



PROFESSORIAL INAUGURAL LECTURE

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Demystifying Leadership Connectivity: Rediscovering the soul of leadership
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Demystifying Leadership Connectivity: Rediscovering the soul of leadership.

INTRODUCTION

A Google search on 'leadership' produced 4.2 million articles, books, blogs and webinars on how to become a better leader. Most of the literature, comprising experts and the popular press, abound with formulistic prescriptive steps endorsed by two or three iconic figures that support their regimen. Regardless of the plethora of literature in leadership providing practical and logical tactics, many fall short on implementation and thus result in failure. What numerous sources fail to acknowledge is that the great leaders apply these tactics together with their innate skills to offer clear direction for themselves and their followers. Providing a clear vision and/or strategy to deal with uncertainty and ambiguity is one of the foremost abilities distinguishing leaders in our rapidly changing world and the ability to take employees with them. In addition, various individual (personality, values, cultural, ability) and contextual (nature of the business, complexity, rate of change, work team, diversity) factors may contribute to leadership failure that is characterised by a lack of vision, uncertainty, bullying, management by exclusion, and in extreme cases fraud and corruption. Regardless of the proliferation of leadership literature the world has never been more desperate for sound leadership. We have enough leaders but not enough leadership. With all the literature on leadership, how do you find the essence of leadership?

While numerous definitions of leadership exist, a number of common concepts emerge. A key theme that emerges is the leader's 'ability to get things done by influencing others' and/or change. Some definitions of leadership focus on the negative or dark side of influence including coercion, dominance, manipulation, control, and bullying. This interpretation of influence represents an impoverished leadership style and abuse of power that is diametrically opposed to the interpretation of influence adopted in this paper. For the purpose of this paper, the leader's influence is interpreted as the ability to systematically create rapid, profound and sustainable changes in human behaviour (of followers/employees). Inferred in this definition, the leader's influence is via a series of positive constructive behaviours, interactions and interventions that primarily creates a positive psycho-social environment culminating in engaged, committed and happy employees that shows in their well-being.

Great leaders inspire the inner core of those he leads; a great leader can define a new reality

and make possible what was previously impossible or unimaginable. (Macready, in Veldsman, 2016, p.826).

Great leaders must connect and identify with those they lead to unleash the full power of passion, tenacity and perseverance (Macready, Veldsman, 2016, p.826). This tenet expressed by Macready, encapsulates the underlying premise of this lecture.

WORLDVIEW

Leaders engaging with and interpreting their organisational context do so from an innate worldview perspective. Veldsman et al. (2016, p.325) contend that leaders' worldview represents the lens through which organisational context and dynamics are viewed and influences their thinking, understanding and commensurate actions. The particular worldview or lens with which leaders interpret an organisation may blind them to the true context and dynamics resulting in poor decisions. Decisions are based on the leader's worldview representing his/her way of making sense of the world (reality). Earlier worldviews, such as the mechanistic and systems views, are deemed inadequate lenses to examine modern-day organisations subjected to rapid change and complexity. Presently, researchers posit that the Chaos/Complexity and Social Constructivism Worldviews provide the appropriate lens for examining organisational contexts (Veldsman et al. 2016, Snowden & Boone, 2007). Both these worldviews emphasize integration of an organically growing set of sub-systems evolving in line with the rate of change. Central to this capability is the network of interpersonal, team and divisional relationships and networks. A key contention of this paper is the following; to harness the web of relationships and networks require leaders with influence, and a predominantly humanistic (people-centered) orientation. A leader's engagement with context of the organisation, informed by an accurate and appropriate worldview together with a people oriented focus, is therefore a crucial lens/orientation for effective leadership.

Capra (1996) argues that it is imperative for all individuals as well as organisational leaders to adapt their worldview and develop their ecological intelligence. In order to address the overarching problems society faces today organisational leaders, politicians and educators need to change their cognitive thought processes as well as become aware of the need for such cognitive change (Capra, 1996). In other words, there is a need by leadership to think differently. A shift from a mechanistic (worldview), linear perspective to a systemic, holistic

and ecological perspective is required (Capra, 2013; Allen, Stelzner and Wielkiewicz, 1998). Organisational leaders need to think systemically with regards to relationships, the configurations thereof and behavioural spheres of influence (Capra, 2013). A business leader must no longer view the organisation as a machine pursuing traditional goals of monetary wealth creation for the benefit of shareholders alone but rather a network of relationships striving to achieve the common goal of sustainability for all stakeholders including the environment (Allen, Stelzner and Wielkiewicz, 1998).

Having established effective leadership, in the twenty first century, requires an appropriate worldview together with a strong people orientation, it merits a review of existing leadership theories with a strong people orientation. Leadership philosophy concerning the role of people (employees) has evolved over the last one and a half centuries in line with the four industrial revolutions. The first industrial revolution used steam-power to mechanise factories where tight control over people in a master servant relationship, was maintained. The leadership philosophy based on Machiavellian principles was, 'I do to you'. The second industrial revolution used electricity to initiate mass production and manufacturing. Leadership philosophy at this time was, 'control work performance by applying a combination of scientific principles and incentives' (Taylor). Digitization initiated the third industrial revolution that brought a change in leadership philosophy to 'I do it with you' (participative leadership). Artificial Intelligence and robotics drive the fourth industrial revolution (current) with an adjustment in philosophy that holds 'we do it together'. Leadership styles supporting the prevailing philosophy are transformational and servant leadership. The preceding discussion highlights the change in leadership philosophy, commensurate with technological advances, and accentuates the key role people (employees) play in today's organisations.

Following from the change in leadership philosophy accentuating employees' role in modern organisations, classical leadership theories incorporating a strong people focus is examined. The theories reveal an evolutionary progression in their stance to leading people in line with technological advances driving the four industrial revolutions. A key focus for the examination of leadership theories is, therefore; what principles regarding leadership thinking and behaviour can be distilled from the theories to elucidate critical guidelines in leading people? The first, and most significant, theory introducing a people-centered focus was that of Elton Mayo. His seminal work, based on the Hawthorn studies, led to the Human

Relations School of thought. Findings relating to changes in group norms, satisfaction, motivation and patterns of supervision had a greater impact on performance and productivity than organisational structure and authority systems. Mayo's (1930) research therefore emphasised the significant relationship of people for productivity and not machines as previously believed. The human relations management theory posits that people desire to be part of a supportive team that facilitates development and growth.

McGregor's (1960) work, also rooted in human work motivation, where management was centred on two contrasting sets of assumptions managers make about their people, described as theory X and theory Y. Theory X starts from the assumption that people are naturally lazy, want to avoid work as much as possible, do not wish to take responsibility, have no ambition and prefer to be closely managed, resulting in an autocratic leadership style. Theory Y conversely assumes that people are inherently happy to work, they want to exert themselves and they are motivated to pursue objectives. There is no need for the system that involves rewards and punishments. A democratic leadership style arises on the basis of Theory Y allowing employees to have a greater say, and encouragement and rewards are used rather than control and coercion (DuBrin, 2016).

The situational leadership approach developed by Hersey and Blanchard (1982) is based on the maturity and ability of the subordinate. Leaders/managers are encouraged to adapt their leadership style to tasks and relationships in the workplace. A key advantage of using an adaptive leadership style is that leaders can change their style at their own discretion at any time. There is thus no one correct style and a leader's ability to adjust will be reliant on the following competencies namely, ability to diagnose the performance, competence, and commitment of others, to be flexible, and to partner for performance. A leader's level of influence therefore varies in accordance with the preferred style commensurate to the maturity level of the employee (DuBrin, 2016).

Blake and Mouton's leadership grid is based on contrasting two behavioural dimensions namely concern for people and production. Concern for people means the degree to which an individual is committed towards the goal achievement, maintaining self-esteem to workers and satisfying interpersonal relationships. Whereas, the concern for production means an attitude of superiors towards the quality of procedures and policies, creativeness of research,

effectiveness of staff, work efficiency and volume of output. Concern for people dimension, includes the leader's influence relating to members' needs, interests and areas of personal development when deciding how best to accomplish a task (DuBrin, 2016).

According to the Path-Goal Theory (1970), a leader must focus on various types of leadership behaviour and decide which behaviour best fits the employee and work environment in order to achieve a goal. The following leadership behaviours namely, achievement-oriented, directive, participative, and supportive anchor the four leadership styles. The goal is to increase an employee's motivation, empowerment, and satisfaction so they become a productive member of the organisation. Employee satisfaction is contingent upon the leader's performance as both a facilitator and coach and rewards their employees for effective performance. Research shows that employee performance and satisfaction are positively influenced when the leader compensates for the shortcomings in either the employee or the work setting (Northouse, 2013). It is worth noting how the nature and level of leadership influence has evolved as outlined in the preceding leadership theories. Evolutionary developments in leadership influence are closely aligned with technological advances associated with the industrial revolutions (DuBrin, 2016).

The leader-member exchange theory (LMX) is a relationship-based approach to leadership that focuses on the two-way relationship between leaders and followers. According to LMX theory leaders do not treat all subordinates the same and this may result in an in-group and out-group of employees based on the leaders' preference. Work-related attitudes and behaviours (performance) of subordinates depend on how they are treated by their leader. Positive relationships based on trust and respect is often emotional relationships that extend beyond the scope of employment (specifically mentoring and coaching relationships). The theory views leadership as consisting of a number of dyadic relationships linking the leader with a follower. The quality of the relationship is reflected by the degree of mutual trust, loyalty, support, respect, and obligation (DuBrin, 2016).

EMPLOYEE ENGAGEMENT

My leadership journey started with a doctoral study in employee engagement in 2004 that provides the foundation for the search into the soul of leadership. Employee engagement in 2004 was a new construct with limited literature and empirical research apart from firms such

as Gallop and Towers Perrin providing consulting services. The following overview represents key theoretical underpinnings and learning derived from literature and empirical studies in employee engagement at the start of the journey.

Towers Perrin (2009), a global professional services firm identified employee engagement as having three components: rational 'think', emotional 'feel' and motivational 'act'. To be fully engaged, employees must have a cognitive understanding of, and an affective attachment to, the organisation's strategic goals, values and their place in it. The business benefits of an engaged workforce are far reaching and there is mounting evidence that high levels of employee engagement correlates to improvements in individual, group and corporate performance with regards to the following:

- Better financial performance in respect of higher operating income, net income growth and earnings per share (Towers Perrin, 2009);
- Fewer performance problems (Rayton, 2012) and higher productivity (Gallup, 2012);
- Superior customer service and satisfaction (Towers Perrin, 2009a & Dotson, 2011);
- Lower staff turnover (Rayton, 2012);
- Higher levels of innovation and creativity (Rayton, 2012),
- Fewer workplace accidents and sick days taken (Gallup, 2008);
- Greater loyalty to company products and services (Gallup, 2008)
- Higher incidence of enjoyment at work and lower levels of stress and anger (Gallup, 2012)

The business case for employee engagement is best summarised by Haid and Sims (2009, p. 7): "Employee engagement is, arguably, the most critical metric for organisations in the twenty first century as most, if not all, of the other key measures that reflect and drive organisational performance (customer satisfaction, innovation, profitability, productivity, loyalty and quality) are products of engaged, committed employees". If this is the case then business leaders need to know about engagement levels in the same way they need to know about other critical information, such as financial, productivity and customer data. According to Haid and Sims (2009), an accurate measure of engagement - one that identifies both the drivers of engagement and offers a solution to address behaviours and practices that are hindering engagement - is an essential business tool. This assertion provides the rationale for investigating the drivers of engagement.

Gibbons (2006) under the auspices of The Conference Board published a report "*Employee Engagement, A Review of Current Research and Its Implications*". According to this report, twelve major studies on employee engagement had been published over the prior four years by top research firms such as Gallup, Towers Perrin, Blessing White, the Corporate Leadership Council and others. Each of these studies emphasise that engagement requires a relationship with one's manager – Does the employee value his or her relationship with his or her manager? Effective leaders act as role models, coaches, mentors and team builders (Crim & Seijts, 2006), while also being interested in and caring about their employees as human beings and not just as instruments of production (Bart, 2011).

An engagement study commissioned by Carnegie Training, of 1500 production employees, discovered that "although there are multiple factors affecting engagement, the personal relationships between a manager and his or her direct reports is the most influential" (Carnegie,2012). Key findings of the Carnegie study include:

- Employees who are unhappy and dissatisfied with their immediate supervisors are less likely to identify with the organisation's vision and more likely to be absent or resign;
- Forty-nine per cent (49%) of those employees who were very satisfied with their direct manager were engaged and an astonishing 80% of those who were very dissatisfied with their immediate supervisor were disengaged;
- Recognition of employees' contribution, along with feedback and encouragement on their performance from their manager, leads to increased confidence, commitment and achievement. Failure to recognise and reward good work can negatively impact employee morale and productivity.

According to the literature reviewed the following important drivers, levers or enablers of engagement emerged: Leadership and management (including strategic narrative, commitment, support); Communication; Organisation (including culture, vision, brand); Company policies and practices (recruitment, training and development, pay and benefits, communication) and Work-life balance (including environment, workload, job design) (MacLeod and Clarke, 2009; MacBain, 2007; Leiter and Maslach, 2004). Additionally, a number of recurring themes based on the drivers were identified as follows: Role of the

leader, Communication; Work-life; Company alignment; Growth and development; Recognition and reward and Management support.

In the current, information-based era, knowledge has become the critical raw material and the primary source for creating value which has been accompanied by a shift from physical capital and towards human capital (Drucker, 1999; Teo, Lakhani, Brown and Malmi, 2008). The primary source of this human capital is the information-age knowledge worker who carries information within them as a powerful resource which they themselves own, rather than their employer (Markov and Ford, 2011). A review of literature relating to the motivators of knowledge workers yielded a list similar to that of the drivers of engagement, however, two new areas, namely autonomy and mission and purpose emerged strongly as being of particular importance to this type of employee (Markova and Ford, 2011; Ehin, 2008).

A key learning permeating the studies, mentioned above, is the fundamental role of the leader/manager in engaging employees. This led to the question; how can leaders influence employees for improved engagement?

LEADERSHIP EMPOWERING BEHAVIOURS

Establishing key drivers of engagement was the primary focus of the first set of empirical studies that clearly highlighted the primacy of leaders/managers' in engaging employees. In just what way leaders can influence psychological empowerment and employee engagement in the workplace, shifts the potential to create an empowered and engaged workforce into the hands of the leaders in the organisation and provided the focus of the second series of empirical studies. A study focused on identifying leadership empowerment behaviours required to enhance psychological empowerment and engagement of client interface employees, at a major financial institution, led the enquiry into isolating leadership behaviours.

Theoretical support for examining leadership empowering behaviours was found in Mendes and Stander's (2011) study; the influence of leaders' role behaviour on work engagement that acknowledges a link between the display of certain leadership empowering behaviours and improved levels of employee empowerment and work engagement. Through the construction and validation of the empowering leadership questionnaire (ELQ), Arnold, Arad,

Drasgow and Rhoades (2000) identified five leadership behaviours or factors, namely coaching, informing, leading by example, showing concern / interacting with the team, and participative decision making. In a study intended to design an instrument for measuring leader behaviours which influence psychological empowerment (the leader empowering behaviour questionnaire, LEBQ), Konczak, Stelly and Trusty (2000) identify six dimensions of empowering leader behaviour. These dimensions include delegation of authority, accountability, self-directed decision making, information sharing, skill development and coaching for innovative performance.

In a review of thirty years of research, Borg, Guzman, Nielsen and Skakon (2010), found that leadership behaviours of support, empowerment and consideration are associated with higher employee well-being levels and a low degree of employee stress. Specific leadership empowerment behaviours significantly influence employee satisfaction levels. In using Spreitzer's four dimensions of meaning, competence, impact and self-determination (1995), it was established that psychological empowerment predicted employee engagement in a statistically significant way. Rothmann and Stander (2010) further elaborate on this concept by indicating that individuals who experience a sense of purpose in their work, who believe they have the skills and training to do their job effectively, who believe they can contribute to or influence the area in which they work, and those who have their own goals are more engaged in their work. Further significant links between psychological empowerment and engagement have been documented, as one of the cognitions of psychological empowerment identified by Spreitzer (1995), namely psychological meaning, was also found to be a strong predictor of employee engagement by both May, Gilson and Harter (2004) as well as Rothmann and Rothmann (2010) and later affirmed by Bester, Stander, van Zyl, (2015). Based on the work by Thomas and Velthouse (1990), Spreitzer (1995, p.1444) defines psychological empowerment as a "motivational construct" that is revealed through the four perceptions of meaning, competence, self-determination, and impact. Within a leadership context, it involves entrusting power to others through effective listening, providing conditions for employees where they feel significant, emphasising teamwork and treating employees equally (Bester, Stander, van Zyl, 2015).

Dewettinck and van Almeijde's (2011) study found a direct relationship between leadership empowerment behaviour and affective commitment of employees with psychological

empowerment mediating the relationship. A significant corollary based on the aforementioned research findings, is that employees' experiences of their leaders as empowering, is central to psychological empowerment (Bartram, Karimi, Leggat, & Stanton, 2014; Lee & Nie, 2014; Bester, Stander, van Zyl, 2015).

Our study (Poisat & Webb, 2017), at a major financial institution, revealed four leadership empowering behaviours (LEB) they were:

- Supporting self-leadership
- Executing the communication strategy
- Showing concern/interacting with the team
- Empowerment Climate

The LEBs of executing the communication strategy and empowerment climate were found to have the most significant influence on psychological empowerment.

In reviewing the overlap in literature on leader behaviours, which influence psychological empowerment and employee engagement, and, simultaneously, taking into account the findings of our study, adequate support was found that LEBs simultaneously impact both psychological empowerment and employee engagement. From a manager's point of view, this insight offers the leader further incentive to develop strengths in these behaviours in order to both empower and engage their team members. Specific leadership behaviours that should be developed include; support for self leadership by employees, including delegating of decision-making, as well as giving employees the discretion to act on their own, listening, showing concern and interacting with the team. In addition to contributing to the understanding of LEBs, within the context of the study, results provide clear direction for developing leaders/managers directed at empowering and engaging front-line employees.

This study affirmed the contention developed in the first series of research on engagement, affirming the leaders/managers' role in engaging employees, and advances the notion to include specific LEBs that both psychologically empower and engage employees.

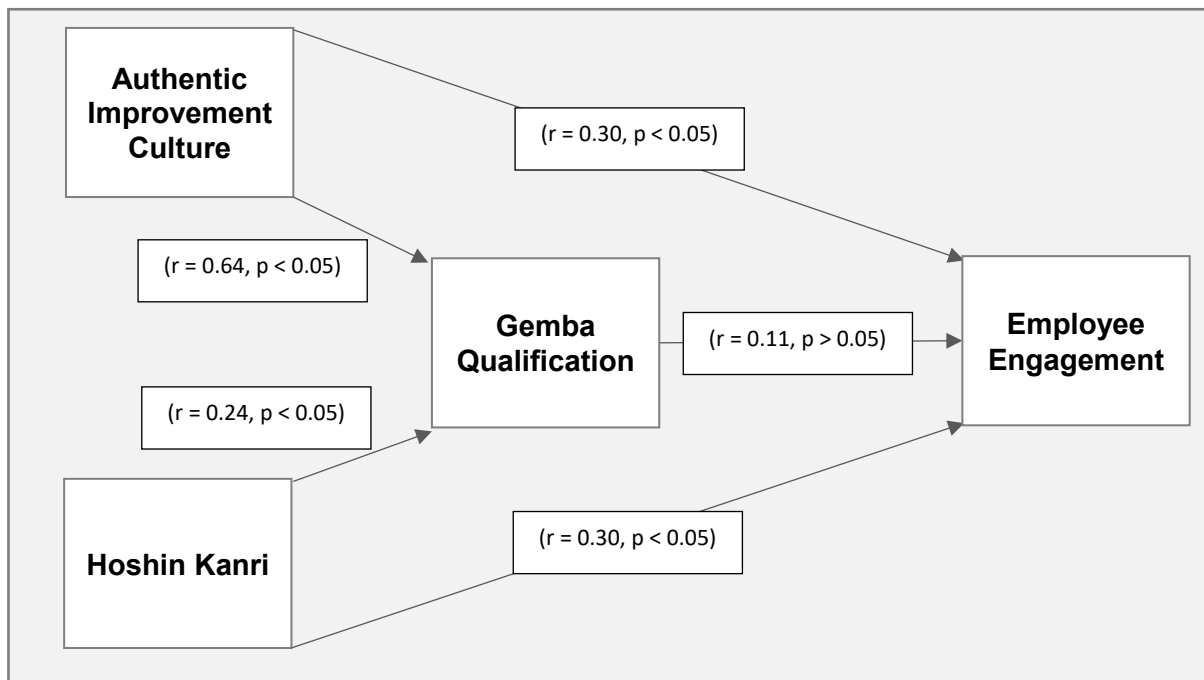
LEAN LEADERSHIP AND ENGAGEMENT

Advancing the enquiry into leaders/managers' behaviours for engaging employees the LEAN leadership model was tested. The purpose of the study was to determine the critical LEAN Leadership behaviours required for promoting employee engagement (Grewan, 2018). Dombrowski and Mielke (2013, p. 571) emphasised the critical importance of leadership as a cornerstone for stimulating employee engagement in continuous improvement systems. The majority of LEAN Implementation attempts were reported as either failed, or that they did not meet the desired expectations. According to Ashtiani et al. (2017, p. 1), leadership was listed as either a key failure factor or key success factor for LEAN Implementation.

This study highlights several important findings regarding successful LEAN Management. The first key finding affirms the significant role employee engagement plays in LEAN Methodology. In addition, employee engagement promotes the onset of critical and favourable business outcomes including increased productivity, profitability, customer loyalty and safety. A second finding, derived from literature and affirmed by the study, showed that leadership behaviours can lead to either the success or failure of attempted LEAN implementations.

Specific leadership behaviours are required in LEAN manufacturing i.e. LEAN Leadership behaviours. It is these LEAN Leadership behaviours that promote employee engagement. These behaviours involve leadership presence on the shop-floor with the aim of coaching employees and building their capability in problem solving through active listening spending time with employees and recognising them. It is important for management to integrate these behaviours in leadership development. This conclusion leads to the third, and most significant finding namely, The LEAN Leadership – Employee Engagement Model depicted in figure 1 provides a framework that explains the relationship between LEAN Leadership behaviours and employee engagement. The role and impact of the line manager, represented in the LEAN Leadership – Engagement model by the mediating variable (Gemba Qualification) is shown to have a positive and significant impact in promoting employee engagement.

Figure 1: LEAN Leadership Engagement Model



Grewan (2018)

Finally, it is worth noting that shop-floor employee perceptions of management behaviours differ from management perceptions of their own behaviours, which has the potential to influence employee engagement.

The LEAN Leadership - Employee Engagement Model suggests that line managers are able to promote employee engagement by spending time with employees and recognising them on the shop-floor. The model also shows that Authentic Improvement Culture leadership behaviours and strategic management behaviours (Hoshin Kanri) has a direct positive influence on employee engagement, while they also indirectly worked through the Gemba Qualification to positively influence engagement. It is important to note that the role of the Team is the centre of the LEAN Leadership Model, from which the LEAN Leadership - Employee Engagement Model was derived. It is important that the role of the team in LEAN methodologies, and the behaviours that promote teamwork amongst the shop-floor employees, does not lose focus (Grewan, 2018).

AFRICAN LEADERSHIP

By examining the leadership approaches of 42 senior leaders and executives operating in multinational corporations in four Sub-Saharan African countries, the study found that despite their significant differences, Western and African business leadership styles can be blended to form an entirely new construct.

This hybrid approach, which combines Western pragmatism and African humanism, recognises the importance of fact, logic and the nature of reality, but also promotes the recognition of human focused and collectivist forms of leadership.

While African leadership approaches have often been criticised for being poorly adaptive to increasingly complex globalised economies, empirical data in this study presents an entirely different picture – one of confident, self-assured African leaders effectively heading businesses that are part of Western multinational corporations operating in emerging markets. The findings of this research point to the fact that senior executives and leaders have moved towards a more humanistic culture without compromising their drive for results.

Leadership approaches of the senior executives and leaders represent a crossvergence of Western and African culture emerging as the African Way of Western leadership practices. Crossvergence refers to an individual's ability to merge national culture with economic ideology in a way that allows for the creation of a unique value system that is based on harmonious interactions between the two. It requires the adoption of certain African leadership characteristics which are used together with Western leadership approaches. The Western approach informs the 'what' needs to be done while the African approach informs the 'how' to do it. Using the experiences of senior executives and leaders, the study presents a leadership framework that promotes a hybrid approach to leadership, and highlights some of the core competencies and leadership styles that are needed to facilitate effective and successful leadership in complex emerging market environments (Whitley, 2016).

The business leadership framework provides a guide to businesses which are either operating in emerging markets or are thinking about going into emerging markets, regarding the selection and or development of their senior executives. Firstly, it looks at the context. This includes the risks and challenges related to the business environment that need to be

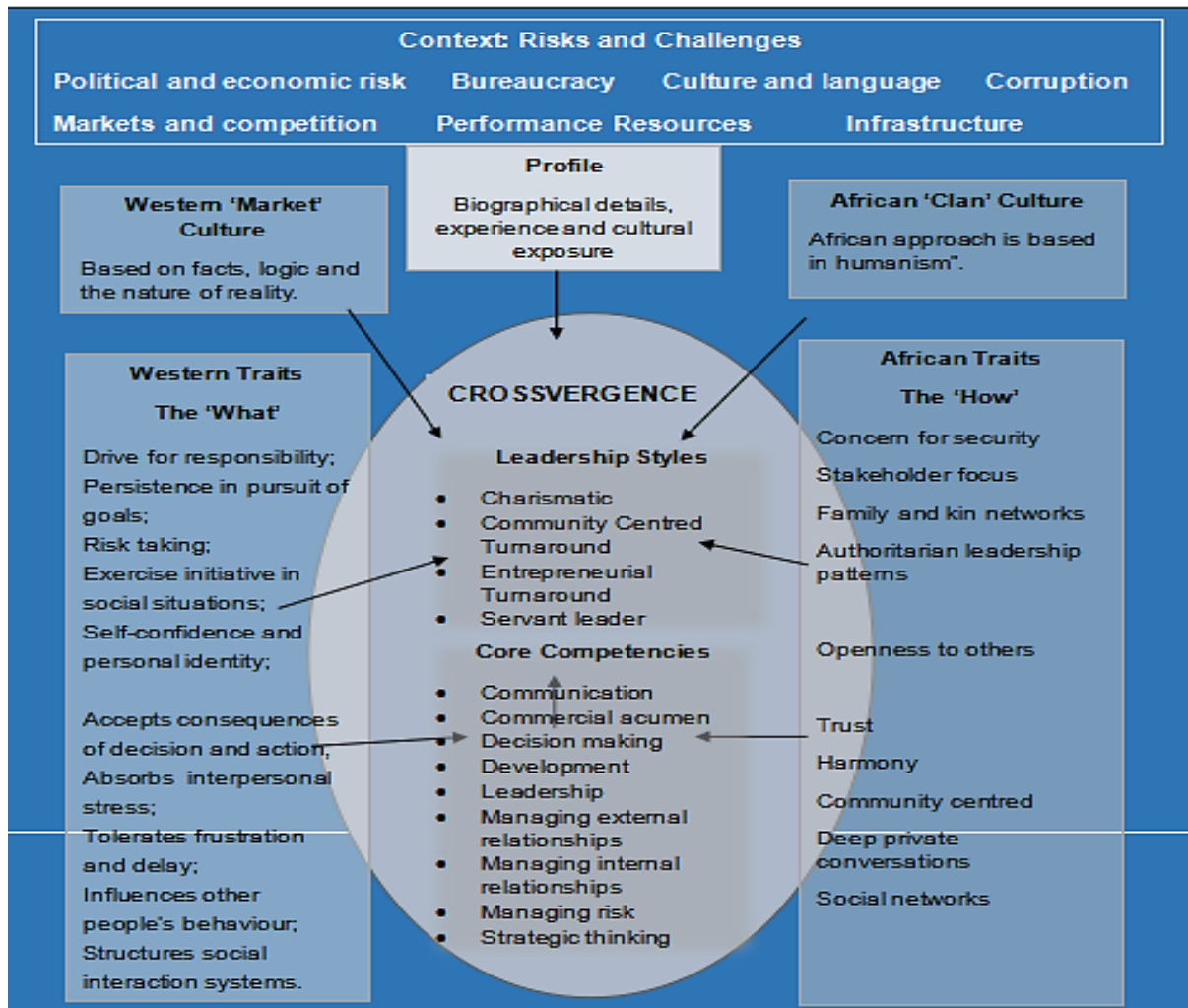
considered. For example, political and economic risk, weak currencies, bureaucracy, culture and language limitations, and performance, resource and infrastructure issues. The leadership profile and style also have a key role to play. Operating in the African or emerging market context requires certain biographical details, experience and cultural exposure as well as leadership style. The five leadership styles found to be particularly effective in this context included, charismatic, community centred, entrepreneurial, servant leader, and transformational styles.

Skill sets or core competencies emerged as important factors to consider when selecting or developing leaders in these environments. In particular, competencies related to communication, commercial acumen, decision making, development, and strategic thinking, among others, were highlighted as important. In addition to this, the framework looks at how candidates' attachments to Western market culture, African clan culture, and Western and African traits and characteristics can be combined to create the crossvergence approach to leadership that African markets increasingly require. What is important about the business leadership framework is that it provides a guide to businesses (not only MNCs) which are either operating in emerging markets or are thinking about going into emerging markets, regarding the selection and or development of their senior executives.

The framework presented in figure 2 sets out the way for business leadership in Africa/emerging markets promoting a crossvergence approach to leadership and company culture that is shaped by the Managing Director and his team.

It requires the adoption of certain African leadership characteristics which are used together with Western leadership approaches. The Western approach informs the 'what' needs to be done while the African approach informs the 'how' to do it. Combining the Western piece with context appropriate local country insights and knowledge" (Theimann et al., 2006) has resulted in a unique hybrid.

Figure 2: Framework for leading in Africa/Emerging markets.



ECOLOGICAL INTELLIGENCE

This section on ecological intelligence represents a detour in the leadership journey that up to now predominantly focused on employee engagement and leadership empowering behaviours. Exposure to McCallum's (2009) seminal work on ecological intelligence with its focus on understanding human's relationship with our environment, introduced a crucial element in deepening my understanding of human connectivity and tracing its origins in the psyche.

Ecological intelligence is the ability of an individual to learn from reciprocal experiences with the natural environment and all living organisms and adapting ones behaviours to best sustain the ecosystem. Ecological intelligence as an approach to understanding human's relationship

with our ecosystem is a new theory (Kuo, 2011). McCallum (2009), Kuo (2011) and Goleman (2009a) all attest to humans possessing ecological intelligence stretching back to the start of civilisation however it has diminished through our development to present day. The largest contributing factor to the demise of ecological intelligence within the human species is that humans have become anthropocentric, we have lost our sense of interpersonal connection with the natural environment and are desensitised to the interdependence we hold with all else in the environment (McCallum, 2009). This disconnection is sometimes denoted as the Human-Nature split (McCallum, 2009).

Paul MacLean's Triune Brain Theory is a useful model for describing and understanding human behaviour and the evolution of our intelligence (Deacon, 1990). MacLean's Triune Brain Theory; which theorises that the human brain comprises of three separate brains, the first, a reptilian brain then a paleomammalian brain and finally the neo-mammalian brain (McCallum, 2009).

The three brains function interdependently among one another and contain the pattern for separate groups of behaviour (Holden, 1979). Firstly, the reptilian brain is instinctive aggressive and territorial (MacLean, 1994; McCallum, 2009). It is the part of the brain that is responsible for those behaviours that seek self-preservation predominately revolving around food as well as fighting and self-defence if necessary to achieve self-preservation (MacLean, 1994). The reptilian brain forms the main and smaller routines within the main routine of an individual or animal; wake, forage for food, eat, mate, rest, forage for food, eat, sleep (MacLean, 1994; Maximimo, 2007). Like the reptilian crocodile who behaves unemotionally, humans also display acts of disregard and carelessness, acting opportunistically without considering the consequences thereof for the present and the future (McCallum, 2009). In other words taking what you want, as much as you want and whenever you want without consideration for anything other than oneself.

The paleomammalian brain comprises of the limbic system and enables the ability of self-awareness (Maximimo, 2007). According to MacLean (1985, 1994) and McCallum (2009), the limbic system facilitates capacity of the following three behaviours: maternal care, playful or social behaviour and recognizable vocal, audible communication. The paleomammalian brain is capable of a greater amount of control over motor functions than its predecessor; it is responsible for emotions, memory and the perception of place however these functions are still biased towards the reptilian strategy (McCallum, 2009).

The neomammalian brain comprises of the cerebral cortex and is accountable for reflective and analytical thought and analysis of the external environment (Maximimo, 2007). There is hope for the human race if we can learn to function in the neomammalian brain which is capable of forethought, intuition and understanding, which contributes towards behaviours of compassion and selflessness (Holden, 1979; MacLean, 1994). If one is to achieve harmony with themselves and the environment, sustainability, one needs to display compassion and selflessness (Holden, 1979).

Humans predominately do not operate at the highest level of intelligence. Besides for the reptilian brain overriding the paleomammalian and neo-mammalian brain in order to serve self the limbic system also dominates over the neo-mammalian brain. The limbic system generates emotions associated with ideas that are processed in the neomammalian brain and the limbic system whose primary drive is social acceptance supersedes the morality and ethical drive of the neomammalian brain (Wilde, LeBaron and Israelsen, 1985). This provides two reasons why humans place greater importance on serving self and, at the best, their community or species over the environment and animal species, in other words, why humans have become deeply anthropocentric.

Ecological intelligence encompasses an individual's awareness and understanding of the interconnectedness of all living things as well as the role and impact of an individual within the ecosystem of life. Capra (1996) is of the opinion that it is imperative for all individuals as well as organisational leaders to develop their ecological intelligence. In order to address the overarching problems society faces today organisational leaders, politicians and educators need to change their cognitive thought processes as well as become aware of the need for such cognitive change (Capra, 1996). In other words, there is a need by leadership to think differently. A shift from a mechanistic, linear perspective to a systemic, holistic and ecological perspective is required (Capra, 2013; Allen, Stelzner and Wielkiewicz, 1998). Organisational leaders need to think systemically with regards to relationships, the configurations thereof and behavioural spheres of influence (Capra, 2013). A business leader must no longer view the organisation as a machine pursuing traditional goals of monetary wealth creation for the benefit of shareholders but rather a network of relationships striving to achieve the common goal of sustainability for all stakeholders including the environment (Allen, Stelzner and Wielkiewicz, 1998).

In order to develop an affirmation of an ecological worldview an individual would need to be

aware and comprehend that nature is a balanced, intricate and highly interdependent system of life and thus vulnerable to human interference (Kempton, Boster and Hartley, 1996; Lundmark, 2007). In comparison an individual or business leader with little or no understanding of the balance of nature would deem that the balance of nature is robust and resilient enough to endure the impacts of modern developing and developed nations (Lundmark, 2007).

Key takeouts from the ecological intelligence study (Hill, 2014), informing the leadership journey, are summarised as follow:

- Interconnectedness of things and how humans have lost this perspective.
- Leaders need to think systemically about relationships and behavioural spheres of influence.
- A different worldview is required incorporating an ecological element.
- The importance of the limbic function in the brain that controls emotions.

These findings provided the rationale to explore neuro-leadership and represent the final stage of the journey to rediscover leadership connectivity.

NEURO LEADERSHIP

In the final stage of the leadership journey to discovering the soul of leadership, key findings from the study into ecological intelligence steered the enquiry into neuro-leadership. A key question driving the enquiry was; what can neuroscience teach us about leadership connectivity? Considering that a neuroscience approach explains the biological underpinnings of leadership behaviours that provide the basis for a brain-centric approach to leadership; what specific leader behaviours support connectivity and enhances influence?

The SCARF model developed by Rock (2009) is based on important neuroscience discoveries of how people interact socially. Firstly, the brain is there to keep us safe (flight or fight principle) and instinctively moves away from threat and towards reward. Secondly, our cognitive ability, creativity and collaboration with others are significantly limited by threat responses (stress caused by a working relationship filled with conflict, or bullying by a supervisor) and enhanced by a reward response. Thirdly, brains treat social hurt and reward with the same intensity as physical hurt (pain) and reward (monetary reward), which is why

our interactions with team members and stakeholders have major implications for organisations (Lieberman, 2012).

The SCARF model comprises five domains of human social experience, they are; status, certainty, autonomy, relatedness and fairness. The five domains activate either the reward or threat neuro-circuitry in the same way as a perceived threat to one's life. Relatedness is a sense of safety with others (manager/leader or team members) and activates a friend (reward) rather than foe response. In the same way, behaviour perceived as fair increases perception of fairness and activates the reward circuitry similarly to receiving a monetary reward. Leaders familiar with the SCARF model and its impact on the social experience of people/employees can potentially modify the social domains that drive human behaviour. Applying the SCARF principles offer numerous advantages to organisations, leaders/managers and employees including inter alia reduced stress levels, improved working environment, greater propensity for innovation, improved employee engagement, and enhanced team work Rock (2009).

Theory regarding the functioning of the brain has evolved, since the triune brain theory (discussed previously) was developed, into large-scale network models of the brain. The INTEGRATE or 124 model explains how the brain performs and provides insight into the specific order of reactions in the brain. Key tenets include the key principle of the brain, which is safety first thus wiring itself to survive rather than thrive. Furthermore, the brain has four underlying interconnected processes namely emotions, thinking, feeling and successful self regulation that is initiated through electrochemical activity. Release of noradrenalin for fight or flight response, dopamine for reward cues, serotonin for enhancing mood and oxytocin for bonding. Brain activity is wired to the core principle of minimizing danger and maximising reward by continually organising the processes of emotion, thinking, feeling and self-regulation (Veldsman, 2016).

A key insight derived from the neuroscience is that the brain is hardwired for social connectivity and this need is as basic as the need for food and water to our survival. This insight provides the rationale for the cognition that the soul of leadership resides within the electrochemical activity released as a result of a leader's behaviours eliciting a reward response in the brain of the employee. It is axiomatic that a leader's quality of connectivity

(relationship) to followers/employees augments the reward response and increases the release of electrochemical transmitters, contributing to a positive relationship and increased state of engagement.

Finally leadership behaviours that may elicit a reward response in the brain are as follows: Neurally-aware leaders understand the importance of the limbic system and build their relationships/interactions by creating safety (brain response) for employees that elicit positive, move towards behaviours. They adjust their communication and interactions with employees (stakeholders) that limit the unhelpful neurotransmitters (cortisol and adrenalin) and stimulate the firing of serotonin and dopamine.

Practice mindfulness that involves reflective practice that switches the mind from analytical (hyperfrontality) to quiet mode (hypofrontality) by taking a walk, listening to music or journaling. Ironically, being continually goal focused switches off the part of the brain that is required for leadership of self and employees. The practice of mindfulness is directly related to the enhancement of the self regulating dimension of emotional intelligence (Veldsman, 2016).

Leaders who are neurally-astute counteract the innate negativity in the brain by deliberately deploying positive messaging in interpersonal communications. When employees observe the positive interactions/messaging, the brain's mirror neuron system is activated and through a process of emotional contagion, employees' emotions and behaviour become closer aligned with that of the leader. This has the effect of increasing social cohesion.

Conclusion

Research into drivers of employee engagement identified the role of leaders/supervisors as a key factor in promoting engagement. This provided the impetus to identify specific leader behaviours that contributed to employee engagement and moreover enhanced the leader's influence. From the initial engagement and leadership empowering studies specific drivers and leadership empowering behaviours emerged. In addition to drivers of engagement (communication, autonomy, recognition, growth and development) strong support was found for the following leadership empowering behaviours namely, acting as role models,

coaches, mentors and team builders, while also being interested in and caring about employees.

Valuable insights were gained from the study of ecological intelligence emphasising the interconnectivity of systems as well as human connectivity and tracing its origins in the psyche. Key takeouts include the following; a different worldview is required by leaders to navigate in today's world, leaders need to think systemically about relationships and behavioural spheres of influence, and the importance of the limbic brain function that controls emotions. This provided the rationale to examine neuro-leadership in the search to discover the essence of connectivity.

Examination of the neuroscience behind leadership confirmed that the brain is wired for social connectivity. Leaders who understand the brain's interpretation and response (by employee) to stimulus received can adapt their response to potentially modify the social domains that drive human behaviour. Understanding the interconnected processes of emotions, thinking, feeling and successful self regulation together with the electrochemical activity that initiates a safe or positive response represents the soul of leadership that is connectivity.

People leave managers not organisations.

When the leader's action is aligned with the follower's performance results and attitude (rather than the leader's comfort zone), then performance, retention, and relationships all improve. Marcus Buckingham

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