

WHITE PAPER

M&A OUTCOMES CAN BE PREDICTED AND IMPROVED USING BEHAVIORAL STRATEGY

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Executive Summary

There is a **Critical Need** for M&A Outcomes to be **Predicted and Improved**

Traditionally M&A outcomes have been terrible and so has the record of predicting them. "Insanity is doing the same thing over and over again and expecting different results."





Traditional M&A Analysis Ignores Non-Rational Behavior

Behavioral disciplines address non-rational behaviors but **Still** can't predict merger outcomes.

New Form of Behavioral Analysis Allows Prediction of M&A Outcomes



The fundamental principle is that all cognitive biases have financial consequences. The model shows how behaviors impact both business operating outcomes and financial and valuation outcomes.

Behavioral Alignment is Critical to Merger Outcome

Financial culture drives valuation outcome. Financial styles must be identified and understood for a successful merger.





We Can Use This to Improve M&A Success Rates

The method can be used to construct a new behavioral proforma. We can architect the behavioral inventory of the managers of the two parties so that they match the target valuation of the combined entity.

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M&A OUTCOMES CAN BE PREDICTED AND IMPROVED USING BEHAVIORAL STRATEGY

There is a Critical Need for M&A Outcomes to be Predicted and Improved

Historically M&A Outcomes Have Been Terrible

There has been a huge amount of research on the performance and outcomes of mergers. But the research is generally in agreement on one major thing. That is that most mergers lead to less revenue growth than would otherwise have occurred in the absence of a merger. There has been no change in this conclusion over time. McKinsey could conclude in 2001 that "Measured against industry peers, only 36 percent of the targets maintained their revenue growth in the first quarter after the merger



announcement. By the third quarter, only 11 percent had avoided a slowdown; the median lag was 12 percent." ¹

According to a study by the Federal Trade commission in 2003, "...mergers succeed less than half the time..." For a majority of cases revenue declined for both merger partners. Nor is revenue growth the only criterion on which most mergers fail. Other indices which also fair poorly include shareholder value relative to overall stock market performance and industry average returns, amongst many others.²

Nor does experience in M&A help improve outcomes and success. McKinsey's 2011 study on this

issue found that "Patterns of deal size and frequency have made little difference in performance as measured by excess total returns to shareholders (TRS) among the world's top 1,000 companies by market capitalization..... From a value-creation perspective, this finding means that the size and number of deals matter less than the discipline with which they are

"....most mergers lead to less revenue growth than would otherwise have occurred...."

identified, priced, integrated, and managed "³ In other words, the data don't show any clear trend as to what causes mergers to succeed or fail. The most that even McKinsey can come up with is "discipline" to explain the variance in results.

So what is the reason for such poor outcomes? The consensus of analysts has slowly been moving to "soft" factors, mainly to cultural and organizational factors including leadership. In a 2010 study, McKinsey found that 92% of managers involved in mergers felt that there was insufficient attention paid to cultural factors. Around half of those surveyed felt that the problem was equally divided between these cultural and leadership factors.⁴

What do we mean by culture? In these surveys this was never defined, so the responses may just be picking up something that no-one really understands at a formal level. McKinsey has tried to quantify this through its own techniques (using its Organizational Health Index).⁵ But the problem with its approach is that the OHI and the analysis cannot be used to make precise predictions of financial and valuation performance, and in fact even the qualitative predictions are at best impressionistic.

The same is true of other cultural approaches to M&A of which there are numerous. None of these has been able to develop a framework that ties cultural factors directly, formally and quantitatively to what matters most to corporate leaders involved in crafting M&A transactions. That is, the metrics that matter are those that will predict the outcomes of the transaction in terms of future revenues, shareholder value and stock price. The state of the art in M&A analysis using cultural approaches is therefore unable to solve the problem of predicting merger outcomes and

is no better than traditional financial approaches, which, as we have seen, are similarly unsuccessful.

So despite the continuing existence of a global M&A industry that occupies an enormous amount of time and effort of corporate managers, financial analysts, investment analysis and professional advisers, we are no nearer than we were maybe a century ago at being able to predict merger outcomes from a financial and valuation viewpoint. Most mergers are doomed to do relatively badly, no matter the many brilliant minds that have been occupied with this field in investment banks, universities and corporations globally.

"....suboptimal M&A outcomes.....mean that the wider economy is also not working as it was designed to...."

These still use the same methods of analysis as have always been used to identify targets, conduct due diligence and to conduct integration programs. It is well-known that these will work no better than a random choice of any such approaches,

but since there is nothing better to take their place, we are doomed to continue using them.

As the old saying has it: "Insanity is doing the same thing over and over again and expecting different results."

Ineffective Mergers Reduce Returns to Shareholders and Economies

M&A occupies a critical position in modern economies, It allows companies to be bought and sold in order to improve their value to shareholders. In so doing it offers the potential for companies to expand their product lines. Increase their target markets and become more efficient. For companies that are struggling, it can offer a way out. It allows companies to be merged so as to maximize their joint technologies and processes.

M&A outcomes are general way less successful than their architects intended. This not just a failure at the level of the two companies involved. It also represents a failure of the economic system to work as it should. The sub-optimal outcomes of so many M&A deals, let alone their failure, represents a wider failure for the whole economy of which they form a part. If most M&A transactions are not working the way we want them, then it means that the wider economy is also not working as it was designed to.

M&A analysis has been based on the foundation of traditional economics and finance. But we can see that this foundation is failing insofar as it cannot predict the outcome of most mergers so it is not possible to know what to do to improve them. We need to understand why this foundation is failing us if we want to improve merger outcomes as our way to improve shareholder outcomes and outcomes for the broader economy. Once we understand why the system is failing, we need to use this knowledge to re-engineer mergers based on a new foundation which can reliably improve merger outcomes and thus shareholder and broader economic value.

The aim of this White Paper is to show that this can be achieved. It takes as its basis the foundation being established by the new disciplines of behavioral economics and behavioral finance and the research that the Perth Leadership Institute has been conducting in this area. The White Paper shows that we can build a new foundation for merger analysis and prediction which can yield quantitative forecasts of outcomes and provide an objective framework for improving the outcomes of future mergers.

Traditional M&A Analysis Ignores Non-Rational Behavior



M&A analysis is built on a foundation of classical economics and finance. Classical economics has a history dating back to the 19th century. The classical economists ranging from Adam Smith to Keynes built formal models based on a very particular psychological platform. That platform assumed that individuals and corporations are rational economic actors. This allows a sophisticated structure of models to be built. Those models include merger analysis.

Economists have always known and accepted that these theories are an approximation to the real world. The models work fairly well at the macro-economic level when conditions do not change much. However it has become increasingly clear that the classical economic models do not work at all in the following macro-economic cases:

- When global or national conditions change significantly
- In predicting macroeconomic inflection points and crises

At the micro-economic level the models don't work well or at all in the following situations:

- In predicting the valuation impacts of major changes in corporate management
- In predicting the impact of technology changes
- In predicting the outcome of mergers

M&A analysis assumes that when two companies come together they will act in the way that the financial models predict. That means that their revenues are added and their combined costs are cut. In this way proformas can be built based on an analysis of how rational actors would act in merging the two firms.

But what if the two sets of people in the two different companies do not act as rational analysis would suggest? What if they have behaviors that change when confronted with different corporate circumstances? What if the employees selected by their original company for particular behaviors that bring about certain results won't be applicable, relevant or useful in the new corporate environment? Classical economics has nothing to say about these issues.

Irrationality is now being addressed through New Behavioral Disciplines

Irrationality implies that we have biases about which we are unconscious and unaware. We have always known that leaders and management decision-makers have biases. The trouble is that they are difficult to model in particular situations. We may know that a manager tends to under-spend or overspend, but predicting that in advance for a particular leader or company is difficult and requires models that have only recently commenced development.



We also know that there are numerous other types of biases that affect decision-making. However these had never been catalogued or their effects formally described. So although theorists knew that rationality was not really realistic, a formal platform had never been developed to model those biases.

The issue has been how to link irrationality – or to be more accurate, mixed rationality - in decision-making with economic and financial outcomes. The first steps in this process have been made with the emergence of the new disciplines of behavioral economics and finance. These disciplines formally relax or drop the assumption of rationality in building models of economics

and financial phenomena. For the first time we now have a language and models that link financial outcomes to real-decision-making in the real world.

This allows us for the first time to formally link decision-making that is not necessarily rational to financial and business outcomes. Since this is what leaders do, we now have for the first time a

"....But what if the two sets of people in the two different companies do not act as rational analysis would suggest?..."

framework that can be used to describe managerial behaviors and outcomes, in business and financial terms.

The big issue is how can we apply these approaches specifically to M&A analysis? How can we model the impact of non-rational cognitive biases at the individual, team and company level in a situation where there are at least two corporate entities involved and where the behaviors are very different at many or all levels of the organization?

But Behavioral Economics & Finance Still Unable to Predict Merger Outcomes

Behavioral Approaches Haven't Caught on Yet in M&A: The field of behavioral economics and finance can be said to have received formal recognition of their intellectual coming-of-age with the award of the 2002 Nobel Prize for economics to Daniel Kahnemann of Princeton University for his work into behavioral economics. But this work has still not permeated M&A analysis or been used to help change its poor record of prediction.

Recently McKinsey Quarterly carried an article on this subject. They cite some of the problems that are caused by the lack of understanding of behavioral strategy. These particularly include failed mergers and acquisitions.

This research concludes that, contrary to what one might expect "good analysis in the hands of managers won't naturally yield good decisions..."

"....cognitive biases affect the smartest executives in the most important strategic decisions in the best companies...."

McKinsey

This of course flies in the face of conventional approaches that assume if we are smart, reasonably educated and have the right data, we will have a very good chance of making a good decision that will have a beneficial outcome. It explains why, to the contrary, so many decisions at all levels of management, informed by the best analysis possible, so often yield poor outcomes. It explains particularly well why most merger transitions don't work well and why we are so bad at predicting M&A outcomes.

For M&A this has critical implications. It suggests that most leaders are unaware of their biases and therefore are not in a position to compensate for them. In M&A, those who participate in these processes cannot identify these biases and predict their impact on the outcome of an M&A transaction.

Some Key Issues Not Yet Addressed: The new behavioral models open up new approaches in the areas of decision-making, M&A, and leadership development. They suggest that too much information can be as dangerous as too little. They provide new concepts for improving decisions and to optimize their outcomes in business terms.

But as with any new discipline, they still leave major problems unaddressed. These include:



The Problem of Individual Prediction: The behavioral disciplines have identified a rich catalog of cognitive biases and described their effects. Although these effects work at the level of the individual, we can only use them predictively at the level of the large group. The new behavioral disciplines provide no model that allows us to predict how these cognitive biases will act in the case of a specific individual, a specific team or a specific company.

We term this problem, the "atomism" problem. The current behavioral disciplines can predict only at the level of an organization **in general**, or of a country **in general**, or a large group of consumers **in general**. But they cannot make predictions at the level of the **specific** individual, the **specific** consumer, the **specific** manager, the **specific** team in a **specific** company. This means we cannot apply current behavioral finance models to M&A because they lack the predictive power at the level of the specific leadership team and company.

Predicting Precise Business Outcomes: Even more importantly these emerging disciplines do not show the actual financial outcome of these cognitive biases for any individual, team or company on business outcomes such as **profitability or valuation**. Yet it is precisely these issues that are of most interest and utility to shareholders, investors and economists in the case of specific M&A transactions.

We term this problem the "outcome" problem. We need to be able to do more than just say that a particular cognitive bias will distort the outcome of a decision. We need to be able to say how this will happen in practice and what its precise financial impacts will be.

In particular we need to be able to couch the outcome in measurable and quantitative terms that are part of the financial and valuation metrics of a company so that we can link behaviors and cognitive biases directly to profitability and capital creation or consumption. Specifically we need to be able to predict not only if a specific merger will be successful or otherwise but the degree to which it will be so, measured in terms of market capitalization relative to its peers.

The Problem of "Non-Financial" Decisions: The new behavioral disciplines have applied their methods to financial outcomes, even though they cannot measure these quantitatively. Ye it is clear that decisions that might appear not to be financial or economic in nature often have financial consequences. For example, a highly extroverted leader who is not aware of his cognitive bias in this area will often tend to spend a lot more than an introverted peer.

This means that M&A analysis cannot capture the financial implications of supposedly non-financial cognitive biases. This is especially the case with cultural analysis currently the fashionable way to argue that M&A outcomes can be predicted. Cultural analysis has no such predictive power which results in a huge shortfall in even this approach to merger analysis and prediction.

The Problem of Non-Financial Actors: The behavioral disciplines started their work by focusing on consumers and investors. It was only later that they broadened their focus to corporate managers but even then the focus was on corporate financial managers rather than all managers.

But the work has not yet broadened its reach to actors who are explicitly focused on non-financial issues such as corporate managers of sales for example. Yet it is clear that these players also have an impact on business outcomes through the impact of their cognitive biases. Just because they are not primary initiators of investment or P&L managers does not mean they do not have an impact on the overall P&L of the organization, or on its valuation.

But the behavioral disciplines are not so comfortable in the non-financial arenas and so have tended to avoid these issues. So these new disciplines so far are more oriented to actors who are explicitly economic and financial actors which limits the applicability of the research to some of the most intriguing and important management issues in corporate mergers.



Atomism and Outcome Problems Most Important: Of the above, the atomism and outcome problems are the two most important. This is because they prevent the theory being operationalized so that it can be used in practice to improve mergers. If the aim of a scientific theory is control, then the behavioral disciplines are still some way away from this goal. Later in this White Paper we will show some later developments that specifically address these problems and provide some solutions.

Recent Empirical Studies Start to Address Behavior and Business Outcome

However there is increasing work which investigates the decision-making characteristics of CEOs and managers and links these to their impact on company financial and valuation performance. One pioneering piece of research by Marianne Bertrand and Antoinette Schoar specifically looks at the managerial characteristics of CEOs to investigate their impact on a wide range of corporate financial variables.⁶

More recent research shows the consistency of financial styles between personal and corporate financial choices on the issue of personal and corporate leverage, again linking financial behaviors with financial outcomes. It shows that CEOs' personal financial behavior is at least partially predictive of their companies' financial performance.

So the emerging research shows clearly that the behaviors of leaders are directly correlated with merger outcomes. The problem is that there are no theoretical constructs or models underlying the behavioral side of the problem that link them with precise financial outcomes. That is the next problem that needs to be addressed for M&A analysis to become of practical use

New Form of Behavioral Analysis Allows Prediction of M&A Outcomes

All Cognitive Biases Have Financial Consequences

The research conducted by our team suggests a fundamental new way of looking at cognitive biases. This is that all cognitive have financial consequences. This is the case even when the cognitive bias appears to have no possible links to financial outcomes whatsoever.

Take for example the cognitive bias of extroversion. Extroverted people are gregarious and social. There is plenty of evidence to suggest that this leads to an increased propensity to spend money,



since this activity can reinforce relationships. This means that extroverts tend to have higher expenses which will show on an income statement of a company. Of course, many extroverts have figured this out and have learned how to compensate for this propensity. But this is an example of how a human trait that one would not think had any financial consequences in fact can have them.

Extroverts also tend to have lower impact on value-adding than introverts. This is not due to any difference in intelligence or capability but merely because they tend to focus their energy outwards rather than inwards. So this also impacts financial metrics such as gross margin and will also show up in an income statement.

The basis of our approach is that all behaviors have real-world consequences and impacts. All business behaviors, all of which are based on cognitive biases, have both general business and financial consequences. The problem is that current M&A models have no framework to figure out what these are. Nor have behavioral economics and finance been able to identify all the cognitive biases that are important to business outcomes and in any case cannot quantify the financial consequences of even the ones they have identified.

",,,,All business behaviors....have business and financial consequences...."

Below we will present two behavioral models that are linked and that predict the real-world business and financial consequences of a number of cognitive bases. The first model is the Leadership

Cockpit® model. This shows for each of the cognitive biases in the model the business operating outcomes of that bias. The second is the Financial Signature® model. This shows for each of the two cognitive biases involved the financial, profitability and valuation consequences of these two biases.

There is a deep relationship between the business personality and financial traits models outlined above. This is that every cognitive bias in the Leadership Cockpit® has a defined and measurable business consequence. We call these 16 types, leadership outcome types.

To take an extrovert as an example again, unless they have learned how to compensate for this characteristic, are sometimes high on resource utilization and low on value adding. This results in relatively low gross margins and relatively high expenses. Each of the 16 leadership outcome types in the Leadership Cockpit® can be analyzed in the same way. Thus we can build a precise leadership outcome and financial signature model of each individual knowing which will predict their business and financial impacts. We can do the same for a team.

But we cannot say that these financial consequences will be the same within each leadership outcome type because the intensity of the cognitive bias has a profound impact on the financial outcome and varies significantly with each. Thus for each leadership outcome type there is a map

of financial consequences within it. This depends totally on the intensity of the cognitive bias. This means that we can rate each point within a leadership outcome type on the basis of its value-adding and resource utilization impacts and thus its gross margin and expense impacts.

This map can be used to distinguish between the Financial Signature® and the financial mission of an individual or team, The Financial Signature® refers to the financial outcomes that result from their innate financial traits. The Financial Mission refers to the current behaviors that result from learning and the impact of the current environment.

This distinction is a crucial one that in current leadership models has never been applied. This leads to frequent confusion as to whether current assessment results reflect the subject's "real" innate behavior, or behavior they have learned in order to compensate for their innate behavior. This is the Achilles heel of traditional personality and competency assessments which this model specifically avoids.

The Cognitive Biases of Business Personality Drive Business Operating Outcomes

The research⁸ conducted by our group (Perth Leadership Institute) has been able to link cognitive biases directly and measurably to business and financial outcomes. In the case of business outcomes, the model employs 8 axes which represent the 8 cognitive biases that link directly to business outcome and thus leadership impact. This model is called the Leadership Cockpit®.

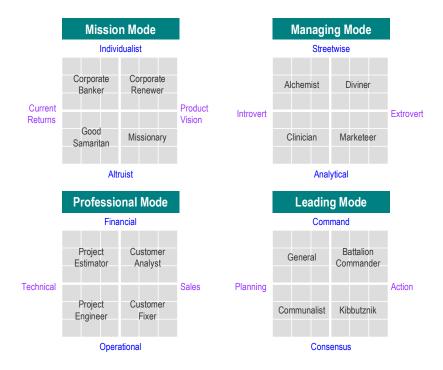
There are eight cognitive biases that have identifiable business outcomes. These are:

Risk/reward bias
Recognition bias
Relationships bias
Logic bias
Customer bias
Execution bias
Reaction time bias
Delegation bias

Each of these is an axis on which one can be placed on one end or the other or somewhere in the middle, this allows for psychometric measurement of each of the axes. The Perth Leadership Institute has developed a psychometric assessment (the Executive Outcome Assessment) to measure these which it has been using in its work with companies for several years.

These axes are grouped together as shown in Figure 1 The Leadership Cockpit® to result in 16 leadership outcome types. Each type shows us the type of leadership outcome that results from the individual's possession of these cognitive biases. The types also can apply to a team, where the aggregate dominant type is calculated from knowing individual results.

Figure 1 The Leadership Cockpit®



The Leadership Cockpit® identifies 16 types of business personality or leadership outcome type, each with an associated and characteristic business outcome.

For example, the **Project Engineer** is an individual who is very technically and operationally oriented. These are his own cognitive biases. Project Engineers who have not compensated for these biases have a characteristic impact. Their organizations are mainly focused on product features, quality and company operations. Sales and finance are under-emphasized. Their gross margins are average to good but their expenses are relatively high. Sales growth is usually subpar and the culture tends to discriminate against salespeople. We can provide similar descriptions for the other 15 types.

The 16 types are grouped into four leadership outcome modes. These modes describe the main goals of the individual involved. They are:

- Mission mode life aspirations
- Managing mode how decisions are made
- · Professional mode area of professional comfort
- Leading mode leading preferences

Each individual will have a dominant behavior in one of the modes and secondary behaviors in the other 3. These can be identified and measured precisely through use of the psychometric assessment.

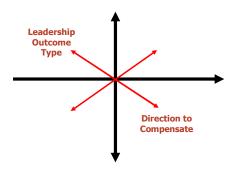
The Leadership Cockpit® can be applied at the level of the individual or, through aggregate data analysis, at the level of the team, company or other type of organization (e.g. an NGO). It will show us for any individual or group what its business and operating focus is resulting from its

cognitive biases. These focuses can, broadly, be sales, operations, finance or R&D. However each of the 16 types has its own particular flavor, for example the Corporate Renewer, the quintessential visionary with a high degree of focus, just like the late Steve Jobs.

The Leadership Cockpit® can show us what the resulting organization will be good and bad at, what it will tend to ignore and the business consequences of this gap. It will also provide us with information about the financial consequences of these business impacts. It thus provides a completely new approach to leadership in business by showing the actual business impacts of the cognitive biases, in the cases of specific individuals, teams or companies.

The Leadership Cockpit® also has another important property. That, is it **shows the approach to be able to compensate or to correct for one's cognitive biases**. Since each end of an axis is the opposite of the other, the way to compensate for the weaknesses of a particular leadership outcome type is to move across the diagonal to the opposing diagonal quadrant as we show at Figure 2 Correcting for Leadership Outcome Type. The model shows us the strengths of each of the 16 types. The diagonal shows how each type needs to change in order to compensate for these strengths once one has general management reasonability.

Figure 2 Correcting for Leadership Outcome Type



We can now see how this can be applied to merger analysis. We can identify for each merger partner their particular leadership outcome type. This will show us how similar or otherwise each party is and where the main points of conflict are likely to be together with ether associated business outcomes. The merger architects can identify where they want the merger to end up in terms of leadership outcome types and resulting business outcome.

Then we can use the change mechanism of going across the diagonal to prescribe the sorts of behavioral, process, management and organizational changes we need to effect in order to arrive at the optimum business outcome and its associated leadership outcome type.

In other words we can now address directly and formally the issue of the differing cognitive biases of the two companies. We can formally identify the best way to address these so that we achieve the desired business operating outcome. This addresses the issue of non-rationality and business outcome that we have shown above are not yet addressed by the disciplines of behavior economics and behavioral finance.

The Cognitive Biases of Financial Signature Drive Profitability Outcomes

But this is not all that an M&A analysis wishes to achieve. M&A analysis also wants to predict the actual profitability that will occur under the tenure of a specific individual or management team in a specific company in a specific market. Even more so, their shareholders and investors, if not competitors, will want to be able to predict the actual market valuation of the company within the ambit of a specific merger transaction.

Our team has also developed a model that directly links to the Leadership Cockpit® that achieves this. This is called the Financial Signature® model. This model identifies the cognitive biases that underlie financial traits and links them to financial and valuation outcomes. Description

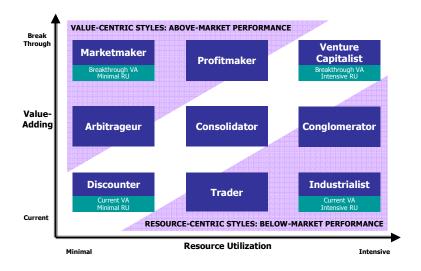
The two cognitive biases underlying the Financial Signature® model are the **status quo bias** and the **resource utilization bias**.

- The status quo bias is the <u>propensity to want to stay with the status quo</u>. The greater this
 propensity, the lower the level of product value-adding and the lower the gross margin
 relative to competitors.
- The resource utilization bias, is the propensity to use more or less resources to achieve a given goal. "Resources" means things like money, time, people, things, intangible assets etc. The higher the propensity, the higher the expense level relative to competitors. 11

There are nine financial signatures, as shown below. Three of these will **create capital**: these are the three **Value-Centric** styles – the Marketmaker, Profitmaker and the Arbitrageur. Three will **consume capital**: these are the three **Resource-Centric** styles: the Conglomerator, Trader and Industrialist. Three will **neither create nor consume capital**: these are the three **Balanced** styles: these three will on average break even. They are the Venture Capitalist, Consolidator and the Discounter.

These three styles correspond to those leaders and companies that respectively **outperform**, **under-perform or level-peg** in their own core markets relative to their peers. This also relates to their valuation outcomes relative to their close competitors. This model is shown below at Figure 3 The Financial Signature® Model.

Figure 3 The Financial Signature® Model



The Financial Signature® model extends the reach of the Leadership Cockpit® model by revealing the precise financial and valuation consequences of the 16 business personalities. The two axes actually correspond to the level of gross margin relative to competitors (the value-adding axis) and the level of expenses relative to competitors. The difference between the two is indicative of operating profit.

Financial Signature® essentially identifies a person's or a team's propensity to create capital. Another way of putting this is it identifies the level of business acumen. Essentially in this model, business acumen is the level of innovativeness (value-adding) minus the level of expenses required to achieve the level of innovativeness. So in this model innovation is a key component of business acumen since it supplies the growth part of the model in the form of the behavioral propensity to innovate. ¹²

Financial Signature® identifies a person's or a team's **propensity** to create capital

As with the Leadership Cockpit®, the Financial Signature® of an individual, team or company can be identified and measured using an online assessment. This is the Financial Outcome Assessment, which we have been using for

several years in our work with companies.

Once this data has been obtained using this and other assessments, other tools can be employed to make a direct financial prediction of profitability and market value. So again this model allows us to go well beyond current M&A models to directly measure financial outcomes including profitability and valuation in quantitative terms.

And Ultimately Valuation Outcomes

We can identify three basic patterns of valuation outcome for any company. These are:

- Growth Valuation Outcomes
- Decline Valuation Outcomes.
- Growth and Decline Outcomes.

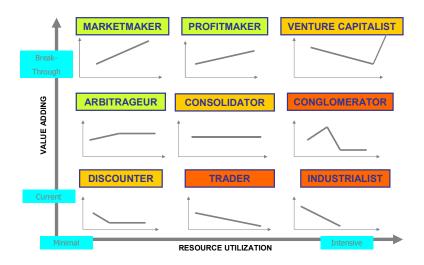
Each of these three valuation types has three specific sub-types of valuation outcome, making nine specific valuation trajectories in all. These nine trajectories correspond to one of the nine financial signatures, as shown below.

Type of Valuation Outcome	Specific Valuation Outcome	Financial Signature
Growth Valuation Outcomes	Fast Rising Tide.	Marketmaker
	Gently Rising Tide	Profitmaker
	High Plateau	Arbitrageur
Decline Valuation Outcomes	Quasar	Conglomerator
	Dying Swan	Trader
	Endgame	Industrialist
Growth with Decline	Balloon	Venture Capitalist
Outcomes		
	Steady State	Consolidator
	Low Plateau	Discounter

The link between them is both logical and empirical and is detailed further in our research.¹³ We can use this relationship to depict the valuation outcome associated with any of the nine financial signatures. This provides us with an additional level of detail relating to financial outcomes. In

addition it is the best measure from the perspective of the shareholder since it can be directly converted to EPS, the metric on which the shareholder is most focused.

Figure 4 The Nine Valuation Trajectories



The valuation model allows us to perform some very useful functions in terms of M&A analysis. First it allows us to specify, for any particular specific desired valuation or feasible valuation trajectory, the financial styles that are needed to achieve it.

It then allows us to specific the type of leadership outcome styles that will produce the operating characteristics that most closely match the financial style and the required valuation trajectory. In turn this allows the merger architects to identify those managers who most closely match these capabilities and styles, and actions required to make the match better through actions such as briefing, development programs and so on.

It also opens up analysis to whether or not managers for particular positions should be from one partner or the other of the two companies to be merged, whether they should be outside or inside candidates and whether they should be selected via promotion or development.

In sum having a model that links financial styles formally to valuation outcome provides a direct path to link specific managers with particular competencies to achievement of the valuation desired by shareholders and investors. It thus meets the criterion that performance management, development and shareholder valuation goals and precise targets should be able to be linked formally in the same model.

Behavioral Alignment is Critical to Merger Outcome

Financial Culture Alignment Key to Future Valuation

Earlier this White Paper has referred to the cultural explanation for merger failures. This states that it is the differences in "culture" between the two parties to a merger which most often leads to any failure. But it is very difficult to find any definition of culture which is measurable in these explanations. Moreover even if there were one, these explanations are not able to link the culture formally to financial metrics.



We have seen that we can use behavioral styles to predict operating, profitability and valuation outcomes. Of course behavioral styles in total make up the culture of a company. In effect a culture is the aggregate of the behavioral styles in an organization. The sum total of the operating and financial styles in an organization can be seen as its financial culture. Another way to look at this White Paper is to say that it has shown how the financial culture of an organization impacts financial and valuation outcomes.

Viewed in this light, culture does impact the outcome of a merger. In fact, the two cultures of the merger partners will impact its operating, financial and valuation outcomes in ways we can formally model and measure. The behavioral styles model provides us with the missing link between culture and merger outcome.

We can now draw together the strand of behavioral styles, culture, talent management and operating and valuation outcomes. We can now see that the valuation of an organization can be predicted from its current talent base, its inventory of leadership outcome and financial styles. However a valuation target will not be achievable if the requisite behavioral styles are not in place.

In order to achieve its valuation target an organization needs to match its behavioral styles with the valuation target. It can do this either by selecting people with the right styles or by developing people to transition them to the right styles.

",,,,behavioral styles provides us with the missing link between culture and merger outcome...."

Thus the financial culture of an organization must be appropriate to its valuation target. If it is not, then it will not be able to achieve it.

The same principles hold true of a merger. If the combined aggregate inventory of behavioral styles at the right levels matches the behavioral needs of the valuation target for the merger then it will be achieved. But if this inventory of talent capabilities doe not match the valuation target, then the valuation target will not be achieved. In this case there will be a need to change the behavioral styles and thus the financial culture of the organization such that it matches the needs of the valuation target.

Then the job of the merger architects is to conduct a talent analysis and adjust its talent management strategies accordingly to ensure that the right behavioral assets are selected, developed and moved to the correct functional and hierarchical locations to ensure that the organization and culture changes in the right ways to meet the valuation target.

In conducting this exercise the merger sponsors and architects will need to answer the following questions:

- What do the financial statements of the two organizations say about the types of financial styles they have now and are these the ones that we need to achieve the merged valuation target?
- What type of financial culture do we need to achieve the valuation target?
- What types of people do we need to achieve certain financial metrics such as growth and gross margin?
- What does the target balance sheet mean for the types of people we need?

In sum, the behavioral styles approach resolves the culture explanation by converting the term "culture" into financial culture and by linking these behavioral styles directly to measurable financial outcomes.

In this explanation, mergers fail because the behavioral styles of the combined organizations do not match the behavioral requirements of the valuation target set for the merger. Now the question to ask is; what are the precise behavioral characteristics which will lead to merger failure?

Poor Alignment of Operating Styles Dooms Corporate Effectiveness

The fundamental principle driving merger success is the degree of alignment between behavioral styles and valuation target. The closer the alignment the more likely it is that the merger will achieve its target valuation. However alignment needs to be viewed from two perspectives, that is form the operating perspective and the financial perspective.

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The fundamental principle driving merger success is the degree of alignment between behavioral styles and valuation targetIn the case of the operating perspective the Leadership Cockpit® is the guiding model. Here the basic principle of operating success is that of balance. By this we mean that there cannot be too much of a preponderance of any one type otherwise the vulnerabilities of that type will eventually have an adverse impact not only on the operating but on the financial outcome of the merged entity.

However balance does not mean it has to be mathematically perfect. There will usually be an operating focus for a combined entity governed by strategy. For example in the earlier stage of a market, product development might be the operating focus. Where the market is mature, marketing and cost reduction might be the focus. So the overall principle of balance will be moderated by the operating focused dictated by strategy including the type of market in which the company is operating.

This is another way of saying that the leadership outcome types of the combined management team must match the operating target of the combined company. For example, if the target is to be primarily marketing focused, then there must be a large enough behavioral inventory of the requisite types – Marketeers – in order to provide sufficient talent fuel for the marketing goals to be achieved.

So from an operating perspective the combined entity needs to have a balance between leadership outcome types that are tuned to the precise strategic objectives of the company. If this is not the case there will be a lack of alignment between these leadership outcome behaviors and the strategic operating focus of the company. In this case the merged entity will tend to fail.

The greater is the level of mis-alignment, the higher will be the chances of failure. When there is such a high level of misalignment, this will normally be seen as a gap between the cultures of the

two companies because it will be clear from both the inside and the outside that the two sets of people and cultures are "not on the same page".

Different Financial Styles Doom M&A Outcome

A financial signature fundamentally reflects the comfort zone of a manager in the ways she chooses to create value. Therefore if two people have similar financial styles, they prefer to create value in quite similar ways (for example through medium value-adding and low resource utilization). So in the case of financial styles the alignment rule is much simpler. If financial styles are close then the probability of success is increased. If they are far from each other, then the chances of failure increase.

This means that a merger between companies that are, for example, both value-centric will be much more likely to succeed than one in which one is value-centric and one is resource-centric. In fact one can measure the level of alignment simply by measuring the distance between two financial styles. Where they are widely separated the chances of failure are much greater than otherwise.

Paradoxically one implication is that a merger between two resource-centric companies is likely to be much more successful than one between a resource –centric and a value-centric company. The ultimate result will depend on whether the main protagonists in either situation

"....If financial styles are close then the probability of success is increased...."

have the vision, understanding of behavioral styles and mental agility to be able to make the necessary changes to be able to transition the two parties' managers so the two combined management teams move to a financial mission which is better aligned with the combined valuation target.

This is the sociologist's way of saying that if two cultures are very different, their chances of successful collaboration will decrease. Once again we can translate the behavioral discussion into a financial and valuation discussion and again into a financial culture discussion.

Aligning Behavioral Styles Provides the Right M&A Blueprint

Now we can employ the tools for business personality and financial traits to identify and measure the business and financial mission of a company or other type of organization. Since the tools already provide us with the business and financial mission of an individual or team, we can now identify and measure quantitatively the level of alignment or otherwise between an individual or team, and the broader organization of which they form a part. We can define this match or mismatch in quantified financial terms.

We can also identify the level of change – behavioral, process or otherwise – to bring about alignment and the extent to which this will improve the profitability and valuation of the company or organization. In other words, we can quantify in financial terms the financial outcome of the organization's culture and measure whether it is cost-effective or even possible to make a change. This information is useful for a variety of purposes including strategy, market positioning and repositioning, to mention just a few.

Of course the model also provides a way to align leadership talent with the business mission of an organization. ¹⁵ It thus also serves as a talent identification, selection and development tool. <u>It therefore meets the strictly human resources dimension of the leadership and M&A equation</u>.

We Can Use This to Improve M&A Success Rates

Applying the New Form Behavioral Approach to Real-Life Mergers

Perth has a unique approach to M&A which provides a new channel for value creation in these



situations. This approach is based on our model of behavioral finance which demonstrates that the business and financial styles of management teams and the financial cultures of the merging organizations are critical factors in the success or otherwise of the combination.

Using Behavioral Styles in M&A

Much earlier we have commented that the problem with "cultural" approaches to mergers is that they do not possess a model that formally links behavior with business and valuation outcomes. 16

However we agree that it is critical that there be a behavioral and cultural emphasis; it is just that it needs to be formal, replicable, and based on good science that links the behavior with business outcomes.

The Perth approach to M&A is applied to the following phases of the merger.

- To support and refine acquisition strategy.
- To enhance the target screening process
- Identifying future valuation outcome & how to increase it.
- Designing the acquisition team to match financial styles of target.
- Refining post-acquisition and absorption strategy.

To support and refine acquisition strategy: The White Paper is suggesting that acquisition strategy comprise two prongs. One prong is traditional analysis in order to construct a proforma in order to identify a baseline valuation post-merger. The other is behavioral analysis where behavioral styles based on the models in this paper are used in a nontraditional way to calculate a new post-merger valuation refined using the new behavioral analysis.

We call this second prong a **behavioral proforma**. A behavioral proforma uses both the Leadership Cockpit® and the Financial Signature® model to show the likely outcome of the merger, with both unreconstructed and reconstructed management teams. The reconstructed management teams are based on both of the behavioral models outlined here. This will allow the creation of a traditional proforma and a behavioral proforma. The two valuations can then be compared to identify the best approach to maximizing the value of the merger.

"....A behavioral proforma uses both the Leadership Cockpit® and the Financial Signature® model to show the likely outcome of the merger...."

To enhance the target screening process: The traditional screening process combines market, product and financial analysis to screen corporate candidates based on predefined criteria to judge each potential target. However in the new method suggested by the White Paper, a behavioral approach is adopted based on the Leadership Cockpit® and the Financial Signature® models.

The first step is to screen corporate candidates using the Leadership Cockpit®. This will provide the leadership outcome type for each candidate and its unmerged operating outcome. Its leadership outcome type can be compared with that of the acquirer to judge the extent of alignment or otherwise in order to assess the probability of success based on the similarity of

business behaviors and leadership outcome types and its relevance to the strategic business goals of the merger.

Once a candidate is chosen as the merger partner the full analysis can then go further to assess the likely operating outcome based on the level of alignment between the two styles, and on the leaders who will be chosen to manage the combined entity.

The second step is to screen candidates at the corporate level using the Financial Signature® model. This will provide an estimate of the valuation of the two merger parties both before and after the merger. This can be compared to the acquisition strategy's valuation target based on its internal hurdle rates for shareholder return for the merger.

Identifying future valuation outcome & how to increase it: Once target screening is completed, we then move to a more complete analysis of future valuation. Again both the Leadership Cockpit® and the Financial Signature® models will be used. However they will be used in a different way.

In the target screening phase, they are used only at the level of the company and the management team, but not at the level of individual managers and executives. In this phase these models are applied at the level of each individual in the two management teams to provide a detailed and fine-grained behavioral analysis of each member of the combined management team.

At this stage there will need to be a thorough analysis of all the individuals in the management teams in each of the parties to the merger, so that we understand both their leadership outcome types and their financial signatures. This will provide us with a thorough analysis of each individual which can be used to simulate the new combined management team.

This phase will preferably assess several different potential management teams to simulate various management options for the combined entity. For each of the simulated management teams there will be a resulting operating and profitability and valuation outcome based on the behaviors of the different teams. These valuations can then be compared to see which management team results in the best operating and valuation performance.

This approach allows us to conduct a <u>valuation sensitivity analysis</u> in which we can test the sensitivity of the various operating and valuation outcomes to the management team that drives it. This simulation therefore goes way beyond current M&A approaches to test managerial competencies within a range of market, product and behavioral scenarios.

Designing the acquisition team to match behavioral styles of the target: One of the tasks would be to construct an acquisition team whose behavioral styles are either matched to that of the other merger partner, or to the reconstructed combined post-merger management team. There are a number of reasons to do this:

- To increase the understanding of the acquisition team of the corporate culture and behavioral dynamics of the merged entity
- To show the merger target that it understands the target's culture and behaviors and is well-equipped to manage the combined entity
- To add to other overall credibility of the pre-merger process
- To reduce the any problem of passive resistance to the merger
- To reduce the likelihood of the acquisition being seen as an "imperial" exercise in which there will be winners and losers
- To reduce the frequent issue of shareholder dilution which occurs post-merger when the stock price of the acquiring entity declines.

Refining post-acquisition and absorption strategy: Clearly a huge part of the merger process is the post-merger integration. This is where the Leadership Cockpit® and the Financial Signature® models can play a critical role.

We can use the same approaches to ensure that the behavioral styles of teams below the top team are also aligned. This can be done in a number of ways. First it can be done by assessment and selection so that the individuals with the best alignment characteristics are selected.

Second and even more important is to be able to show managers and executives who are not as well aligned with the top management team what they need to do to become more aligned in a behavioral sense in both the operating and valuation behavioral styles.

This needs to be achieved with joint development programs which include senior managers and executives from both parties to the merger. These development programs for senior management teams on both sides of the combination will make them aware of differences in business and financial styles, how it will impact the success of the combination and what to do to enhance the success of the initiative.

One of the major problems with mergers is not that merged managers wish to resist the new order. It is far more likely that they simply do not understand it, nor understand what they need to do in a constructive way in order to become more aligned. Using the behavioral styles approach provides a formal and easily understandable process to facilitate this re-alignment. In so doing, the training programs involved will also allow participants a forum to discuss differences and identify ways themselves to address them.

Will Result in New Benefits to Acquirer and Acquiree

There are a number of benefits from using the new behavioral approach set out above which address the critical issues we have outlined earlier that are leading to so many merger failures. These are:

- It provides a formal model linking managerial behaviors to operating, financial and valuation outcomes.
- For the first time it allows for formal predictions to be made about the likely success of a merger.
- It provides an operating blueprint for architecting and engineering a merger for maximum success.
- By using this approach an organization takes specific account of behavioral and cultural factors in planning and executing the acquisition which are not usually formally considered.
- It increases the attractiveness of an acquirer through demonstrating sensitivity to cultural and behavioral issues.
- It supports and enhances a creative strategy to minimize adverse stock impact from dilutive acquisition.

Footnotes

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³ ANDRES COTTIN, WERNER REHM, AND ROBERT UHLANER, "GROWING THROUGH DEALS: A REALITY CHECK" MCKINSEY QUARTERLY, APRIL 2011

McKinsey perspective on getting practical in Perspectives on merger integration, May 2010, p. 42 about culture in M&A

⁶ "Managing with Style: The Effect of Managers on Firm Policies"; <u>Quarterly Journal of Economics</u>, 2003, 118(4), pp. 1169-208

⁷ Cronqvist, H, Makhija, A. K., Scott E. Yonker, S.E, "Behavioral Consistency in Corporate Finance: CEO Personal and Corporate Leverage" June 2010,

http://74.125.155.132/scholar?q=cache:yO5GnN9KuNoJ:scholar.google.com/&hl=en&as_sdt=40005&sciodt=40000

⁸ E. Ted Prince, <u>Business Personality and M&A Success: Using the Leadership Cockpit to Improve Your Career and Company Outcome</u>, Amazon Kindle, 2011, http://www.amazon.com/Business-Personality-M&A-Success-

<u>ebook/dp/B004SY9LBS/ref=sr_1_3?ie=UTF8&m=AG56TWVU5XWC2&s=books&qid=1300723841&sr</u> =1-3

⁹ E. Ted Prince, The Three Financial Styles of Very Successful Leaders: Strategic Approaches to Identifying the Growth Drivers of Every Company, McGraw Hill, 2005.

¹⁰ E. Ted Prince, "The Fiscal Behavior of CEOs" <u>MIT Sloan Management Review</u>, 2005 Spring vol. 46, no. 3, 23-26.

¹¹ E. Ted Prince,. "Research Note: How the Financial Styles of Managers Impact Financial and Valuation Metrics" Review of Accounting and Finance, Vol. 7, Issue 2, 2008 193-205

¹² E. Ted Prince,. "Learning to Unlearn: The Innovation Connection", Chief Learning Officer Magazine, Sept 2009

¹³ Prince, The Three Financial Styles of Very Successful Leaders, Chapter 10, p. 169.

¹⁴ E. Ted Prince, "How Culture Impacts the Bottom Line" Chief Learning Officer Magazine, 2007 February

¹⁵ E. Ted Prince, "How to Make Human Resources More Relevant to Corporate Financial Objectives." Human Resource Management International Digest, 2006 Vol. 14 No 2, March, 3-4

¹⁶ See for example Harding, D., and Rouse, T., "Human Due Diligence", <u>Harvard Business Review</u>, April, 2007, vol. 85, no. 4, pp. 124-131.

¹ Matthias M. Bekier, Anna J. Bogardus, and Tim Oldham, McKinsey Quarterly, November 2001

² Pautler, Paul A. "The Effects of Mergers and Post-Merger Integration: A Review of Business Consulting Literature", Federal Trade Commission, Bureau of Economics, January 21, 2003, unpublished internal paper.

⁴ Clay Deutsch & Andy West, "A new generation of M&A": A McKinsey perspective on the opportunities and challenges, McKinsey, in Perspectives on merger integration, May 2010, p.7

⁵ Oliver Engert, Neel Gandhi, William Schaninger, & Jocelyn So, "Assessing cultural compatibility": A