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ANIMAL SPIRITS, HUBRIS, NARCISSISM: BEHAVIOURAL DETERMINANTS OF MERGER AND ACQUISITION OUTCOMES

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Abstract

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This paper draws upon the animal spirit, hubris, and narcissism theories to conduct an empirical study investigating the behavioural determinants influencing mergers and acquisitions (M&A). While M&A transactions have shown a trend of value destruction for acquiring firm shareholders, they have simultaneously demonstrated value enhancement for shareholders of the acquired firms. The repercussions of this value erosion extend beyond shareholders, impacting pension funds, employees, customers, suppliers, government tax revenues, and banks within the economy. Utilising a long-event window methodology, the research examines cumulative abnormal returns (CARs) for acquirers' shareholders over a three-year post-completion period, focusing on Australian acquisitions from 1990 to 2006. The findings highlight animal spirit, hubris, and narcissism as significant behavioural determinants shaping M&A outcomes, thereby contributing to the ongoing discourse on hubris and hubris syndrome in M&A, with a suggestion that narcissism may be more prevalent than hubris. Additionally, the study identifies the joint tenure period of the Chairman and Chief Executive Officer (CEO) in the acquiring firm as a statistically significant factor contributing to acquiring firm shareholder value in M&A activities. Notably, a significantly negative correlation between CEO remuneration change and M&A outcomes is found. The paper recommends enhanced transparency for remuneration and nominations committees to address corporate governance issues raised by the study.

Keywords: Mergers and Acquisitions, Top Management Leadership, Leadership Behaviour, Animal Spirit, Hubris, Narcissism, Organisation Performance

Authors' individual contribution: Conceptualization — N.G.; Resources — N.G. and I.F.A.; Writing — N.G. and I.F.A.; Supervision — N.G. and I.F.A.; Funding Acquisition — N.G.

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1. INTRODUCTION

“Charisma, charm, the ability to inspire, persuasiveness, breadth of vision, willingness to take risks, grandiose aspirations and bold self-confidence — these qualities are often associated

with successful leadership. Yet there is another side to this profile, for these very same qualities can be marked by impetuosity, a refusal to listen to or take advice and a particular form of incompetence when impulsivity, recklessness and frequent inattention to detail predominate. This can result in disastrous

leadership and cause damage on a large scale... A common thread tying these elements together is hubris, or exaggerated pride, overwhelming self-confidence and contempt for others" (Owen & Davidson, 2009, p. 1396).

This research originated from an exploration of mergers and acquisitions (M&A) literature, specifically focusing on two aspects: shareholder returns and hubris. The examination revealed a gap in the literature concerning the connection between the behavioural attributes of experience (tenure), motivation (agency issues), and self-belief (hubris, narcissism, or animal spirits) of the Chairperson and Chief Executive Officer (CEO) and the overall firm performance in M&A. This inquiry coincided with a period in Australia marked by close scrutiny of corporate governance practices, especially agency problems and CEO remuneration (Productivity Commission, 2009). M&A holds substantial significance in the Australian economy. From 2006 to 2010, completed M&A transactions in Australia averaged \$60 billion annually, contributing significantly to an economy with a gross domestic product (GDP) of approximately \$1.3 trillion at that time.

This study aimed to investigate novel factors influencing the outcomes of M&A endeavours, specifically focusing on the impact of the Chairperson and the CEO on shareholder results in the context of M&A activities in Australia, along with an examination of their exhibited behaviours. The Chairperson and the CEO are typically a firm's most senior non-executive director (Chairperson) and most senior executive director (CEO).

The Chairperson's role with the CEO is the link between the board and management. An effective Chairperson fosters a relationship based on trust and confidentiality; a good working relationship between the Chairperson and CEO is essential for the success of the board, which in turn affects company performance and returns to shareholders (Australian Institute of Company Directors [AICD], 2006; Garrow & Awolowo, 2022). Understanding the behavioural traits of the CEO could be important in determining the characteristics the Chairperson may require to optimise the leadership performance of the Chairperson and CEO as a partnership.

The roles of the Chairperson and CEO are complementary. The Australian Securities Exchange (ASX) Corporate Governance Council recommend that the Chairperson should be an independent director and that the same person should not perform the roles of Chairperson and CEO (Productivity Commission, 2009; Awolowo et al., 2018; Garrow & Awolowo, 2022); a similar recommendation emerged in the UK (Cadbury, 1992; Dedman, 2002). The Chairperson assumes leadership responsibilities for the board, ensuring the productive involvement of all directors and fostering positive and respectful relationships among directors as well as between the board and management. The board should mutually agree upon the allocation of duties between the Chairperson and the CEO (ASXCG Council, 2007).

The board, under the guidance of the Chairperson, is tasked with delineating an organisation's objectives and strategies, which encompasses approving and overseeing acquisitions and divestitures and appointing the CEO.

On the other hand, management, headed by the CEO, is responsible for determining the means to implement these strategies and accomplish the business goals (Productivity Commission, 2009; Garrow & Awolowo, 2022).

Hubris (Roll, 1986) is often cited in the M&A literature as an influence on managerial actions (Sharma & Ho, 2002; Garrow & Awolowo, 2022). Other research suggests that narcissism (Higgs, 2009; Cragun et al., 2019) or animal spirits (Akerlof & Shiller, 2009) may be more dominant as an influence on managerial behaviour than hubris. This paper synthesises the literature on these three influences and contributes to the debate.

Firth (1980) observed that the outcomes of mergers and takeovers align more with motivations centred on maximising management utility rather than maximising shareholder wealth. He explored this perspective within the framework of maximising management utility, proposing that managers tend to prioritise their self-interests once they have achieved a certain "satisfactory" level of profits.

These interests may not necessarily align with maximising shareholder wealth but could include factors such as job security, salary increments, and an increase in power and job satisfaction. Firth (1980) suggests that growth in size, facilitated by takeovers, is a practical and swift means for managers to fulfil these self-interests.

There is substantial literature which indicates that, on average, M&A are value-destroying for acquiring firm shareholders (Agrawal et al., 1992; Tuch & O'Sullivan, 2007; Martynova & Renneboog, 2011; Vagenas-Nanos, 2020; Garrow & Awolowo, 2022). The consequences of this value destruction can be far-reaching in an economy, affecting not only shareholders but also pension funds, employees, customers, suppliers, government tax revenue and banks.

Understanding the causes of M&A successes and failures is critical for incumbent and prospective stakeholders. Studies on top management teams (TMTs) indicate that fostering positive working relationships among senior managers, such as the Chairperson and CEO, contributes to improved team cohesiveness, communication, and overall firm performance (Iaquinto & Fredrickson, 1997; Carson et al., 2004; Chan et al., 2011; Aboramadan, 2020).

This study investigates the behavioural elements influencing M&A outcomes, specifically examining factors such as animal spirit, hubris, and narcissism.

The contribution of this paper lies in its comprehensive exploration of the behavioural determinants influencing M&A outcomes, with a specific focus on the roles and behaviours of the Chairperson and CEO. It contributes to the broader literature on top management teams. It emphasises the importance of positive working relationships among senior managers, specifically the Chairperson and CEO, in enhancing team cohesiveness, communication, and overall firm performance. Overall, this paper strives to advance our understanding of the complex interplay of behavioural factors in shaping the outcomes of M&A.

The paper is structured as follows. Section 1 introduces the topic. Section 2 encompasses the literature review, integrating the research

hypothesis. Section 3 details the research methodology. Section 4 presents the results. Section 5 explores the discussion of the results, and ultimately, Section 6 provides the paper's conclusion.

2. LITERATURE REVIEW

2.1. Animal spirits

Keynes (1936) introduced the concept of animal spirits to elucidate the motivators of human behaviour during the economic depression between the two World Wars. Quoting from his work, Keynes argued that:

"Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits - of a spontaneous urge to action rather than inaction and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities" (Keynes, 1936, p. 161).

Keynes posited that actions are not strictly driven by rational cost-benefit calculations. Instead, the decision-making process is frequently influenced by optimism or pessimism, characterised by the waxing or waning of animal spirits. This fluctuation in animal spirits can be viewed as varying degrees of confidence, a concept frequently discussed in relation to alternatives like hubris in scholarly discourse (Roll, 1986; Malmendier & Tate, 2008).

Keynes (1936) believed that animal spirits could play a positive and important role in influencing business activity: "If the animal spirits are dimmed, and the spontaneous optimism falters, leaving us to depend on nothing but a mathematical expectation, that enterprise will fade and die" (p. 162).

Keynes (1936) noted that when estimating the prospects of investment, "we must have regard to the nerves and hysteria... of those upon whose spontaneous activity it largely depends" (p. 162).

Keynes (1936) concluded that it is our "innate urge to the activity which makes the wheels go round... often falling back for our motive on whim or sentiment or chance" (p. 163). Keynes's view was that animal spirits are the main cause of fluctuations in the economy, a forerunner of behavioural economics (Akerlof & Shiller, 2009).

Akerlof and Shiller (2009) focussed on the concept of confidence as a key component of animal spirits beyond purely rational decision-making. When people are confident, they behave in a certain way, such as regularly buying a wide range of goods and services; when they lack confidence, changing sentiment will make them inclined to be more prudent and save, even though their economic circumstances have not changed. The change in behaviour to save became a prominent feature of the economic landscape in Australia during the Global Financial Crisis (Stevens, 2010).

Akerlof and Shiller (2009) explained animal spirits as "a restless and inconsistent element in the economy" (p. 38). This idea of a restless and inconsistent element in the economy may be applicable in the context of a firm and be linked to decisions regarding acquisitions. It suggests that variability in a firm's performance may provide a stimulus for a decision to pursue an acquisition.

Keynes (1936), in developing his antidote for the Great Depression, recognised the importance and "instability" of human nature and its influence on behaviour; human nature is neither rational nor analytic in its influence on behaviour. He explains animal spirits as a "spontaneous urge to action" linking the changes in the economic environment and outlook to individual investment decisions. Akerlof and Shiller (2009) also explain the volatility in, for example, stock prices as a function of both rational and irrational factors. Market conditions, such as a bull market, will produce different behaviours than a bear market. Ultimately, decisions occur at an individual level, for example, in an acquisition, and therefore, individual decisions matter.

2.2. Hubris

Hubris is often cited as an explanation for management behaviour in M&A (Sharma & Ho, 2002; Angwin et al., 2022). Hubris is reviewed in this section, followed by narcissism and hubris syndrome. The main distinction between hubris and animal spirits is that hubris and narcissism are personal characteristics, whereas animal spirits are market conditions.

In a corporate environment, the hubris hypothesis (Roll, 1986) suggests that overconfidence can result in valuation inaccuracies during M&A. To elaborate, CEOs exhibiting hubris, by overestimating their capabilities and the likelihood of synergies from M&A, are prone to placing bids exceeding the market price, ultimately leading to overpayment (Runesson & Samani, 2023).

In the context of acquisitions, the hubris hypothesis by Roll (1986) asserts that decision-makers in acquiring firms pay too much for their targets on average, based on the self-belief that they can value targets better than the market consensus. Roll (1986) proposed that if there are no gains in takeovers, hubris is necessary to explain why managers do not abandon these bids since reflection would suggest that such bids are likely to represent positive errors in valuation.

Roll's (1986) fundamental assumption in support of his hypothesis was that markets (financial, product and labour) are efficient and that if a rational bidder offers target shareholders more than the market price for their stock, then the market has incomplete information regarding the cash flow outlook of the bidder and the target and that the bidder has this information. Roll (1986) highlighted that one problem which may affect the interpretation of share price movements around the time of a bid is "contaminating information", this being information which may pertain to other aspects of the firm's performance but which, by becoming available to the market at the same time as an announcement about a bid, can confuse the real assessment of the impact of the bid announcement on share prices.

Sirower (1997) claimed it is impossible to test whether the hubris hypothesis — or the hypothesis that managers pursue their objectives — is the true explanation of M&A performance, consistent with agency theory. Tichy (2001) noted that theories around management self-interest could not easily be checked for their concordance with the driving motive of acquisitions, such as Roll's (1986) hubris theory.

Bruner (2004) raised concerns about the potential for ambiguity with the hubris hypothesis. Roll (1986) suggested that confidence is a manifestation of hubris, whereas Malmendier and Tate (2008) asserted that the agency theory better explains overconfidence. Malmendier and Tate (2008) found “unambiguously” that an important factor which enables CEOs to pursue acquisitions is that their firms have sufficient internally generated funds, a view consistent with Jensen’s (1986) free cash flow theory. They also proposed that overconfident managers overestimate their ability to create value.

Billett and Qian (2008) contended that hubris is more commonly observed in multiple acquirers rather than single acquirers. They introduced the concept of “self-attribution bias”, where managers tend to overemphasize their role in achieving positive outcomes. Their study distinguished between frequent and infrequent acquiring firms, defining frequent acquirers as those who have acquired at least two public companies within five years. They concluded that evidence supported the idea that acquirers with no history of acquisitions exhibit no signs of hubris. The researchers suggested that hubris linked to acquisition experience leads to a greater number of acquisitions and decisions regarding acquisitions are influenced by historical stock price performance (Billett & Qian, 2008).

2.3. Narcissism

Individuals with narcissistic traits often rise to positions of leadership (Aabo et al., 2021) which probably suggests why narcissism is particularly common among senior executives such as CEOs (Wang et al., 2023). As noted by Chatterjee and Hambrick (2007), a Chairperson or CEO may have narcissistic tendencies concerning M&A activity. Hubris is just one possible contributor to failed acquisitions; alternative explanations are narcissism and hubris syndrome. Narcissism has been explored within the context of leadership (Kets de Vries, 1993; Chatterjee & Hambrick, 2007; Higgs, 2009; Angwin et al., 2022; Wang et al., 2023; Higgs, 2009). Narcissism is defined as emotional self-investment. When normal, it leads to self-regard and mature aspirations. When pathological, it is accompanied by inordinate demands upon oneself, excessive dependence upon acclaim from others and deteriorated capacity for interpersonal relations. Narcissistic personality disorder can be defined as an exaggerated sense of self-importance, a tendency to overvalue one’s actual accomplishments, an exhibitionistic need for attention and admiration, and preoccupation with fantasies of success, wealth, power and esteem.

Chatterjee and Hambrick (2007) distinguished between hubris and narcissism. They defined hubris as a psychological state brought on by some combination of confidence-buying stimuli and one’s narcissistic tendencies. They asserted that narcissism is a more fundamental property. At the same time, hubris lacks key elements of a narcissistic personality, most notably a sense of entitlement, preoccupation with self and continuous need for affirmation and applause. Narcissism is a more ingrained trait than hubris, and a narcissistic

personality stirs hubris (Chatterjee & Hambrick, 2007). Chatterjee and Hambrick (2007) posit that acquisition activity is particularly suited to narcissists with their attention-seeking nature and engagement in bold attention-seeking activity.

The measures of narcissistic tendencies adopted by Chatterjee and Hambrick (2007) included an examination of the incidence of CEO photographs in annual reports, CEO prominence in company reports and a comparison of the CEO’s compensation (cash and non-cash) with the second-highest paid executive in their firm. Their study captured firms in the computer hardware and software markets in the USA between 1992 and 2004. They concluded that CEO narcissism is positively related to “strategic grandiosity”, as indicated by the number and size of acquisitions, and that these results supported the view that narcissism is a personality dimension rather than a pathological category. This means that narcissists are very confident about their abilities in task domains, to the point of being objectively overconfident, rating themselves very highly on competence and leadership (Chatterjee & Hambrick, 2007).

Chatterjee and Hambrick (2007) found that a firm’s performance (measured either by return on assets (ROA) or total shareholder returns (TSR)) was no better or worse than for a firm with a non-narcissistic CEO. However, they highlighted that this finding might be a function of the “dynamic” industry in which their analysis was based. They suggested that narcissism could harm firm performance in more stable industries which call for more consistent strategies and steady, continuous improvement. This finding implies that the characteristics required of a CEO may differ between industries and that appointing a CEO with the appropriate industry-specific, risk-based, behavioural traits will be of significance when examining large-scale investments such as a merger or acquisition.

Higgs (2009) identified four central themes from the literature on “bad” leadership, which he suggested arise from four positional powers:

- 1) Abuse of power, including for personal goals or gain.
- 2) Inflicting damage on others, such as bullying or coercion.
- 3) Over-exercise of control to satisfy personal needs, accompanied by an obsession for detail.
- 4) Rule-breaking to serve own purposes, such as corrupt, unethical or illegal behaviour.

Higgs argued that the consequences of “bad” leadership impact in the longer term through the debilitating effect on morale and motivation of subordinates and the reduced ability of people to work together productively in teams. He identified behavioural characteristics which may be observed in a Chairperson or CEO and related these to four distinct elements of the narcissistic trait which aid in understanding narcissism, mainly when there is evidence of an excess of the trait:

- 1) Exploitativeness/Entitlement: “I demand the respect due to me”.
- 2) Leadership/Authority: “I like to be the centre of attention”.
- 3) Superiority/Arrogance: “I am better than others”.

4) Self-absorption/Self-admiration: "I am pre-occupied with how extraordinary I am".

These narcissistic traits provide a wider range of observable characteristics than the hubris explanation for explaining the behaviour of a CEO or Chairperson in failed acquisitions. These provide a guide for observable behaviours which may be monitored in any performance review process established by a nominations committee for its Chairperson and CEO. It is proposed in this study that these behavioural influences of the Chairperson and CEO that may affect firm performance in M&A activity are capable of observation and therefore, correction. The eventual outcome should improve shareholder returns in future M&A activity.

The difficulties in researching this area of M&A study include the selection of a reliable measurement for narcissistic and hubris behaviour and obtaining the support of CEOs to facilitate the examination of such behaviour. The potential for narcissism or hubris by either the Chairperson or CEO highlights the importance of the role played by either the CEO or the Chairperson in the joint leadership combination of a Chairperson and CEO. The potential consequences of narcissism were reviewed by Higgs (2009), and this, in turn, indicated the importance of the countervailing influence of a Chairperson and CEO in their partnership. The period of joint tenure and the complementarity of the leadership styles of a Chairman and a CEO becomes even more important in this potentially narcissistic context.

The negative aspects of narcissism are reflected in organisational consequences (Higgs, 2009) such as the creation of a blame culture, unethical behaviour, abuse of power and often organisational collapse. Higgs (2009) commented on the potential for positive outcomes from narcissism, citing Finkelstein and Hambrick (1996) and Chatterjee and Hambrick (2007). Higgs (2009) concluded that, while not all "bad" leadership is caused by narcissism, narcissistic leadership is damaging to an organisation internally (e.g., culture), which ultimately leads to longer-term deterioration in organisational performance.

The value of the partnership of a Chairperson and CEO was further highlighted by Maccoby (2000). He drew on Freud's analysis of erotic, obsessive and narcissistic personality types. Erotic personality types are those for whom loving and being loved is most important, and they tend to make poor leaders (Maccoby, 2000). He claimed obsessives create and maintain order and make the most effective operational managers; they are self-reliant and conscientious. Narcissists are independent and not easily impressed; they are innovators, driven in business to gain power and glory, and they want to be admired.

Furthermore, Maccoby (2000) claimed that narcissists lack empathy and typically have few regrets; they direct rather than coach, and organisations led by narcissists are generally characterised by intense internal competition. In order to avoid the worst characteristics of narcissistic leadership, it is proposed that these leaders should find a colleague to work closely with, someone who is likely to be a "productive obsessive" in personality type, and someone who can get his leader or partner to accept new ideas. Examples,

where such working partnerships at the top of an organisation have occurred, include Microsoft (Bill Gates and Steve Ballmer) and Oracle (Larry Ellison and Ray Lane).

2.4. Hubris syndrome

Owen and Davidson (2009) considered hubris in medical terms. They asserted that extreme hubristic behaviour is a syndrome, constituting a cluster of features ("symptoms") evoked by a specific trigger (power) and usually remitting when power fades. "Hubris syndrome" is seen as an acquired condition and, therefore, different from most personality disorders, which are traditionally seen as persistent throughout adulthood (Owen & Davidson, 2009). Their key concept was that hubris syndrome is a disorder of the possession of power, particularly power which has been associated with overwhelming success, held for years and with minimal constraint on the leader. In the context of M&A activity, this form of "minimal constraint" on a CEO is consistent with weak corporate governance or an ineffective Chairperson in a firm.

In considering hubris syndrome as a potential personality disorder, Owen and Davidson (2009) posed a question as to whether it differs from a narcissistic personality disorder and concluded that some of the symptoms are identical and some are different. In politics, as well as in business, it is very difficult to undertake clinical tests on possible sufferers, mainly in light of their status and unwillingness to participate in the requisite manner. Some of the symptoms of hubris syndrome, which seem to be very similar to those of narcissism, were identified by Owen (2008) and summarised in Owen and Davidson (2009, p. 1398) as follows:

"(i) sees the world as a place for self-glorification through the use of power; (ii) has a tendency to take action primarily to enhance personal image; (iii) shows disproportionate concern for image and presentation; ... (vii) shows excessive self-confidence; ... (xii) resorts to restlessness, recklessness and impulsive actions...".

Consistent with the findings of Chatterjee and Hambrick (2007), Owen and Davison (2009) found that qualities such as charisma, charm, the ability to inspire, persuasiveness, breadth of vision, willingness to take risks, grandiose aspirations and bold self-confidence, are often associated with successful leadership. Yet these very same qualities can be marked by impetuosity, or a refusal to take advice. This can result in disastrous leadership and cause damage on a large scale (Owen & Davidson, 2009), such as with a merger or acquisition.

In summary, "animal spirits" refer to people's changing emotions, confidence, envy, hope, anxiety, excitement, and depression. A distinction between hubris and narcissism, for example, is that hubris and narcissism are developed personal characteristics. At the same time, animal spirits arise in the market, although the reaction to these market developments may vary from individual to individual. The importance of having complementary personality traits in the Chairperson and CEO is highlighted in this paper, taking account of their respective behavioural characteristics so that performance is optimised to the benefit of all stakeholders.

The focus of this study is on the influence of a Chairperson and a CEO on firm performance in M&A. This literature review suggests that narcissism and “hubris syndrome” may provide greater insight into some managerial behaviour than hubris itself, which is often cited as a cause of adverse M&A outcomes. This review also indicates that the different behavioural characteristics of a Chairperson and a CEO may be complementary in their ability to enhance their own and their firm’s performance.

Animal spirits, hubris or narcissism drive M&A behaviour and activity and contribute adversely to shareholder outcomes.

3. RESEARCH METHODOLOGY

This research applied a long-event window research methodology as outlined by Bruner (2004). It scrutinised the CARs, which represent the firm’s returns to shareholders through changes in its share price and dividends paid. These returns were adjusted by the average returns in the overall share market, as indicated by the ASX 200 Accumulation Index. The analysis extended over a three-year period following the completion date of the acquisition.

Alternative methods used by other studies include correlation and regression analysis (Wang et al., 2023), probability scaling and intervention method (Bhagat et al., 2005; Aktas et al., 2016).

The dataset for this study comprised 47 acquisitions conducted in Australia from 1990 up to the global financial crisis. Information on these acquisitions was sourced from the Thomson Reuters “Thomson One” database. Additional data were gathered from various outlets, including annual reports of the acquirer and the acquired firm, DataStream, Aspect Huntley, the Australian Financial Review, the Reserve Bank of Australia (RBA), and the ASX for the S&P/ASX 200 Accumulation Index.

Studies on M&A have predominantly employed one of two timeframes for their analysis:

1) Examination of announcement effect: This involves assessing the impact on both target and acquirer shares during the announcement period, constituting a short event window.

2) Analysis of longer-term performance: This approach evaluates the effect on the acquirer’s shares over a two to five-year period following the acquisition, representing a long-event window.

Sudarsanam (2010) observed that short-horizon event studies assume rapid stock price reactions, indicating informational efficiency. However, a growing body of literature suggests that stock prices may adjust slowly over more extended periods (typically three to five years), revealing potential market inefficiencies. Nevertheless, some financial research has proposed that returns during the announcement period may not entirely capture the wealth effect of an event (Gregory & McCorriston, 2005).

This study employed an extended three-year timeframe using a long-event window methodology. Specifically, three-year returns to acquiring firm shareholders were computed post-completion, and corresponding returns for the three years preceding the acquisition were also assessed. For acquired firm shareholders, returns were calculated from six months before completion up to the completion date.

The choice of a long-term horizon was made to allow sufficient time for the integration of the acquiring and target firms, enabling a comprehensive analysis of acquisition performance (Garrow & Awolowo, 2022). While long-term studies may be susceptible to external factors impacting acquiring firm performance, the relatively consistent size of acquisitions in this study helped mitigate the influence of extraneous variables on CARs for the acquiring firm post-acquisition.

The study design involved the regression of 21 independent variables and four dependent variables, aiming to examine joint tenure, agency factors, and animal spirits. The variables are presented in the Appendix, Table A.1.

The four dependent variables in this study are:

- *CARB*: CAR to the acquirer for the three years following completion.

- *CARA*: CAR to the acquirer for the three years following completion plus the year prior to completion.

- *TGTCAR*: Target firm CAR at completion from six months prior to completion adjusted by ASX Accumulation Index.

- *CONSIDPERACQ2*: Consideration paid by the acquirer as a percentage of the acquirer’s net assets in the year prior to completion.

4. RESULTS

The results of the analysis examining animal spirits as an explanation for M&A performance and outcome are presented in Table 1 and Table 2 reports the consideration paid by the acquirer as a proportion of the acquirers’ net assets in the year prior to the acquisition (*CONSIDPERACQ2*) as the dependent variable with five statistically significant independent variables. The significant dependent variables are the net assets of the target divided by the net assets of the acquirer during the year prior to the acquisition (*NATGTACQ*); the number of board directors in the acquiring firm (*BOARDDIRECT*); change in the target firm’s share price during the six months preceding the acquisition (*CUMTGTPRCHG*); acquirer media exposure for the acquirer’s CEO and Chairperson (*MEDIA*); and acquirer earnings per share (*EPS*).

Table 1. Analysis of consideration paid as a proportion of acquirer net assets

<i>Dependent variable: CONSIDPERACQ2</i>			
<i>Independent variable</i>	<i>Coefficient</i>	<i>T-statistic</i>	
Constant	133.538**	2.489	
<i>NATGTACQ</i>	126.094***	7.404	
<i>BOARDDIRECT</i>	-13.928***	-3.120	
<i>CUMTGTPRCHG</i>	-64.658**	-2.132	
<i>MEDIA</i>	0.088***	2.970	
<i>EPS</i>	0.540**	2.535	
R-squared	0.723	F-statistic	21.351
Adjusted R-squared	0.689	Prob (F-statistic)	0.000

Note: * Significant at 10%; ** Significant at 5%; *** Significant at 1%.

Removing two outliers from the 47-acquisition sample resulted in the equation presented in Table 2 for the remaining sample of 45 acquisitions. In this equation, two variables (CEO tenure, *CEOTENURE*, and CEO remuneration change, *REMCHG*) replaced media (*MEDIA*) and earnings per share (*EPS*) as significant at the 5% level.

The results in Table 2 indicate that CEO tenure becomes a statistically significant, negative

independent variable for consideration expressed as a proportion of the acquirer's net assets prior to completion. This implies that the shorter the time period that the acquirer's CEO has been in his/her position at the time of the acquisition, the larger will be the consideration paid as a proportion of net assets. Joint tenure, when it replaced CEO tenure (Table 1), was negatively significant at the 10% level.

Table 2. Analysis of consideration paid as a proportion of net assets (excluding 2 outliers)

<i>Dependent variable: CONSIDPERACQ2</i>			
<i>Independent variable</i>	<i>Coefficient</i>	<i>T-statistic</i>	
Constant	138.957**	2.560	
NATGTACQ	97.843***	4.761	
BOARDIRECT	-12.927***	-3.122	
CUMTGTPRCHG	-69.396**	-2.512	
CEOTENURE	-7.282***	-2.657	
REMCHG	0.599**	2.240	
R-squared	0.645	F-statistic	14.168
Adjusted R-squared	0.599	Prob (F-statistic)	0.000

Note: * Significant at 10%; ** Significant at 5%; *** Significant at 1%.

5. DISCUSSION

The key relationships arising from these results are as follows.

The most significant independent variable was the size of the target relative to the acquirer (NATGTACQ) based on both firms' net assets in the year prior to completion; they were positively correlated. The size of the target relative to the size of the acquirer would be expected to be a dominant factor in determining the consideration paid as a proportion of the acquirer's own net assets.

The total consideration paid (CONSIDPERACQ2) was negatively correlated with the number of board directors (BOARDIRECT). This indicates that the smaller the size of the board, the larger will be the consideration paid as a proportion of the acquirer's net assets. On average, the size of the board in this study was 8.47 with a standard deviation of 2.56; the median size was 8. This finding implies that the larger the size of the board, the more parsimonious they may be in terms of what they will pay in an acquisition.

An unexpected negative correlation was found between the acquired firm's share price change during the six months prior to completion (CUMTGTPRCHG) and the consideration paid as a proportion of the acquirer's net assets (CONSIDPERACQ2). The smaller the change in the target firm's share price (CUMTGTPRCHG) during the six months prior to completion, the larger the proportion that the consideration represents of the acquirers' net assets. The significance of this finding may be that the market for these shares is efficient and that the prevailing share price fully reflects the value of the firm to be acquired.

The measure adopted in this study for media exposure was positively correlated with total consideration paid. This correlation is consistent with previous work examining hubris (Hayward & Hambrick, 1997; Malmendier & Tate, 2008). Media exposure was measured using the Factiva database (<https://www.dowjones.com/professional/factiva/>, on August 25th, 2010) with the sum of the Chairperson and CEO mentions during the two-year period encompassing one year prior to completion and one year after completion; all media sources were used

in the data collection within the region Australia and New Zealand. The result indicates that the greater the media exposure of the Chairperson and CEO, then the greater will be the relative size of the consideration paid. This also provides support for narcissism and Higgs's (2009) evidence of it through self-admiration and entitlement.

CEO tenure was negatively correlated with the consideration, indicating that the shorter the CEO's tenure, the higher the consideration being paid as it relates to the acquirer's net assets. This supports animal spirits in that new CEOs are keen to increase their profile and achieve "quick wins" by growing the business through acquisition. This supports the argument by Lowenstein (2008) that "CEOs were, by natural Darwinian selection, excessively energetic sorts, seldom deficient in animal spirits. They measured themselves by the size of their castle, rather than by Buffett's yardstick of profitability (which to him was the only rational goal" (Lowenstein, 2008, p. 238).

The finding reveals the existence of animal spirits, with indications of Keynes's concept of a "spontaneous urge to action" (Keynes, 1936, p. 161) being evident in M&A. This implies that managerial responses to short-term shifts in market conditions may result from sentiments of optimism or pessimism, rather than stemming from rational analysis.

A measure of the "size of the castle" is the size of the consideration paid for the target firm. For successful acquirers in this study, the average size of the consideration paid was A\$1,282 million; this average included two large acquisitions (by consideration paid), which were CBA's acquisition of Colonial Bank and Toll's acquisition of Patrick. Excluding these two transactions, the average consideration paid for the remaining 17 positive CARB acquirers was A\$498.9 million. For the unsuccessful acquirers, the average consideration that they paid to the acquired firm's shareholders was A\$889.8 million; deducting the two largest acquisitions in this sample of acquirers reduced the average consideration for the remaining 26 acquirers to A\$744.6 million.

Comparing the successful acquirers with the unsuccessful acquirers, the consideration paid as a percentage of the acquirers' net assets in the year prior to the acquisition was 77.2% and 54.7%, respectively; deducting the two largest acquisitions from the successful acquirers' subsample reduced the average consideration to 29.4% of acquirers' net assets (from 77.2%) and for the unsuccessful acquirers, the average consideration reduced to 49% of acquirer's net assets (from 54.7%). The implication is those relatively small acquisitions prove to be more successful for acquirers than relatively large acquisitions, a finding shared by Rehm et al. (2012) from McKinsey & Company.

6. CONCLUSION

Navigating change is commonly a formidable and intricate process. M&A, being inherently challenging, represents significant tasks for all staff and often stands as the most substantial challenge managers encounter in their careers. Amid the expanding literature on change leadership, there is

a proposition that many change-related issues stem from leadership behaviour. Behaviours centred on the leader's position, role, and power, as well as their abilities, don't seem correlated with the success of a change intervention. In fact, such behaviours, as indicated by shaping behaviour factors, can hinder the success of an intervention, as evident from both qualitative data and partial correlations.

Animal spirit, hubris, and narcissism emerge as key behavioural drivers influencing outcomes in M&A. The behavioural impacts of the Chairperson and CEO on firm performance during M&A activities are observable and, therefore, correctable. Joint tenure of the Chairperson and CEO can also shape M&A outcomes, potentially mitigating the impact of individual leadership behaviours. A more extended period of working together, typically three years before any acquisition, tends to yield better outcomes.

While this research has contributed to the discourse on hubris and narcissism in

management, measuring these concepts remains challenging. Future research should elucidate the specific roles each plays in business activity and explore effective management strategies. Additionally, investigating the impact of joint tenure on overall firm performance beyond M&A activities warrants further exploration. This study focused on the Australian context, a relatively small M&A market; hence, expanding the research scope to larger markets such as the USA or UK would provide valuable insights. Acknowledging the limitations of the small sample size (47) in this study, a larger sample study would enhance the depth and breadth of the findings.

This paper did not incorporate the mining sector in its sample, despite its significance and expansion in Australia. While there are challenges in analysing accounting information from mining firms, the absence of comprehension regarding the efficacy of M&A activity in the Australian mining sector represents a notable gap in M&A.

REFERENCES

- Aabo, T., Als, M., Thomsen, L., & Wulff, J. N. (2021). Watch me go big: CEO narcissism and corporate acquisitions. *Review of Behavioral Finance*, 13(5), 465–485. <https://doi.org/10.1108/RBF-05-2020-0091>
- Aboramadan, M. (2020). Top management teams characteristics and firms performance: Literature review and avenues for future research. *International Journal of Organizational Analysis*, 29(3), 603–628. <https://doi.org/10.1108/IJOA-02-2020-2046>
- Agrawal, A., Jaffe, J. F., & Mandelker, G. N. (1992). The post-merger performance of acquiring firms: A re-examination of an anomaly. *The Journal of Finance*, 47(4), 1605–1621. <https://doi.org/10.1111/j.1540-6261.1992.tb04674.x>
- Australian Institute of Company Directors (AICD). (2006). *Chairman of the board, a role in the spotlight*.
- Akerlof, G. A., & Shiller, R. J. (2009). *Animal spirits. How human psychology drives the economy, and why it matters for global capitalism*. Princeton University Press. <https://doi.org/10.1515/9781400834723>
- Aktas, N., de Bodt, E., Bollaert, H., & Roll, R. (2016). CEO narcissism and the takeover process: From private initiation to deal completion. *Journal of Financial and Quantitative Analysis*, 51(1), 113–137. <https://doi.org/10.1017/S0022109016000065>
- Angwin, D. N., Urs, U., Appadu, N., Thanos, I. C., Vourloumis, S., & Kastanakis, M. N. (2022). Does merger & acquisition (M&A) strategy matter? A contingency perspective. *European Management Journal*, 40(6), 847–856. <https://doi.org/10.1016/j.emj.2022.09.004>
- ASX Corporate Governance Council. (2007). *Corporate governance principles and recommendations with 2010 amendments* (2nd ed.). <http://surl.li/rymr>
- Awolowo, I. F., Garrow, N., Clark, M. C., & Chan, D. (2018). Accounting scandals: Beyond corporate governance. In *9th Conference on Financial Markets and Corporate Governance (FMCG) 2018*. <https://doi.org/10.2139/ssrn.3101057>
- Bhagat, S., Dong, M., Hirshleifer, D., & Noah, R. (2005). Do tender offers create value? New methods and evidence. *Journal of Financial Economics*, 76(1), 3–60. <https://doi.org/10.1016/j.jfineco.2004.05.002>
- Billett, M. T., & Qian, Y. (2008). Are overconfident CEOs born or made? Evidence of self-attribution bias from frequent acquirers. *Management Science*, 54(6), 1037–1051. <https://doi.org/10.1287/mnsc.1070.0830>
- Bruner, R. F. (2004). *Applied mergers & acquisitions* (1st ed.). Wiley.
- Cadbury, S. A. (1992). Highlights of the proposals of the committee on financial aspects of corporate governance. In D. D. Prentice & P. R. J. Holland (Eds.), *Contemporary issues in corporate governance* (pp. 45–55). Oxford University Press. <https://doi.org/10.1093/oso/9780198258599.003.0003>
- Carson, C. M., Mosley, D. C., & Boyar, S. L. (2004). Performance gains through diverse top management teams. *Team Performance Management*, 10(5/6), 121–126. <https://doi.org/10.1108/13527590410556845>
- Chan, R. Y. K., Cheng, L. T. W., & Leung, T. Y. (2011). Corporate performance implications of related demographic differences: On age and titles of chairpersons versus general managers of listed Chinese companies. *British Journal of Management*, 22(1), 96–113. <https://doi.org/10.1111/j.1467-8551.2010.00710.x>
- Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effect on company strategy and performance. *Administrative Science Quarterly*, 52(3), 351–386. <https://doi.org/10.2189/asqu.52.3.351>
- Cragun, O. R., Olsen, K. J., & Wright, P. M. (2019). Making CEO narcissism research great: A review and meta-analysis of CEO narcissism. *Journal of Management*, 46(6), 908–936. <https://doi.org/10.1177/0149206319892678>
- Dedman, E. (2002). The Cadbury committee recommendations on corporate governance — A review of compliance and performance impacts. *International Journal of Management Reviews*, 4(4), 335–352. <https://doi.org/10.1111/1468-2370.00091>
- Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organization*. West Publishing.
- Firth, M. (1980). Takeovers, shareholder returns and the theory of the firm. *The Quarterly Journal of Economics*, 94(2), 235–260. <https://doi.org/10.2307/1884539>

- Garrow, N., & Awolowo, I. F. (2022). Mergers and acquisitions and the CEO: Tenure and outcomes. *Corporate Board: Role, Duties and Composition*, 18(1), 47–61. <https://doi.org/10.22495/cbv18i1art4>
- Gregory, A. (1997). An examination of the long-run performance of UK acquiring firms. *Journal of Business Finance and Accounting*, 24(7–8), 971–1002. <https://doi.org/10.1111/1468-5957.00146>
- Gregory, A., & McCorriston, S. (2005). Foreign acquisitions by UK limited companies: Short and long-run performance. *Journal of Empirical Finance*, 12(1), 99–125. <https://doi.org/10.1016/j.jempfin.2003.10.003>
- Hayward, M. L. A., & Hambrick, D. C. (1997). Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42(1), 103–127. <https://doi.org/10.2307/2393810>
- Higgs, M. (2009). The good, the bad, and the ugly: Leadership and narcissism. *Journal of Change Management*, 9(2), 165–178. <https://doi.org/10.1080/14697010902879111>
- Iaquinto, A. L., & Fredrickson, J. W. (1997). Top management team agreement about the strategic decision process: A test of some of its determinants and consequences. *Strategic Management Journal*, 18(1), 63–75. [https://doi.org/10.1002/\(SICI\)1097-0266\(199701\)18:1<63::AID-SMJ835>3.0.CO;2-N](https://doi.org/10.1002/(SICI)1097-0266(199701)18:1<63::AID-SMJ835>3.0.CO;2-N)
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76(2), 323–329. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=99580
- Kets de Vries, M. F. R. (1993). *Leaders, fools, and imposters: Essays on the psychology of leadership* (1st ed.). Jossey-Bass.
- Keynes, J. M. (1936). *The general theory of employment, interest, and money*. Macmillan Cambridge University Press.
- Lowenstein, R. (2008). *Buffett: The making of an American capitalist*. Scribe Publications.
- Maccoby, M. (2000). Narcissistic leaders: The incredible pros, the inevitable cons. *Harvard Business Review*, 78(1), 68–78. <https://hbr.org/2004/01/narcissistic-leaders-the-incredible-pros-the-inevitable-cons>
- Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*, 89(1), 20–43. <https://doi.org/10.1016/j.jfineco.2007.07.002>
- Martynova, M., & Renneboog, L. (2011). The performance of the European market for corporate control: Evidence from the fifth takeover wave. *European Financial Management*, 17(2), 208–259. <https://doi.org/10.1111/j.1468-036X.2009.00497.x>
- Owen, D. (2008). *In sickness and in power* (1st ed.). Praeger.
- Owen, D., & Davidson, J. (2009). Hubris syndrome: An acquired personality disorder? A study of US presidents and UK prime ministers over the last 100 years. *Brain*, 132(5), 1396–1406. <https://doi.org/10.1093/brain/awp008>
- Productivity Commission. (2009). *Executive remuneration in Australia* (Productivity Commission Inquiry Report No. 49). Commonwealth of Australia. <https://www.pc.gov.au/inquiries/completed/executive-remuneration/report/executive-remuneration-report.pdf>
- Rehm, W., Uhlaner, R., & West, A. (2012). *Taking a longer-term look at M&A value creation*. McKinsey & Company. <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/taking-a-longer-term-look-at-m-and-a-value-creation>
- Roll, R. (1986). The hubris hypothesis of corporate takeovers. *The Journal of Business*, 59(2), 197–216. <https://doi.org/10.1086/296325>
- Runesson, E., & Samani, N. (2023). Goodwill or “No-will”: Hubris in the tone at the top. *Journal of Contemporary Accounting & Economics*, 19(1), Article 100331. <https://doi.org/10.1016/j.jcae.2022.100331>
- Sharma, D. S., & Ho, J. (2002). The impact of acquisition on operating performance: Some Australian evidence. *Journal of Business Finance & Accounting*, 29(1–2), 155–200. <https://doi.org/10.1111/1468-5957.00428>
- Sirower, M. L. (1997). *The synergy trap: How companies lose the acquisition game*. Simon and Schuster.
- Stevens, G. R. (2010). The challenge of prosperity. *Reserve Bank of Australia Bulletin*, 69–75. <https://www.rba.gov.au/publications/bulletin/2010/dec/pdf/bu-1210-9.pdf>
- Sudarsanam, S. (2010). *Creating value from mergers and acquisitions: The challenges* (2nd ed.). Pearson Education Canada.
- Tichy, G. (2001). What do we know about success and failure of mergers? *Journal of Industry, Competition and Trade*, 1, 347–394. <https://doi.org/10.1023/A:1019521325295>
- Tuch, C., & O'Sullivan, N. (2007). The impact of acquisitions on firm performance: A review of the evidence. *International Journal of Management Reviews*, 9(2), 141–170. <https://doi.org/10.1111/j.1468-2370.2007.00206.x>
- Vagenas-Nanos, E. (2020). The benefits of overvaluation: Evidence from mergers and acquisitions. *Financial Management*, 49(1), 91–133. <https://doi.org/10.1111/fima.12247>
- Wang, L., Li, H., & Mu, Y. (2023). Research on CEO narcissism and mergers and acquisitions of listed companies. *Current Psychology*, 43, 3328–3340. <https://doi.org/10.1007/s12144-023-04605-1>
- Zhao, H. (2022). Management team cultural alignment and mergers and acquisitions. *Finance Research Letters*, 46(Part B), Article 102448. <https://doi.org/10.1016/j.frl.2021.102448>

APPENDIX

Table A.1. Dependent and independent variables examined

1	<i>CARGAVE</i> : The annual average CAR for the acquirer during the period three years prior and two years prior to completion. Examining the acquirers' performance two to three years prior to the acquisition.
2	<i>CARCCARGAVE</i> : CAR for the acquirer in the year prior to completion minus the average CAR during years 2 and 3 prior to completion. This was a measure of animal spirits reflecting the extent to which CARs during the year prior to completion are better or worse than the average CAR during the preceding two years. Economic conditions prevailing during the immediate (12-month) period prior to an acquisition may have a significant influence on some managers' judgement giving rise to excessive optimism. This concept of animal spirits is recognised in the economics literature (Keynes, 1936, Akerlof & Shiller, 2009).
3	<i>CARTOTOD</i> : Cumulative returns from the ASX Accumulation Index for the period up to three years prior to completion. This was one of several measures of ASX market performance used in the study to examine the effect of overall market performance on acquirer outcomes.
4	<i>CARD Toto Average</i> : Cumulative returns from the ASX Accumulation Index for the period up to three years prior to completion expressed as a per-year average across that three-year period. An annual measure of average overall ASX market performance.
5	<i>CARC Toto</i> : Cumulative returns from the ASX Accumulation Index for the period one year prior to completion. This was also one of several measures of ASX market performance used in the study to examine the effect of market influences on outcomes, this time during the year prior to the acquisition.
6	<i>JTENURE</i> : Period of joint tenure for Chairman and CEO at the time of completion of acquiring firm. This was the period of time during which the Chairman and CEO have been in their respective roles together. The source of this data was the annual report of the acquirer.
7	<i>CEOTENURE</i> : A period of tenure for the CEO at completion time for the acquiring firm. The period of time that the acquiring firm CEO has been in that role prior to the date of completion of the acquisition.
8	<i>CONSIDERATION</i> : Amount paid by the acquirer for the target firm, expressed in A\$ millions. This was the consideration paid by the acquirer for the acquired firm as stated in the acquirer's annual report.
9	<i>MEDIA</i> : Media exposure is measured using the Factiva database (https://www.dowjones.com/professional/factiva/ , on August 25th, 2010) with the sum of the Chairman and CEO mentions in the media during the period one year prior to completion to the period one year after completion; all media sources used in the data collection are within the region Australia and New Zealand. This variable was used as a possible measure of hubris similar to Hayward and Hambrick (1997).
10	<i>REMCHG</i> : Change in acquiring firm CEO's remuneration in a year of completion compared with the prior year. The data for CEO remuneration was taken from the acquiring firm's annual reports. During the early years of the period of this study, directors' remuneration was often presented in the notes to the accounts and stated within a narrow band, for example, 1,400,001–1,410,000, in which case the mid-point of this band was taken as the CEO's remuneration for that period.
11	<i>TGTCAR</i> : Target firm CAR at completion from six months prior to Completion adjusted by ASX Accumulation Index. This was a measure of the return to the acquired firm shareholders by examining the CAR during the six months up until completion. Six months was used across all acquired firms with the objective of starting the analysis prior to an acquisition being announced.
12	<i>NATGTACQ</i> : Net assets target divided by net assets Y_{t-1} (for acquirer), as defined above. This was the comparative measure adopted for the size of the target as a proportion of the size of the acquirer in order to examine if the relative size was a significant factor in determining the outcome of an acquisition, particularly when compared with the size of the acquirer. Tuch and O'Sullivan (2007) cited studies which observe that relative size can have an influence on M&A outcomes; this study also seeks to identify any statistically significant correlation with M&A outcomes.
13	<i>EPS</i> : Earnings per share, in cents. The EPS was for the acquiring firm in the year of the acquisition completion.
14	<i>CARB1</i> : CAR for the acquirer during the first year following completion. This study examined acquirer abnormal returns during each of the three years following the acquisition, as well as across the three periods following the acquisition, in order to identify any correlations or patterns in acquirer performance between successful and unsuccessful acquirers.
15	<i>CARB2</i> : CAR for the acquirer during the second year following completion.
16	<i>CARB3</i> : CAR for the acquirer during the third year following completion.
17	<i>CARC</i> : CAR for the acquirer during the year before completion for an acquirer. This variable may be a factor in examining animal spirits, as well as enabling a comparison to be made of the acquirer's performance, during the period prior to an acquisition, with previous M&A studies for consistency.
18	<i>CARD</i> : CARs for the period up to three years prior to completion for an acquirer.
19	<i>Completion date</i> : Month and year of acquisition completion.
20	<i>Linear B</i> : 1-0 coding with 1 = Positive <i>CARB</i> and 0 = negative <i>CARB</i> outcome for the acquirer.