantial policy changes, a federal or state inquiry and a prolonged civil litigation process for all the organisations and substantial organisational changes for large organisations only. Our study’s three dimensions and 14 independent variables were found to have a direct influence on minimising the negative crisis consequences in 5 out of 9 non-financial crisis outcomes. The results of this study have been interpreted to mean that with a more focused crisis-planning strategy to target the independent variables identified by our model (implementing reputation processes, developing documented risk and issues management plans, in-depth training of the crisis leader and crisis team in specific crisis areas, maintaining an excellent relationship with the union and the staff and incorporating the lessons from previous crises), it is possible to achieve better crisis outcomes than dissipating the planning process in a variety of common and usually costly practices with no proven empirical evidence on their effectiveness. For instance, some organisations may get better value concentrating on developing reputation processes than on the formal production of a reputation plan, or spending fewer resources on improving relationships with local and state governments and more resources on improving its relationships and planning to communicate better with staff and the union before and in times of crisis.

Based on the post-factor analysis HPCM regression model, it can be concluded that organisations have to implement several of our 14 practices (derived from our independent variables – implementing reputation processes, developing documented risk and issues management plans, in-depth training of the crisis leader and crisis team in specific crisis areas, maintaining an excellent relationship with the union and the staff and incorporating the lessons from previous crises) to influence the relationship between crisis preparedness and the resignation of board members. This means that a single practice is not sufficient to significantly explain the resignation of board members, in particular for all organisations (small and large). We found that for large organisations, the resignation of board members was influenced by two factors: the type of training and the type of crisis-planning preparations put in place. For instance, the reputation process, risk and issues management were practices that have a direct
influence on the resignation of board members. This finding could not be compared with other literature.

Based on our findings, if organisations want to avoid the risks of losing their CEO, the best strategy is to allocate resources to improve the quality of the relationship with the staff and the union and to incorporate the lessons learnt from previous crises into the crisis-planning process. These two independent variables explained a significant deal of variance (more than 50 per cent) in the resignation of members at the governance level. We must stress that the relevant literature supports the view that when a CEO is forced to resign they are followed by the members of the board and vice versa. Our qualitative study on the RMIT illustrates this point well. The most surprising finding, contrary to accepted assumptions by the practitioners’ community, was that the quality of the relationship with the shareholders does not explain variance in the resignations at the governance level.

The quality of the relationship with staff and the union and the incorporation of the lessons learnt from previous crises, are independent variables that explain variance in the implementation of substantial policy changes. This influence is stronger for large organisations.

It was surprising to find that the regression results on the substantial organisational and policy changes (dependent variables) were particularly strong for large organisations (the regression explained more than 50 per cent of the variance in the case of organisational changes). We can reasonably speculate that large organisations tend to react very strongly as a consequence of a high-profile crisis event and this reaction takes the form of implementing substantial policy and organisational changes with two objectives in mind. The first is to reduce costs by restructuring the organisation to recover both some of the direct crisis costs and the loss in revenue. The second objective is to better prepare for future crises. However, it seems that the first objective is usually the driving force behind these substantial changes and the second one may never be achieved.

The study concludes that as a consequence of a high-profile crisis event, it is likely there will be a federal or state inquiry (28 per cent) and/or a prolonged civil litigation (31 per cent) process. The predictor statistics were strong without the moderator variable (more than 37 per cent), and these statistics increased significantly
with the inclusion of the moderator (more than 50 per cent). The analysis showed that for large organisations, the variables of training/people and contents (represented by the factors F1 and F3) were very strong negative predictors of crisis outcomes. Based on our findings, it is reasonable to conclude that a federal and/or state inquiry and/or a prolonged civil litigation process as a consequence of the high-profile crisis event would only take place in the absence of in–depth training of the crisis leader and team on crisis management issues (crisis management, crisis media, spokesperson coaching etc). It was interesting to note that none of the dimensions and variables of our post-factor HPCM model has a direct influence on the establishment of a regulator’s enquiry. The regression did not find any independent variables that explain the variance. This was the case despite the high number of regulators’ enquiries identified by the research in our sample (36 per cent).

8.2.3 Non-tangible Crisis Outcomes

The HPCM model explains strongly the variances of the assessment and impact of both reputation and staff morale for all organisations (small and large). The predictor statistics for assessment of reputation and staff morale were strong for all organisations (more than 45 per cent), and very strong for large organisations (almost 50 per cent). The analysis showed that in-depth training of the leader and team (independent variables, represented by the factor F3) for all organisations was a very strong positive predictor of the assessment of both reputation and staff morale (more than 47 per cent) and moderator predictor (more than 26 per cent) for the impact of the corporate reputation’s outcome. For large organisations the predicting statistics for reputation were substantially stronger than for all the organisations (56 per cent for assessment and 43 per cent for impact). Based on the regression results, it is reasonable to conclude that a strong training program for the people responsible for managing the crisis is likely to minimise the damage to the reputation of the organisation as a consequence of a high-profile crisis. These training practices would be the best strategy that organisations can put in place to protect this valuable intangible asset.

For staff morale the regression results are also very solid. For all organisations the predicting statistics for the assessment of staff morale was more than 46 per cent. For large organisations this increased to 49 per cent. Based on the post factor analysis
HPCM regression model, it can be concluded that organisations have to implement all fourteen practices (derived from our independent variables-implementing reputation processes, developing documented risk and issues management plans, in-depth training of the crisis leader and crisis team in specific crisis training areas maintaining an excellent relationship with the union and staff, and incorporating the lessons from previous crises) to strongly influence the relationship between crisis preparedness and the assessment on staff morale. This means that a single practice is not sufficient to significantly explain the variance on the assessment of staff morale for small and large organisations.

However the identification of a main single contributor practice was possible for the impact on staff morale where the predicting statistics resulting from our regression show a very strong association of between this crisis outcome and factor F3 training of staff (in-depth). The impact on staff morale for the total of our sample reached 33 per cent. For large organisations this increased to 41 per cent. Once more, the independent variable training for the leader and team (independent variables, represented by the factor F3) strongly explained the variance for all the organisations in our sample.

We can reasonably conclude that is very likely for an organisation that implements the 14 practices included in our model, to have positive outcomes in terms of corporate reputation and staff morale. In the scenario where an organisation does not have enough resources to implement all the recommended practices, the training of the crisis leader and their team should take priority over other practices.

8.3 Contribution

8.3.1 Contribution to Knowledge

According to Whetten (1989), theoretical insights come from demonstrating how the addition of a new variable significantly alters our understanding of the phenomena by re-organising our causal maps. He adds that important changes in the “what” and “how” of a theory are frequently stimulated by surprising research results, and that in the process of gathering either quantitative or qualitative data, scholars are
often confronted with an inconsistency between their observations and conventional wisdom. We articulated our contributions based on Whetten’s approach. A more detailed analysis on these study contributions are summarised in Table 8.A. Theoretical Contribution (constructed using Whetten’s 1989 framework on the contribution issue).

According to Pearson and Mitroff (1993), the relationship between crisis management and stakeholders, outside the crisis management team, has been largely overlooked. This study addressed this gap in knowledge by testing the relationship between crisis preparedness and crisis outcomes where the relationship with stakeholders outside the crisis management team was included. Most of the studies in the field to the present have focused on other types of relationships not associated with crisis outcomes (with the exception of those studies aimed at measuring the impact of crises on share price).

This study provides new insights to manage a crisis event effectively based on pro-active measures (crisis-preparedness planning) and resilience measures via stakeholders’ relationships and learning from previous crisis events, based on a rigorous statistical analysis.

The study contributes to the management’s understanding of the important practical problem of reducing the negative impact generated by a high-profile crisis and the dimensions and variables involved in advancing towards the solution of this problem.

The study contributes to the literature by identifying key practices that could result in better crisis outcomes.

There is no other study in the literature, to the best of our knowledge, which uses a comprehensive data base of 50 organisations which experienced a high-profile crisis, analysed using a rigorous multivariate method of analysis, to test the strength of the relationships between crisis preparedness and effective management dimensions.

This study used a meticulous data collection method and analysis associated with the four case studies. We collected information from more than 5000 news articles, interviews with people who participated directly in the crisis management strategy of their respective organisations, we analysed court papers, audits and federal, state or royal commission’s Reports etc.
This study contributes towards the objective of addressing the lack of crisis-preparedness studies focusing on Australia and New Zealand organisations, as most of the studies identified in this field are either case studies or studies carried out borrowing data and experiences from other countries (USA and Europe). Only one empirically relevant study was identified in New Zealand (Ewing-Jarvie, 2002).

Table 8.A: Theoretical Contribution

<table>
<thead>
<tr>
<th>Whetten Dimensions</th>
<th>Study Theoretical Contribution</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does the model’s change/affects the accepted relationships between the variables?</td>
<td>The relationships proposed have not been empirically tested yet.</td>
<td>By testing alternative H1, H2 and H3 See Pearson and Mitroff (1993:49)</td>
</tr>
<tr>
<td>How would the additional variables significantly alter our understanding of the phenomena?</td>
<td>It would provide new insights on how to manage effectively a crisis event based on proactive measures (crisis preparedness + planning) and resilience measures via stakeholders relationships and learning from previous crisis events</td>
<td>Coombs and Holladay (2001), Fearn-Banks (1993)</td>
</tr>
<tr>
<td>What -Factors: comprehensiveness and parsimony</td>
<td>Comprehensive: The model is comprehensive because it includes the main key constructs based on the literature review: Strategic Preparedness, Relationship History and Crisis history. However these constructs had never been linked before in an empirical study within the crises outcomes context. Parsimony: The three key dimensions are assessed as sufficient and necessary to understand the phenomena.</td>
<td>See Whetten (1989:490)</td>
</tr>
<tr>
<td>Who, Where and When factors are explicit?</td>
<td>Yes. The study was conducted in Australia and New Zealand</td>
<td>As a way of identifying the contextual limits of the proposition</td>
</tr>
<tr>
<td>Are there any substantial changes in the boundaries of the theories used as source (borrow from)</td>
<td>Yes, the study makes the assumption that cultural, social and legal factors moderator the strength of these relationships. (having size of the organisation as our moderator variable)</td>
<td>See Taylor (2002) and Schneider and Meyer (1991)</td>
</tr>
<tr>
<td>Is the study challenging any assumptions from field theories?</td>
<td>Yes, • The need to train board members (executive and non-executive) on crisis management</td>
<td>See Marra (1992), Yang (1999), Duke and Masland (2002) and Fearn-Banks (1993)</td>
</tr>
</tbody>
</table>
8.3.2 Contribution to the Crisis Management Field

The following is a list of the main contributions made by this study to the crisis management field:

a. Developing a HPCM model from the literature that is a valid instrument for measuring and predicting our constructs relationships with the crisis outcomes, in particular tangible-non financial and non-tangible crisis outcomes. As such this model could be used for further research projects to measure other type of relationships (i.e. between the 14 independent variables and other crisis outcomes).

b. Developing an articulated set of crisis practices used by organisations to manage a high-profile event.

c. Developing an articulated set of crisis outcomes indicators that could be used for researchers and practitioners to benchmark management crisis outcomes across different industries.

d. The use of empirical quantitative and qualitative data to evaluate the impact of crisis-preparedness dimensions on crisis outcomes.
Based on our findings, managers could identify key practices, allocate and prioritise crisis-preparedness financial and non-financial resources.

8.4 Limitations of the Study. Future Research

8.4.1 Limitations of the Study

Although this research is one of the most comprehensive empirical and qualitative studies undertaken in this field, it does have a number of limitations, and these give rise to a number of suggestions for further research. The internal validity of the HPCM constructs is acceptably strong, but there is room for improvement. Further empirical research could pre-test factors which more accurately reflect crisis preparedness, and which would hopefully achieve higher validity scores. Further research on refining the constructs and their dimensions is warranted.

The study collected information on 50 organisations which had experienced a high-profile crisis event. This number of organisations fell within the statistical borderline to conduct multivariate analysis. The results and conclusions of this research should only be regarded as “indicative” when we are referring to subsets of our sample of 50 organisations. This is the case when we provide information by organizational size (small and large firms).

The nature of all the hypotheses would warrant the collection of empirical information from at least 100 organisations that experienced a high-profile crisis event and a further 100 organisations that may not have experienced this type of event. The additional 50 organisations that experienced a high-profile crisis event would provide stronger statistical insights on the relevant dimensions and variables that impact crisis outcomes and overcome the statistical limitations imposed on small samples. A greater sample would allow the examination of the data, including other moderator variables like “types of crises” and “types of industries”. This study could not capture enough quantitative information to draw meaningful statistical results through these types of moderator variables.

Information coming from 100 organisations from crisis prone industries that have not experienced a high-profile crisis event could serve as a control group to
determine the variables that may have contributed the most to avert a crisis event and to cross-reference the findings with those organisations that have experienced a high-profile crisis event.

Although this study captured information on the type of crisis responses to the crisis for descriptive purposes only, we firmly believe that a great deal of variance of the crisis outcomes could be explained by the type of organisational crisis responses used by the organisations to manage a crisis.

It would also be desirable to carry out a number of longitudinal comparisons (analysis of crisis preparedness before and after a crisis event) as our data is based on a cross-sectional study and therefore has some limitations in identifying the timing and extent of the implementation of crisis preparedness variables before the crisis. For instance, it would be interesting to know whether the resignation of the CEO took place before the resignation of a board member and/or whether the implementation of substantial policy and organisational changes, implemented as a consequence of the crisis, improved the crisis preparedness of the organisation. It would also be interesting to know the timing of the engagement of external consultants and whether this timing has an effect on the crisis outcomes.

Additional research on crisis preparedness should include data from countries beyond Australia and New Zealand in order to compare results internationally and to validate, or not, the findings of this research beyond the geographical scope of this study.

A final limitation is that the results presented here are drawn from multiple industries made of a combination of government and private organisations. Generalising the results to any particular industry and/or beyond the Australian and the New Zealand context should be done with caution.

8.4.2 Future Research

The relationship between crisis preparedness and crisis outcomes has been a topic highly ignored by the crisis literature. This topic is, from our point of view, one of the most important for the development of this field in the next decade. Without a clear reference to the outcomes of a crisis, it is difficult, if not impossible, to get an objective
evaluation on whether the crisis was effectively managed, whether we could avert or minimise its most negative outcomes and whether the allocation of financial and non-financial resources to prepare and manage the event were wisely spent. For instance, without this empirical evidence it is very hard to get the members of the board or the CEO to embark on a pre-crisis training program that would be costly in terms of time and money and that may take them away from their day-to-day strategic responsibilities. More research has to be done.

Our HPCM model did not produce statistical evidence to explain the variance of tangible financial outcomes. Other independent variables have to be considered in our model, such as external advice and ethical versus non ethical crisis response strategies (described below).

It is important to explore the relationship between crisis preparedness and crises outcomes including the following moderators:

- Type of industry
- Type of crisis.

It is important to research the assessment and impact of the advice received (crisis management, legal, media) during a crisis event on the crisis outcomes. We suggest including external advice as an additional independent variable in our HPCM model. The following proposition is recommended for future research:

*The quality and timing of external advice (crisis management, legal, and media) has a strong influence on the minimisation of the negative crisis outcomes.*

A new version of the HPCM model could be completed by adding the type of crisis response as another dimension. For descriptive purposes only, we captured information in our survey on this dimension. We classified the type of response in ethical and non-ethical responses. The following propositions are recommended for future research:
The ethical crisis responses have a strong influence on the minimisation of negative crisis outcomes.

The non-ethical crisis responses have a strong influence on the minimisation of negative crisis outcomes.

The type of media coverage also warrants further research, using the media coverage as a crisis outcome (dependent variable). This study will cast light onto the debate on how crisis preparedness can influence the media coverage of a crisis event or at least moderator the “hostile media effect”.

Further international research is needed under the same methodological framework used by this research (from US and European organisations) to validate/limit the geographical scope of these research findings and to establish a truly international practices benchmarking index in relation to crisis preparedness and crisis outcomes.
Chapter 9

Reflection

The sensitivities of researching high profile crisis management added a level of complexity to the already daunting task of researching any field of knowledge. High-profile crises generally affect organisations in a number of negative ways. These crises result, usually, in the loss of revenue and profits, legal battles and potential criminal charges, but most importantly, these crises affect real people, damage their reputation and credibility, hurt staff morale and productivity. The stakes are high. As such, collecting information on this topic was not an easy task. Getting the interviewees for our qualitative studies required time and patience. We had to develop a network of informal contacts that allowed us to approach our interviewees within a more informal setting. We were careful to pay attention to individual (and proper) concerns and sensitivities on this issue. We were successful in getting the stories of 5 key people from 5 high profile crises. All the people interviewed had, with no doubt, a first-hand knowledge of all the activities taken by their respective organisations to manage and control their respective crises. We tried to do our best to convey our interviewee’s point of view and interpretation of the crisis, as faithfully as possible, while protecting their identities. In fact, we decided to drop one of our case studies (National Australian Bank-foreign exchange crisis) because we could not tape the interview and we were not comfortable enough, to reproduce the interviewee comments faithfully, without risking the discovery of his/her identity.

The quantitative collection of 75 (out of 140 potential crises) was also a challenging task. We could not have achieved it without the support from the Public Relations Institute of Australia and the Public Relations Institute of New Zealand. It was painful having to eliminate 25 surveys because we encountered a number of problems with the quality of the information provided. Overall, and despite many moments of despair, our attempts to find information were mostly successful. We are looking forward to continue researching this fascinating topic.
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Attributed


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AAP, 7/4/1999. VIC: Esso failed to learn from previous disasters.


AAP, 1/9/1999. VIC: Class action against Esso blows out to $1.35 billion.

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Australian Vice-Chancellor’s Committee (AVCC): [http://www.avcc.edu.au/](http://www.avcc.edu.au/)

Commonwealth Scientific and Industrial Research Organisation (CSIRO):


Deloitte: [http://www.deloitte.com/dtt/home/0%2C1044%2Csid%25253D5518%2C00.html](http://www.deloitte.com/dtt/home/0%2C1044%2Csid%25253D5518%2C00.html)


Exxon Mobile:


Holistic Health Topics (HHT): [webmaster@holistichealthtopics.com](mailto:webmaster@holistichealthtopics.com)

Institute for Crisis Management (ICM): http://www.crisisexperts.com/pub.htm
The Plastics and Chemicals Industries Association (PACIA): http://www.pacia.org.au
Royal Melbourne Institute of Technology (RMIT): http://www.rmit.edu.au/
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Endnotes

a. The USA Institute for Crisis Management categorises these types of crises as “smoldering crises”.

b. We defined “Public” along with Dewey (1927), Blumer (1966), Gruning and Hunt (1984) as “… a group of people who face a common issue”.

c. We defined “perception” as: “the process of selecting, organising and interpreting information gained through the senses”.

d. We defined “corporate social performance” using the definition of Wood (1991) as a “… business organisation’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships”. “Corporate Social Performance Revisited.” The Academy of Management Review 16(4), 691-718.

e. Both Augustine and Fearn-Banks cited Steven Fink’s questionnaire, in negative overtones, that 50 per cent of the 405 respondents from the Fortune 500 CEOs declared that they did not have a plan for dealing with crises, but nevertheless, 97 per cent felt confident that they would respond well if a crisis occurred.

f. PeopleSoft is the registered trademark of PeopleSoft Inc. USA, developers of the PeopleSoft software for the HRMS and Student Administration systems.

g. The PPC was set up by the Government to analyse the causes of the crisis. The PPC was formed by independent members with the responsibility to advise the Government of the day. The committee interviewed members of the Ministry of Agriculture and Fisheries, the Department of Health, the New Zealand Fishing Industry Board and the New Zealand Fishing Industry Association.
Appendices