

The relationship between personality and the capacity to think strategically

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Abstract

Effective leaders who have the capacity to solve complex, strategic business problems are a key differentiator in the new world of work. As external environmental changes converge with internal organisational shifts, the need for a strong bench of leaders becomes critical in driving profitable growth. This study explores the relationship between personality and the capacity to think strategically, an important component of managing the complexity of the emerging environment.

Based on the California Psychological Inventory and Career Path Appreciation assessments of 256 managers and executives, the existence of relationships between a number of personality factors and the respondents' future potential capability (FPC) were tested to identify which personality factors are predictors of the potential to think strategically. Anchored in Complexity Leadership Theory (CLT), this research builds on the leadership functions of CLT to provide new insight into the role of individual characteristics in the ability to think strategically.

The consolidated findings identified Dominance, Flexibility, Achievement via Independence, Psychological Mindedness and Self-Acceptance as key constructs in the ability to think strategically. These outcomes sharpen the new leadership profile and enable the development of tools that can directly improve the organisation's ability to identify, attract, select and develop leaders who are proficient in the emergent, complex context.

Key words: *strategic thinking; personality; complex adaptive systems; complexity leadership theory; strategic leadership*

1 Introduction

Heifetz, Grashow and Linsky (2009) have claimed that leadership is in a permanent state of crisis, with the competencies that defined success in the past failing to realise the same benefits as before. Leadership has shifted from its role of creating and maintaining certainty to one of "leading through uncertainty" (Gwyer 2010). This study endeavours to create a deeper understanding of the ability to lead in an evolving landscape that requires complex thinking.

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The quality of the executive talent pool is critical in maintaining organisational relevance in a complex business environment. The economic recession, technological evolutions, globalisation of industry, disintegration of industry, political instability and natural disasters are phenomena that direct attention to the complexity and ambiguity that define the current environment. In addition to the dynamism of the competitive landscape, pressures to achieve excellence in the triple bottom line, the velocity with which the media scrutinise business decisions, and the immediacy of the burgeoning social media with its reputational consequences – all converge into a complex new world of work for executives. Given these increasing cognitive demands, the number of leaders comfortable and competent in this new setting is rapidly declining, while the demand is increasing (Watkins 2012). The “war for talent” introduced by McKinsey in the late 1990s has not abated as organisations compete fiercely to identify and attract individuals who generate value and enable the achievement of organisational objectives. Notwithstanding high unemployment, individuals who have the capacity to rapidly assume more complex roles remain in critically short supply, resulting in significant limitations to growth (Corporate Executive Board 2013).

The late Nelson Mandela is an example of the type of leader that is in such short supply and much has been made of his unique leadership style. Observers refer to his courage, sacrifice, wisdom and nobility amidst “complex societal forces” (Schoemaker 2013), but most importantly, they emphasise his persistent focus on the future. He dismissed the past as it held no usable framework for the future. This ability to create a new vision for seemingly insurmountable problems, within an ambiguous and discordant context, displays an ability to make strategic decisions and manage complexity.

It is not only iconic leaders who require this ability. In a national survey of business leaders in the USA, 93% of survey participants said that the ability to solve complex problems was the most important consideration in selecting graduates (Association of American Colleges and Universities 2013). This ability to solve complex problems is the basis for effective strategic decision making. Therefore, as the business landscape grows increasingly complex, the capacity to think with complexity becomes a minimum requirement for successful leaders. This has a direct impact on the talent management strategy of organisations in their quest to acquire and develop a high potential executive talent pool able to meet these new demands.

Identifying these new leaders is problematic. If the past no longer holds the answers to the future, then the traditional processes of recruiting and selecting leaders may be questionable in the current environment. These traditional processes include competency-based interview approaches, where individuals’ past behaviour is used to predict their future behaviour. Many organisations also utilise intelligence tests to evaluate the amount of cognitive power available to individuals for managing complicated organisational variables. More recently, personality assessments have entered the recruitment landscape to enable an improved person-organisation culture fit. However, personality continues to be viewed as an additional construct worthy of evaluation in only the most progressive companies. Assessment of the role of personality is still seen as a “new-age” methodology that has no place in the rational complexities of business. Notwithstanding this, some insights into personality and the ability to make strategic decisions competently have been explored. Evidence that a correlation between personality and complex thinking exists can be found in Herrmann and Nadkarni’s (2013) exploration of the influence of the personality of the CEO. They found that personality attributes definitively shape the manner in which CEOs interpret

and respond to the environment and that the CEOs' individual analyses directly influenced their strategic choices, thereby offering a correlation between personality and strategic choices within a change environment (Herrmann & Nadkarni 2013). However, this relationship is not widely leveraged, as evidenced by the number of CEOs who fail. According to Williams (2009), between 30% and 75% of Fortune 500 top executives fail to accomplish the objectives required of their role. It is therefore suggested that by understanding the relationship between personality and the ability to think strategically, organisations would be able to improve their leadership profile, by identifying particular personality traits that lend themselves to successful leadership.

It can therefore be postulated that individual personality characteristics play an increasingly important role in navigating the complex organisational landscape. Hogan and Judge (2012) investigated the nature of leadership to determine whether leadership was a function of circumstances or a function of personal characteristics. They found that leadership was inextricably linked to personality, and that leadership attributes could be considered personality attributes (Hogan & Judge 2012). These talent management factors all unite as an acute challenge to business sustainability, and emphasise the importance of identifying a new profile of the business leader: a leader who can personally manage the growing complexities through effective strategic decision making.

Whereas previous research explored various aspects of strategic decision making and leadership characteristics (Lim 2012; Ahmed, Hasnain & Venkatesan 2012; Venkatraman & Huettel 2012; Bracha & Brown 2012; Hoffman, Woehr, Maldagen-Youngjohn & Lyons 2011; Gelissen & De Graaf 2006; Leone, Penolazzi & Russo 2013; Muehlfeld, Van Doorn & Van Witteloostuijn 2011; Hall 2007; Bowler, Bowler & Cope 2012), the purpose of this study was to test the relationship between personality factors and the ability to think strategically, thus establishing the existence of those personality factors capable of predicting the ability to think strategically.

This research is intended to provide practical solutions for the talent management practices of human resource departments, by exploring the relationship between personality and the potential ability of leaders to think strategically. It is hoped that answers to this question will help companies to define the required leadership profile in order to:

- identify a talent pipeline that can be groomed for future leadership positions; and
- determine strategic thinking profiles at the middle management level to deepen the ability to manage change in the new organisational context.

2 Literature review

2.1 The leadership context

The reductionist approach to organisational functioning has made way for new interpretations that better serve our purposes in making sense of the complex and dynamic environment in which we now live and work. Complexity science developed from a foundation in physics, where relationships were investigated that gave rise to collective system behaviours. This has given rise to a new view of the organisation as multidimensional in nature, with the focus on the notions of interconnectedness and evolution (Schneider & Somers 2006). If the complex nature of the environment is understated, the result is likely to be poor decision making. The 2008 financial collapse is a clear illustration of poor decision making where several interconnected events,

which individually appeared benign, or even positive and lucrative, collectively resulted in an economic catastrophe. Sargut and McGrath (2011) unpacked these distinct events as: the relaxation of banking regulations, flexible monetary policies, and the development of instruments that shifted risk off the balance sheet. Individually, these events were complicated yet non-threatening, but collectively they were complex and catastrophic.

To further illuminate the construct of complexity, it is useful to define what is meant by "complicated". While complication can also refer to the solving of problems with multiple components, this construct is primarily linear and stable in nature. Sargut and McGrath (2011) described a complicated system as one with several moving parts that operate in "patterned ways". This is unlike a complex system that is infused with patterns that interact with each other and thereby change continuously (Sargut & McGrath 2011). Changing patterns are an integral part of the notion of complexity. These changes happen over time, and so time is important when defining complexity. For the purposes of this study, therefore, complexity is defined as a system in which multiple independent agents interact with each other and change in numerous ways through time (Stamp 1993).

2.2 Strategic decision making

A useful way to approach complexity in the workplace is through the decision-making process of leaders, or more specifically, the strategic decision-making process. Decision making is primarily the purview of management, and is defined as the ongoing process of evaluating alternatives and their respective outcomes (Harrison 1996). In contrast to this process, strategic decision making is complex. It involves understanding the organisation's relationship with the environment, utilising the organisation in its entirety as the unit of analysis, and encompassing all functions yet constrained by costs and operational activities; it is a long-term process in relation to its consequences (Harrison 1996).

The fact that a decision is "strategic" in nature, and acknowledges the broad interconnectedness of the landscape, does not necessarily mean that the decision will be effective or successful. Such decisions just as frequently prove to be unsuccessful as successful. The very nature of complexity with regard to its emergent and adaptive properties means that accurate predictions are extremely problematic. This has a direct influence on the reliability of strategic decision making in the organisation, and it therefore becomes more critical to understand the underlying constructs that enable strategic decision making. The concept of strategic decision making is used throughout this article to illuminate the construct of complexity through leaders in the workplace. The ability to think with complexity and the ability to think strategically are concepts that are used interchangeably throughout this article. The intention of the research was to understand the construct that underlies the ability to think with complexity, where complexity is a multifaceted system of compounded interactions through time.

While it has been established that strategic decision making is critical to strategic leadership, there has been limited insight into what drives this ability. Many researchers acknowledge that intelligence, emotion and personality play a role in strategic decision making. However, much of this research looks at the process of decision making in broad terms (Lim 2012); decision-making styles (Ahmed et al 2012); neurological drivers of decision-making (Venkatraman & Huettel 2012); very specific aspects of personality (e.g. optimism bias) on decision making (Bracha & Brown 2012); and individual characteristics as they relate to leader effectiveness (Hoffman et al 2011).

In studying top management teams, some theorists have attempted to identify the characteristics of teams that lean towards making successful strategic decisions (Carmeli, Friedman & Tishler 2013). Team resilience was identified as a key factor in this regard, where resilience was defined as both the ability to cope with complexity and the capacity to adapt to changing circumstances (Carmeli et al 2013). However, there is still a paucity of exploratory research that has explicitly looked at the relationship between individual leaders and the capacity to think strategically.

Some empirical theorists argue that intelligence plays a role in the ability to think strategically, and hence assessing intelligence is important in selecting leaders (Morgan 2006). However, previous unpublished organisational psychology research discovered no correlation between intelligence, as measured by the Weschler Adult Intelligence Scale, and the ability to think strategically, as measured by Stamp's Career Path Appreciation (Comaroff 2012). It is suggested that if intelligence is not correlated with the ability to think strategically, then personality may play a role in predicting this ability.

2.3 The role of personality

Gelissen and De Graaf (2006) sought insights into the relationship between the big five personality traits and career success, as determined by progressively increasing income and status attainment. The results of their research failed to find a relationship for four of the five personality traits; only emotional stability showed a significant relationship with income attainment (Gelissen & De Graaf 2006). The research undertaken for this article was a further exploration of the dimensions of personality, specifically in terms of their relationship with the ability to think strategically.

Muehlfeld et al (2011) suggested that personality is most relevant when there is scope for discretion in decision making. They specifically measured the relationship between locus of control and "Type A" behaviours on team change decisions (Muehlfeld et al 2011). While the construct of "change" implies some dynamic thinking, it fails to explicitly account for the ability to think with complexity and explain how this is related to individual personality traits.

A review of the literature did not uncover research that specifically explored the dimensions of personality and its behavioural manifestations against a valid and reliable assessment that evaluates actual ability to carry out complex thinking, rather than merely decision making or performance. Therefore, the results of this research have important implications for gaining a deeper understanding of the relationship between personality and the ability to think strategically, as well as reshaping an organisation's talent management approach to identifying and selecting leaders who are able to fulfil the decision-making requirements of senior roles. This research sets out to explore the specific relationship between multidimensional personality factors and the ability to think with complexity.

3 Methodology

A quantitative approach was utilised in which secondary, archival data were collected from a South African subsidiary of a multinational beverage organisation. This organisation achieved consistent growth over the five years preceding the time of writing, with an average share price growth of 20% per annum (London South East 2013), illustrating success and resilience in the changing economic landscape. Secondary data are defined as data collected for another purpose; there are both

advantages and disadvantages to the use of secondary data (Saunders & Lewis 2012). This is an unobtrusive method of data collection, which is particularly important when analysing sensitive factors like personality traits. According to Saunders and Lewis (2012), the major disadvantages of utilising secondary data are that they may only partially meet research needs, they may not be value-neutral and there is no control over the quality of the information. Although cognisance must be taken of these shortcomings, the data utilised for this research were collected by certified psychologists, in accordance with the guidelines of the South African Psychological Association and the Health Professions Council.

The sampling frame was based on two specific criteria, namely:

- individuals in a senior management or executive role within the purposively selected organisation, and
- individuals who had completed the two instruments required in the study (CPI-434 and CPA).

The number of individuals in senior and executive management positions in the target company was 537. Of this number, 256 had also completed the CPI-434 and CPA. Thus, the complete sampling frame of 256 senior managers and executives was used in the study. All employees forming the sample gave their consent for the company to store and utilise their scores at the time when the assessments were undertaken. In turn, the organisation gave permission for these scores to be utilised for the purposes of this research, on condition that the original criteria applicable to consent for the assessment were respected. These criteria ensured that confidentiality was afforded to all individuals.

3.1 Research instruments

Two instruments were used in the original collection of the data to be leveraged for this research: the California Psychological Inventory (CPI) and the Career Path Appreciation (CPA). The additional secondary data pertaining to the level of the job were acquired from the organisation's talent management records. These data included the current organisational grade, age, function, gender and race.

The California Psychological Inventory-434 (CPI) is a self-report assessment measuring both personality and behaviour through 20 "folk concepts" of personality that are aggregated into four dimensions, as indicated in Table 1 (Gough & Cook 1996). The CPI was authored by Gough in 1956 and was reviewed and revised in 1995 (Occupational Psychology Services 2000). The scoring for this assessment is recorded as a percentile for each concept, and forms the basis of the raw data for this study.

The second instrument utilised in collecting these data was the Career Path Appreciation (CPA). The CPA measures current level of capability (CLC), future potential capability (FPC), and an individual's preferred approach to work (style) (Stamp 1989). For the purposes of this study, only data related to FPC were utilised, as they relate directly to the capacity to think with complexity in the future. Complexity was defined as the ability to manage in a system where multiple independent agents interact with each other and change in numerous ways through time (Stamp 1993).

While the CPA is utilised globally, it is particularly favoured by South African organisations (Kruger 2013). To achieve credibility in this regard, it is important that the CPA is proven to be culturally fair. Unpublished studies undertaken by Kitching (2005) confirmed no significant differences between employees with varied cultural backgrounds and experiences. Further studies were undertaken by the Brunel Institute for Organisation and Social Studies (BIOSS), the organisation that owns and maintains

the CPA. BLOSS published positive results confirming inter-rater reliability, test-retest reliability and predictive validity (BLOSS 2007).

Table 1
CPI-434 Dimensions and scales

Dimensions	Interpersonal style	Personal values and social adjustments	Achievement oriented behaviour	Role preference
Scales	<ul style="list-style-type: none"> • Dominance • Capacity for status • Sociability • Social presence • Self acceptance • Independence • Empathy 	<ul style="list-style-type: none"> • Responsibility • Socialisation • Self control • Good impression • Communality • Well-being • Tolerance 	<ul style="list-style-type: none"> • Achievement via conformance • Achievement via independence • Intellectual efficiency 	<ul style="list-style-type: none"> • Psychological-mindedness • Flexibility • Femininity/masculinity

Source: Gough and Cook (1996)

3.2 Research question and hypotheses

The acknowledgement of the rapidly changing environment and the recognition of complexity as fundamental to the new world of work clearly demonstrate the need to advance leadership theory by gaining a deeper understanding of the potential to think strategically. In addition, as corporate and talent strategies are inextricably linked, the current talent management challenge is to place greater emphasis on employees and positions that have the greatest distinctive impact on business strategy (McDonnell 2011).

It is therefore important to understand which personality characteristics are related to the ability to think with complexity. The research question postulates that all individual characteristics, specifically personality traits, are related to the potential to manage complexity or think strategically. In order to test this, 20 hypotheses based on the 20 CPI-434 scales were tested:

H1-20₀: Personality factors 1-20 are not related to FPC.

H1-20₁: Personality factors 1-20 are related to FPC.

The purpose of establishing whether there is a relationship between personality factors and an ability to think strategically is to develop a profile of leaders who have the capacity to think and act strategically to further the organisation's agenda.

3.3 Data collection

Once the 256 individuals that met the requirements of the sampling frame had been identified, their employee records were retrieved and identified through their employee number. These records were then manually transferred onto an Excel spreadsheet containing their percentile scores for each of the 20 folk concepts of the CPI-434, and the FPC scores from the CPA. Biographical data was then retrieved and included: age, gender, ethnic origin, organisation functional area, and Hay job grade. To ensure individual confidentiality, all employee numbers were removed and replaced with a single chronological identifier: 1, 2, 3 ... 256.

The data were then codified to convert categorical data reflecting gender and ethnic origin into a numerical score (Zikmund 2003) and the FPC scores were converted into ordinal data. The final set of data included the percentile scores from the personality assessment. As the percentile scores were already displayed as numerical, discrete data, no conversion or codification was necessary.

The study attempted to determine whether a relationship existed between personality and the capacity to think strategically. Twenty hypotheses were tested to determine whether a relationship between the individual factors of the CPI-434 and FPC was present. The Pearson's correlation coefficient (r) was utilised to examine the correlation between these variables. A regression analysis was then performed to determine which of the personality factors significantly predicted the FPC scores. The analysis was reported by classifying the personality factors into four classes as defined by Gough and Cook (1996).

4 Analysis of the data

4.1 FPC scores

The FPC scores were subjected to a frequency analysis to obtain a holistic view of the data. The majority (43%) were rated at FPC 4. This was followed by 27.3% of the sample at FPC 3; 23.4% at FPC 5; 5.1% at FPC 6; 0.8% at FPC 2 and 0.4% at FPC 7.

4.2 The CPI-434 personality factors

Further descriptive analysis was performed on the personality factors, indicating negative skewness on all factors, with the exception of Flexibility and Femininity/Masculinity, as indicated in Table 2.

Table 2
Descriptive analysis of personality factors

	Range	Min	Max	Mean	FPC	Std deviation	Skewness	
							Statistic	Std error
Dominance (Do)	30	50	80	66.055	69	4.9607	-0.616	0.152
Capacity for status (Cs)	37	43	80	62.934	62	6.3326	-0.271	0.152
Sociability (Sy)	32	40	72	60.676	64	6.3209	-1.014	0.152
Social presence (Sp)	45	31	76	58.727	61	7.5550	-0.631	0.152
Self-acceptance (Sa)	36	40	76	61.238	62	5.9410	-0.454	0.152
Independence (In)	30	45	75	62.637	61	5.2548	-0.409	0.152
Empathy (Em)	44	38	82	61.918	64	8.3842	-0.173	0.152
Responsibility (Re)	36	41	77	61.793	65	6.7068	-0.344	0.152
Socialisation (So)	37	38	75	58.914	60	5.9376	-0.424	0.152
Self-control (Sc)	43	30	73	56.652	59	8.6849	-0.488	0.152
Good impression (Gi)	48	36	84	64.480	67	9.2989	-0.376	0.152
Communality (Cm)	36	29	65	55.359	60	6.3217	-0.95	0.152
Well being (Wb)	32	40	72	60.164	65	4.5929	-0.939	0.152
Tolerance (To)	37	38	75	60.160	63	7.7955	-0.531	0.152
Achievement via conformance (Ac)	27	48	75	64.137	68	6.2441	-0.506	0.152
Achievement via independence (Ai)	33	45	78	60.430	61	6.3803	-0.135	0.152
Intellectual efficiency (Ie)	51	24	75	60.547	65	6.4496	-1.04	0.152
Psychological mindedness (Py)	49	29	78	60.406	62	7.4890	-0.714	0.152
Flexibility (Fx)	46	30	76	51.371	49	8.3068	0.039	0.152
Femininity/masculinity (F/M)	53	15	68	44.582	47	9.7900	0.012	0.152

With the exception of Femininity/Masculinity, the mean percentile scores are all above the 50th percentile, demonstrating a profile of individuals who are self-confident, have high levels of responsibility and self-control, and high levels of achievement-oriented behaviour. A Cronbach's Alpha coefficient of 0.808 was obtained, demonstrating a high level of internal consistency, thus providing a strong indication that the instrument is a reliable measure of the construct of Personality.

To obtain a detailed understanding of this, 20 hypotheses were tested, one for each personality factor. Each table in this analysis includes the personality factors grouped into their class, as defined by Gough and Cook (1996). This grouping enabled a detailed view of the correlations within each class, which provided interesting additional insights regarding the FPC.

4.3 Interpersonal Style (Class 1) correlations

Table 3 illustrates the extent to which individual personality factors within Class 1 are correlated with each other. A range of significant correlations from .18 to .65 is evident.

Table 3
Correlation matrix of Class 1 personality factors and FPC

		FPC	Do	Cs	Sy	Sp	Sa	In	Em
FPC	Pearson Corr.	1							
	Sig. (2-tailed)								
Do	Pearson Corr.	.291**	1						
	Sig. (2-tailed)	.000							
Cs	Pearson Corr.	.182**	.372**	1					
	Sig. (2-tailed)	.004	.000						
Sy	Pearson Corr.	.199**	.479**	.519**	1				
	Sig. (2-tailed)	.001	.000	.000					
Sp	Pearson Corr.	.248**	.341**	.444**	.654**	1			
	Sig. (2-tailed)	.000	.000	.000	.000				
Sa	Pearson Corr.	.222**	.474**	.349**	.569**	.508**	1		
	Sig. (2-tailed)	.000	.000	.000	.000	.000			
In	Pearson Corr.	.271**	.450**	.317**	.225**	.293**	.298**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		
Em	Pearson Corr.	.274**	.386**	.522**	.521**	.536**	.420**	.205**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.001	
* Correlation is significant at the 0.05 level (2-tailed)									
** Correlation is significant at the 0.01 level (2-tailed)									

H₀: Dominance (Do) is not related to FPC $\rho = 0$.

H₁: Dominance (Do) is positively correlated with FPC $\rho > 0$.

As indicated in Table 3, Dominance is positively correlated with FPC where $r = 0.29$, $p < 0.001$, and the null hypothesis is thus rejected. This confirms that leadership ability, dominance and willingness to play a leadership role bear a significant relationship to the ability to think strategically. Dominance is the most strongly correlated with FPC within the Class 1 group of personality factors.

H₀: Capacity for Status (Cs) is not related to FPC $\rho = 0$.

H₂: Capacity for Status (Cs) is positively correlated with FPC $\rho > 0$.

Capacity for Status is positively correlated with FPC where $r = 0.18$, $p < 0.01$, and the null hypothesis is rejected. This signifies that ambition, confidence, awareness of the value of status and success bear a significant relationship to the ability to think strategically. However, this relationship shows the weakest correlation of all Class 1 factors with FPC.

H₀: Sociability (Sy) is not related to FPC $\rho = 0$.

H₃: Sociability (Sy) is positively correlated with FPC $\rho > 0$.

Sociability is positively correlated with FPC where $r = 0.20$, $p < 0.01$, and the null hypothesis is rejected. Comfort in social situations, self-confidence and enjoyment of attention bear a significant, positive relationship to the capacity for complex thinking.

H₀: Social Presence (Sp) is not related to FPC $\rho = 0$.

H₄: Social Presence (Sp) is positively correlated with FPC $\rho > 0$.

Social Presence is positively correlated with FPC where $r = 0.25$, $p < 0.001$, and the null hypothesis is thus rejected. This demonstrates that feelings of self-confidence, personal worth, self-assurance and joy in new experiences are significantly correlated with the ability to think strategically. The enjoyment of new experiences is particularly important, as it relates to the ability to embrace change, an important dimension of the ability to manage within the evolving landscape.

H₀: Self-Acceptance (Sa) is not related to FPC $\rho = 0$.

H₅: Self-Acceptance (Sa) is positively correlated with FPC $\rho > 0$.

Self-Acceptance is positively correlated with FPC where $r = 0.22$, $p < 0.001$. As such the null hypothesis is rejected, indicating that the ability to think strategically is significantly correlated with comfort in dealing with others and a sense of personal worth.

H₀: Independence (In) is not related to FPC $\rho = 0$.

H₆: Independence (In) is positively correlated with FPC $\rho > 0$.

Independence is positively correlated with FPC where $r = 0.27$, $p < 0.001$, and the null hypothesis is rejected. While a significant correlation was found, this was to be expected as it measures an individual's resoluteness, perseverance, and self-sufficiency.

H₀: Empathy (Em) is not related to FPC $\rho = 0$.

H₇: Empathy (Em) is positively correlated with FPC $\rho > 0$.

Empathy is positively correlated with FPC and is significant where $r = 0.27$, $p < 0.001$, and the null hypothesis is rejected. This personality factor measures the ability to perceive the experiences of others, as well as insightfulness and self-sufficiency. It was also thought that this ability to take cognisance of a dimension outside of the self would show a much stronger correlation with the ability to think strategically, where taking cognisance of the environment and the individual's interdependence with the environment is required. However, according to Saunders and Lewis (2012), this is a statistically weak correlation.

A linear regression established that among the Interpersonal Style factors, Dominance, Independence and Empathy could significantly predict FPC – $F(3,251) = 13.118$, $p < 0.05$. These factors accounted for 12.5% of the explained variability in FPC. Predicted FPC = $93.753 + 0.075$ (Dominance) + 0.082 (Independence) + 0.054 (Empathy).

4.4 Personal Values and Social Judgment (Class 2) Correlations

Table 4 illustrates the correlations between Class 2 personality factors and FPC, as well as the extent to which individual personality factors within Class 2 are correlated with each other. Class 2 factors demonstrate FPC rate positive correlations and weak negative correlations between factors, most of which are significant.

Table 4
Correlation Matrix of Class 2 personality factors and FPC

		FPC	Re	So	Sc	Gi	Cm	Wb	To
FPC	Pearson Corr.	1							
	Sig. (2-tailed)								
Re	Pearson Corr.	.096	1						
	Sig. (2-tailed)	.126							
So	Pearson Corr.	-.038	.352**	1					
	Sig. (2-tailed)	.546	.000						
Sc	Pearson Corr.	-.006	.488**	.319**	1				
	Sig. (2-tailed)	.930	.000	.000					
Gi	Pearson Corr.	.051	.529**	.310**	.765**	1			
	Sig. (2-tailed)	.415	.000	.000	.000				
Cm	Pearson Corr.	-.058	-.082	.107	-.132*	-.171**	1		
	Sig. (2-tailed)	.356	.190	.086	.034	.006			
Wb	Pearson Corr.	.150*	.426**	.230**	.494**	.525**	.013	1	
	Sig. (2-tailed)	.017	.000	.000	.000	.000	.830		
To	Pearson Corr.	.178**	.581**	.208**	.487**	.455**	-.109	.506**	1
	Sig. (2-tailed)	.004	.000	.001	.000	.000	.082	.000	

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

H₀: Responsibility (Re) is not related to FPC $\rho = 0$.

H_a: Responsibility (Re) is positively correlated with FPC $\rho > 0$.

A correlation of $r = 0.10$ was found between Responsibility and FPC, but this relationship was not seen to be significant at $p < 0.05$. The Responsibility factor refers to acceptance of social rules, dependability, responsibility and the capacity for self-improvement. It was thought that this capacity for self-improvement would correlate with the ability to think strategically, as it indicates some skill in managing the change required in complex environments. However, the outcome was not significant, resulting in a failure to reject the null hypothesis.

H₀: Socialisation (So) is not related to FPC $\rho = 0$.

H_a: Socialisation (So) is positively correlated with FPC $\rho > 0$.

A negative correlation between Socialisation and FPC of $r = -0.04$ was found; however, this relationship was not significant at $p < 0.05$ and therefore the null hypothesis was not rejected. It was thought that there would be a positive correlation between Socialisation and the ability to think strategically, as it refers to social maturity, integrity and morality, which were presumed to be associated with the ability to think in a strategic environment. On deeper analysis, it was noted that the items in Class 2 of the CPI-434 measured the degree to which an individual is conventional and accommodating versus the ability to take risks. With this in mind, one would expect a slightly negative correlation, as the ability to take risks is integral to making decisions in unpredictable environments.

H₀: Self-control (Sc) is not related to FPC $\rho = 0$.

H₁₀: Self-control (Sc) is negatively correlated with FPC $\rho < 0$.

A negative correlation between Self-control and FPC of $r = -0.01$ was found, but this relationship was not significant at $p < 0.05$. Self-control refers to self-regulation and freedom from impulsivity, and it was supposed that some impulsivity or spontaneity would be required in order to operate in the dynamic and evolving environment. While the outcome acknowledges a weak negative correlation, the lack of significance results in failure to reject the null hypothesis.

H₀: Good Impression (Gi) is not related to FPC $\rho = 0$.

H₁₁: Good Impression (Gi) is positively correlated with FPC $\rho > 0$.

Good Impression is positively correlated with FPC where $r = 0.05$, but this correlation is not significant at $p < 0.05$. This factor describes the ability to create a favourable impression, along with concern about how others react to the individual's behaviour. It was thought that this awareness outside the self would enable individuals to take cognisance of people and events outside themselves, as required in complex environments. However, this correlation is extremely weak and is not significant, resulting in failure to reject the null hypothesis.

H₀: Communality (Cm) is not related to FPC $\rho = 0$.

H₁₂: Communality (Cm) is positively correlated with FPC $\rho > 0$.

Communality is the degree to which reactions and responses correspond to the norm pattern established for the inventory (Gough & Cook 1996). Given the nature of this factor, it was expected that no correlation would be found. However, some of the items in this class were intended to measure optimism and morale, so it was hypothesised that a positive correlation may be evident. Conversely, a negative correlation was found where $r = -0.06$. This negative correlation was not significant at $p < 0.05$, and therefore the null hypothesis was not rejected.

H₀: Well-being (Wb) is not related to FPC $\rho = 0$.

H₁₃: Well-being (Wb) is positively correlated with FPC $\rho > 0$.

Well-being is positively correlated with FPC where $r = 0.15$; this is statistically significant at $p < 0.05$ and the null hypothesis was therefore rejected. The ability to withstand stress and enjoy good relationships and overall happiness was expected to correlate positively with the ability to manage the pressures of change that are required in managing complexity.

H₀: Tolerance (To) is not related to FPC $\rho = 0$.

H₁₄: Tolerance (To) is positively correlated with FPC $\rho > 0$.

The results indicated a positive correlation of $r = 0.18$, $p < 0.05$, and the null hypothesis was therefore rejected. This outcome was expected since this trait describes the belief in fairness, integrity and resourcefulness.

A linear regression also established that only tolerance could significantly predict FPC in Class 2, $F(1,253) = 7.861$, $p < 0.05$. Tolerance accounted for 2.6% of the explained variability in FPC. Predicted FPC = $103.759 + 0.057$.

4.5 Achievement-oriented behaviour (Class 3) correlations

Table 5 illustrates the correlations between Class 3 personality factors and FPC, as well as the extent to which individual personality factors within Class 3 are correlated with each other. A range of significant correlations from .20 to .52 is evident within Class 3.

Table 5
Correlation matrix of Class 3 personality factors and FPC

		FPC	Ac	Ai	le
FPC	Pearson Corr.				
	Sig. (2-tailed)				
Ac	Pearson Corr.	.055			
	Sig. (2-tailed)	.379			
Ai	Pearson Corr.	.303**	.196**		
	Sig. (2-tailed)	.000	.002		
le	Pearson Corr.	.243**	.322**	.523**	
	Sig. (2-tailed)	.000	.000	.000	
* Correlation is significant at the 0.05 level (2-tailed)					
** Correlation is significant at the 0.01 level (2-tailed)					

H₀: Achievement via Conformance (Ac) is not related to FPC $\rho = 0$.

H₁₅: Achievement via Conformance (Ac) is correlated with FPC $\rho \neq 0$.

Achievement via Conformance is positively correlated with FPC at $r = 0.06$, although this result is not statistically significant at $p < 0.05$. The direction of correlation was initially unclear, as this factor measures a dichotomous dimension with regard to the ability to think strategically. On the one hand, it measures motivation to achieve within a structured environment, which was thought to correlate negatively with the ability to think strategically. On the other hand, it also measures an individual's orientation towards the future, which was thought to correlate positively with the ability to manage strategically. As the result was not statistically significant, the null hypothesis cannot be rejected.

H₀: Achievement via Independence (Ai) is not related to FPC $\rho = 0$.

H₁₆: Achievement via Independence (Ai) is positively correlated with FPC $\rho > 0$.

Achievement via Independence is positively correlated with FPC at $r = 0.30$, $p < 0.001$. This is the second highest correlation of all personality factors across all four classes. This factor denotes the motivation to achieve superior performance in settings requiring independent planning and effort. This orientation towards independent achievement is clearly related to the ability to manage in a changing and unpredictable environment, and the null hypothesis is thus rejected.

H₀: Intellectual Efficiency (le) is not related to FPC $\rho = 0$.

H₁₇: Intellectual Efficiency (le) is positively correlated with FPC $\rho > 0$.

Intellectual Efficiency refers to the individual's self-assessment of their intellectual resources and endurance. It was thought that this access to cognitive resources would be positively correlated with the ability to think strategically, and this was borne out where $r = 0.24$, $p < 0.001$. As such, the null hypothesis is rejected.

A linear regression established, however, that only Achievement via Independence could significantly predict FPC in Class 3, $F(1,253) = 25.527$, $p < 0.05$. This factor accounted for 8.8% of the explained variability in FPC. Predicted FPC = $99.897 + 0.121$ (Achievement via independence).

4.6 Role preference (Class 4) correlations

Table 6 sets out the correlations between Class 4 personality factors and FPC, as well as the extent to which individual personality factors within Class 4 are correlated with each other. A range of positive and negative correlations exist between these factors,

although the relationship between Femininity/Masculinity and Flexibility does not appear to be statistically significant.

H₀: Psychological-mindedness (Py) is not related to FPC $\rho = 0$.

H₁₈: Psychological-mindedness (Py) is positively correlated with FPC $\rho > 0$.

Psychological-mindedness is positively correlated with FPC where $r = 0.21$, $p < 0.01$. This is a statistically significant result and the null hypothesis is rejected. This factor refers to the degree and extent of interest in inner needs, motives and the experiences of others. This perceptive and analytical attribute is aligned with the ability to manage the interdependencies of a complex environment.

Table 6
Correlation matrix of Class 4 personality factors and FPC

		FPC	Py	Fx	F / M
FPC	Pearson Corr.	1			
	Sig. (2-tailed)				
Py	Pearson Corr.	.211**	1		
	Sig. (2-tailed)	.001			
Fx	Pearson Corr.	.313**	.282**	1	
	Sig. (2-tailed)	.000	.000		
F / M	Pearson Corr.	-.060	-.171**	.023	1
	Sig. (2-tailed)	.340	.006	.717	
** Correlation is significant at the 0.01 level (2-tailed)					

H₀: Flexibility (Fx) is not related to FPC $\rho = 0$.

H₁₉: Flexibility (Fx) is positively correlated with FPC $\rho > 0$.

Flexibility manifests the highest positive correlation with FPC at $r = 0.31$, $p < 0.001$. This is a statistically significant result and the null hypothesis is rejected. Flexibility describes tolerance for ambiguity and variety, as well as the ability to admit bias and refrain from prejudging. This is clearly aligned with the ability to manage in the ambiguous and unpredictable environment required of strategic thinking.

H₀: Femininity/Masculinity (F/M) is not related to FPC $\rho = 0$.

H₂₀: Femininity/Masculinity (F/M) is correlated with FPC $\rho \neq 0$.

Femininity/Masculinity refers to an individual's interest in and capacity for patience and sensitivity. It was thought that sensitivity might correlate with the ability to think strategically, although the precise direction was uncertain. The results indicate that Femininity/Masculinity is negatively correlated with FPC at $r = -0.06$ but this outcome is not statistically significant at $p < 0.05$. As such, the null hypothesis may not be rejected.

A linear regression also established that both Psychological Mindedness and Flexibility could significantly predict FPC in Class 4, $F(2,252) = 15.363$, $p < 0.05$. These factors accounted for 10.2% of the explained variability in FPC. Predicted FPC = $100.238 + 0.045$ (Psychological Mindedness) + 0.083 (Flexibility).

5 Discussion of results

5.1 Individual characteristics related to complexity

The outcomes of the 20 hypotheses tested manifested interesting insights into the relationship between personality and future capacity to think strategically. While the

literature review established that several studies had been undertaken to determine whether a relationship existed between certain individual characteristics and leadership (Hoffman et al 2011), and personality and strategic decision making (Ahmed et al 2012; Bracha & Brown 2012), our findings illustrate that a definitive relationship also exists between individual personality traits and the potential to think strategically. This ability to think strategically is thought to underlie both strategic decision-making and the leadership style required in today's dynamic climate.

While all seven personality factors in Class 1 illustrated weak to moderate correlations with FPC, it was found that only Dominance, Independence and Empathy could significantly predict FPC. Dominance showed the strongest correlation with both FPC and the ability to predict it within Class 1, demonstrating that leadership ability, dominance and willingness to assume leadership roles are related to the ability to think strategically. Harrison (1996) describes the executive level as consisting of those people who make strategic decisions. These are the individuals who navigate the company through the changing competitive environment, and so it stands to reason that these navigators enjoy high levels of Dominance and display leadership abilities.

Independence measures an individual's resoluteness, perseverance and self-sufficiency (McAllister 1996). This descriptor aligns with the modernist theories that define leadership as a characteristic of the individual (Cardella 2012). In addition, post-modern Complexity Leadership Theory builds on this concept to integrate leadership as a function of the interaction between people and groups (Marion, McKelvey & Uhl-Bien 2007). From this perspective, it is evident that Empathy would have a role to play in strategic leadership. In keeping with the views of Yorks and Nicolaides (2012), who propose that insight is a key determinant in strategic thinking, Empathy evaluates the ability to perceive the experiences of others, and includes insightfulness, confirming that a relationship exists between Empathy and the ability to manage complexity.

Belief in fairness, integrity and the ability to be resourceful are measured through the Tolerance personality factor. This was the only factor in Class 2 capable of predicting the ability to think strategically. Individuals who rate high on Tolerance can be expected to be open and trusting and display an unbiased attitude (McAllister 1996). If the new executive leadership theories require superior interpersonal skills in order to work within matrixed environments, then Tolerance is clearly related to this ability.

Class 3 measures achievement orientation and contains two factors that are significantly correlated with strategic thinking: Achievement via Independence and Intellectual Efficiency. However, only the former was found to be a significant predictor of FPC. Achievement via independence illustrates self-motivation, ambition and superior planning traits, and Intellectual Efficiency is characterised by the traits of versatility, a spirit of enterprise, eagerness to learn and intellectual confidence (McAllister 1996). This creates a picture of driven and targeted adaptability that is required in the consistently changing contexts that make up the new world of work. Confidence in one's intellectual rigour is important in strategic decision making. Indeed, Harrison (1996) claims that intellectual understanding of the organisation in relation to the environment is required, where the environment is taken to encompass all functions.

The traits curiosity and open-mindedness are characteristics of Psychological Mindedness, whereas spontaneity, variety and change are synonymous with Flexibility (McAllister 1996). Both these factors were found to significantly predict the ability to think strategically. It has been established that Complex Adaptive Systems (CAS) interact with the environment in an interdependent manner, whereas nonlinear

feedback results in adaptation and emergent behaviours (Schneider & Somers 2006). This critical notion of continuously changing patterns lies at the very heart of complex thinking. As such, factors high in variety and open-mindedness are critically related to the ability to manage this complexity.

5.2 Individual characteristics not related to complexity

Of particular interest are those personality factors that did not show a significant correlation with the ability to think strategically. Class 2 manifested the largest number of unrelated variables. Although each factor enjoys practical behavioural descriptors, it is important to note that in the construction of the test, Good Impression was created as the '*faking good*' indicator, Well-being was created as the '*faking bad*' indicator and Communitarity measured the '*random responses*' (McAllister 1996). For this reason, it was unsurprising that no significant correlation was uncovered.

Other unsurprising findings included the lack of significant correlation with Achievement via Conformance and Femininity/Masculinity. The adoption of social norms and structured, methodical and disciplined behaviour is characteristic of Achievement via Conformance (McAllister 1996). It is self-evident that individuals who require a structured environment would not thrive in complex situations that, by their nature, are unstructured and open-ended systems (Schneider & Somers 2006). Femininity/Masculinity primarily measures vulnerability and interpersonal sensitivity (McAllister 1996) and was negatively correlated with strategic thinking. However, this correlation was extremely weak and was not seen as significant.

It may be concluded from these findings that although personality characteristics certainly have a role to play in the ability to think strategically, not all traits were correlated. This introduces the notion that if not all traits are related, then one's ability to think strategically is either driven by a small number of defined characteristics, or there may be a construct beyond personality that contributes to complex thinking.

5.3 The underlying constructs of strategic thinking

The outcome of the tests to determine whether there was a correlation between personality factors and FPC, and which of the personality factors significantly predicted FPC, may be aligned with the leadership functions of enabling and adaptive leadership identified by Marion et al (2007). In addition, the findings serve to augment this paradigm by contributing specific personality factors and characteristic behaviours to further describe the requirements of each leadership function.

5.3.1 Adaptive leadership

Flexibility, Achievement via Independence and Psychological Mindedness are all aligned to Marion et al's (2007) description of *adaptive leadership*, thereby reinforcing this definition through empirical research. The interactions of CAS attempt to find the equilibrium between the organisation and the environment, resulting in the necessity for evolving and emergent behaviours from leaders (Marion et al 2007). Creativity and flexibility are key criteria in this leadership function, as executives shift from solving technical problems to utilising new knowledge that is impactful in resolving emergent problems (Marion et al 2007).

McAllister (1996) explains the Flexibility factor with reference to the extent to which individuals are flexible, adaptable and dynamic in their thinking, behaviour and temperament. This factor includes a measure of the ability to tolerate ambiguity and uncertainty, which is a critical factor when working at the level of *strategic development*

(Stamp 1993). The unpredictability of the environment was emphasised in Pryor and Bright's (2007) chaos theory of careers. Comfort with the unpredictable and unknown requires a level of comfort in adapting to changing requirements. The key tenet of Flexibility is openness to considering and experiencing alternative perspectives. This intellectual suppleness enables creativity and the development of innovative inspirations. This is a requirement of *adaptive leadership*.

In keeping with this ability to embrace ambiguity is the inclusion of Achievement via Independence as integral to this leadership function. In addition to goal-oriented planning, this personality factor manifests a high tolerance of ambiguity, to the extent that structured and stringent environments are rejected. Creativity and originality are valued, and such individuals are highly ambitious, with a wide variety of interests (McAllister 1996). This creativity and the rejection of the conventional are well aligned to the transformational requirements of the CAS context.

Psychological Mindedness is also aligned with the *adaptive leadership* function. This factor describes a person's ability to concentrate, persevere with long-term goals and effectively deal with ambiguity (McAllister 1996), all the qualities one would expect in a strategic leader. Rather than solving technical problems, adaptive leadership requires problem solving that utilises new learning and new patterns of behaviour (Marion et al 2007). Individuals high in Psychological Mindedness are excellent at managing the abstract. They avoid concrete problem solving and prefer to discover new insights through conceptual problem solving. Although CLT takes cognisance of the interdependencies between people which give rise to collective solutions, individuals high in Psychological Mindedness are seen as individualistic and independent minded (McAllister 1996).

A profile of a creative, flexible, abstract thinker emerges, along with a highly independent and goal-oriented leader. This notion of independence and individualism provides new insights into the CLT *adaptive leadership* function.

5.3.2 *Enabling leadership*

The ability to drive collaboration and interdependencies is fundamental to *enabling leadership*. The purpose of this function is to deconstruct the adaptive and administrative functions to enable a supporting environment for the delivery of goals (Marion et al 2007). Dominance and Self-Acceptance were found to be aligned with this description.

As previously discussed, individuals with high Dominance are able to take charge of situations effectively, and direct and develop others to achieve goals (McAllister 1996). This leadership ability enables individuals to assume a driving role that directs teams towards the collaborative attainment of goals. However, McAllister (1996) notes that these individuals, although they perform an enabling function, also display uncompromising behaviours. It may not be for the faint-hearted, but this aversion to compromise may well be what ensures the realisation of objectives.

Individuals high in Self-Acceptance tend to be seen as secure and sure of themselves. They have a high sense of self-worth, self-criticism and an inordinate capacity for independent thinking and action (McAllister 1996). Although there is a high penchant for individualism, these individuals are also considered to be very sociable and talkative, which suggests that this individualism and need for social interaction are interdependent. The strong interpersonal behaviours may enable the collaboration of teams, and the robust independence of thought may enable problem solving within uncharted contexts.

The *enabling leader* can therefore be described as a goal-directed leader who is uncompromising in driving outputs, yet able to drive collaboration through others. A key tenet appears to be the ability of enabling leaders to approach problems through independent thinking. This adds a level of independence to the profile of the strategic leader that is not fully explored in Marion et al's (2007) model. Although CLT describes leaders as individuals who are catalysts for action, Plowman, Solansky, Beck, Baker and Kulkarni (2007) suggest that these individuals disrupt existing patterns by creating conflict within uncertain environments. For this reason, strategic leaders appear to require the independence to create this conflict, and the collaborative skills to rally their teams.

6 Conclusion and recommendations

According to Heifetz et al (2009), leadership is in a permanent state of crisis where the emergent context requires increasingly more complex problem solving in order to realise success. The major findings in this study throw light on the underlying constructs of this ability to manage emergent complexity. Marion et al's (2007) formulation of Complexity Leadership Theory defines the leadership functions required to manage in this new environment. However, this theory falls short in identifying the factors or underlying constructs that enable these functions in a manner that can provide practical insight to organisations.

The consolidated findings identified Dominance, Flexibility, Achievement via Independence, Psychological Mindedness and Self-Acceptance as key contributors to the ability to think strategically, and thereby manage complexity. Complexity was defined as a system in which multiple independent agents interact with each other and change in numerous ways through time (Stamp 1993). This research concludes that in order for a leader to manage this complexity, high levels of these five personality factors must be present.

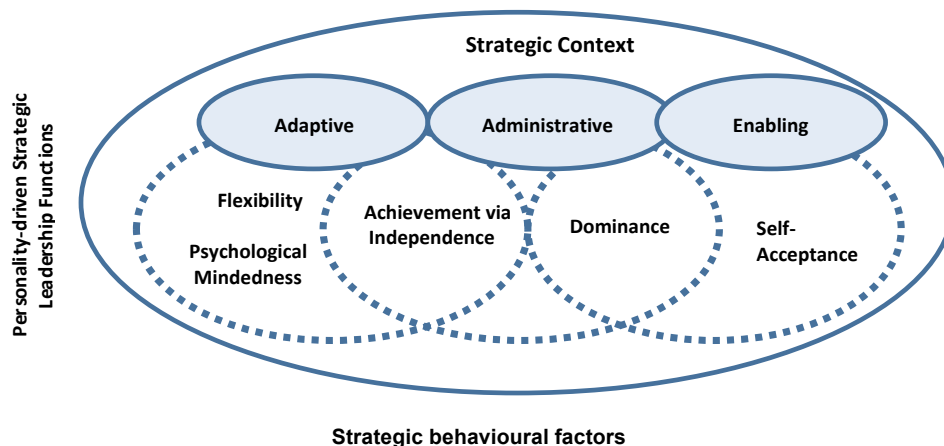
6.1 The strategic leadership profile

The findings are best illustrated through a diagrammatic representation as indicated in Figure 1. This model begins with the encompassing circle denoting the fluid strategic context characterised by the emergent properties that are consistent with the evolution of an organisation's competitive environment over time. Within this context are the *adaptive*, *administrative* and *enabling* leadership functions of CLT (Marion et al (2007)). These leadership functions combine the internal dynamics of organisations with the external constraints in the environment. This pattern entrenches the strategic leader within the complex interaction of contextual forces.

The ability to realise and attain these leadership functions is dependent on particular personality factors. To achieve the flexibility and creativity required of the *adaptive* leadership function, individual characteristics of Flexibility, Psychological Mindedness and Achievement via Independence are required, as illustrated through the first ellipse. The second ellipse overlaps the first to denote that Achievement via Independence is also required to realise the *administrative* leadership function. In addition, Dominance is also required to enable the practical application of the superior planning and direction of activities necessary for *administrative* leadership. In turn, the third ellipse overlaps the second to manifest the requirement of Dominance in the achievement of the *enabling* leadership function. Self-Acceptance contributes to the realisation of *enabling* leadership in its provision of the catalyst through independent thinking. The three

combined ellipses represent the personality-driven, strategic leadership functions. The areas of overlap demonstrate the interdependencies of the leadership functions.

Figure 1
Strategic leadership profile



Strategic behavioural factors

Flexibility	Psychological Mindedness	Achievement via Independence	Dominance	Self-Acceptance
<ul style="list-style-type: none"> • Comfort with uncertainty • Openness to new experience • Intellectually supple 	<ul style="list-style-type: none"> • Independent & individualistic • Perseverance over long term • Abstract reasoning 	<ul style="list-style-type: none"> • Tolerance of ambiguity • Creative & original • Unstructured thinking 	<ul style="list-style-type: none"> • Goal-directed & output driven • Develop resources • Direct & manage assertively 	<ul style="list-style-type: none"> • Independent thinker • High self worth • Ambitious and assertive

Underpinning these leadership functions are the observable behaviours that express these personality factors. The emphases of these behaviours are instrumental in leveraging the practical application of these findings, and are best clarified through recommendations to stakeholders.

6.2 Research limitations and recommendations for future research

The primary limitation of this research study was the restrictions to the sample. The secondary data represented only those individuals who currently work in the organisation. The company utilises these assessments at the recruitment stage to positively discriminate between individuals who manifest the best fit to the requirements of the role. As such, the sample presumably included only managers and executives who had been assessed as having an ability to think strategically.

The second limitation of this research is the specific personality inventory used. Given the prominence of the five-factor personality FPCI in organisations, utilising the folk concepts of the CPI-434 may be considered a limitation to extrapolation. Although correlation studies between the CPI-434 and some five-factor personality assessments have been completed, and results show good correlations between these personality measures for four of the five factors (McCrae, Costa & Piedmont 1993), extrapolating across personality measures may require further investigation.

The continued muted growth in the global economy is resulting in tighter competition as organisations fight for survival and growth. Gaining a deeper understanding of improved ways of navigating this new landscape will continue to be topical. Progressive organisations are looking for key differentiators that can propel them back into growth, resulting in a need to comprehend how their leaders can achieve this. In order to supply these insights, further exploration into strategic thinking is needed. The following avenues are recommended:

Given Jaques's (1989) broad definition of complexity, further research to determine whether values play a role should be undertaken. This may shed more light on the factors that contribute to the variation in strategic thinking, and could add value to the new strategic leadership profile. The Motives, Values, Preferences Inventory (MVPI) developed by Hogan could prove useful here.

In order to extrapolate to the general population, a larger, more inclusive sample is required. It is suggested that a sample consisting of the full management and executive population of an organisation would result in more conclusive findings. A more sophisticated statistical technique could then be utilised, resulting in stronger and potentially more meaningful conclusions.

It is also recommended that this research should be repeated across different organisations in different industry sectors and across different geographies. This is likely to provide a richness of insight that is not possible in a unitary company.

Although several nationalities, ages and ethnicities were included in this research, the sample size did not lend itself to insightfully analysing any particular trends. It is recommended that specific studies are undertaken to observe any moderating effects of cultural and generational factors.

The accumulated outcomes of this broadened research will sharpen the new strategic leadership profile, and enable the development of tools and resources that can improve an organisation's ability to identify, attract, select and develop leaders appropriate to the new world of work. Such tools could include behaviourally based interview guides, behaviourally based performance evaluation guides and behaviourally based 360 degree feedback guides.

6.3 Recommendations to Employment Relations practitioners

Recognition that talent is the critical discriminator of corporate performance is imperative in the new world of work. If Employment Relations practitioners are to enable corporate performance, their objectives should be focused on the talent that has the biggest impact on profitable results. This is the talent pool made up of strategic leaders. The strategic leadership profile incorporates specific personality factors that drive strategic thinking. These factors of Dominance, Flexibility, Achievement via Independence, Psychological Mindedness and Self-Acceptance are necessary characteristics and combine to form the new strategic leadership profile.

Identifying leaders with this profile can be achieved in practice through the administration of a personality assessment when identifying talent outside the organisation, or through the observation of related behaviours when identifying talent within the organisation. Once identified, these leaders could receive a disproportionate focus in the execution of talent management interventions – from development initiatives to compensation and rewards.

It is further recommended that leveraging the new strategic leadership profile will facilitate the development of a bench of future leaders. This could involve the

identification of individuals that match the new leadership profile early in their career. This cadre of individuals at the junior to middle management level could not only deepen the level of strategic thinking in the organisation, but also ensure sustainability through continued succession of strategic leaders. The provision of a continuous stream of capable strategic leaders would facilitate organisational stability that could bolster shareholder comfort regarding the organisation's future sustainability.

Embracing the new leadership profile can propel Employment Relations practitioners into delivering on the commercial requirements of the business. Identifying and selecting these leaders can have a significant impact on managing in the current environment, and identifying and developing these personality and behavioural factors in junior and middle management can ensure continued strategic leadership into the future.

6.4 Recommendations to management and leaders

Lamb and Sutherland (2010) revealed that an internal locus of control was required for an individual to successfully navigate the new world of work. This ability to be accountable for one's actions is critical in focusing on self-development. Managers and leaders who possess the new leadership profile can develop and refine their abilities through dialling up (emphasising), or dialling down (de-emphasising), certain behaviours. This would be particularly relevant in reflecting on the specific behaviours required in particular situations.

For example, identifying a new product brand strategy requires an individual to "dial up" intellectual suppleness and creativity. To create a practicable brand plan requires an emphasis on behaviours required for superior goal development, and practical execution requires a "dial up" on the development of resources, perseverance and assertive direction. By emphasising and de-emphasising certain behaviours, leaders can achieve flexibility in their approach to the dynamic context to which they are exposed daily.

Embracing the new leadership profile can provide a defined target on which managers and leaders can focus in their continuous development. A persistent focus can facilitate a behavioural flexibility and suppleness that can largely differentiate successful leaders from their competitive counterparts.

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