Purpose
To cultivate managerial leaders

Dream
To contribute to the development of a sustainable society

Principles
- Seeking the truth (Curiosità)
- Taking responsibility (Dimostrazione)
- Sharpening awareness (Sensazione)
- Engaging the shadow (Sfumato)
- Nurturing integration (Corporalità)
- Embracing holism (Connessione)
- Cultivating balance (Scienza)

Brand promise
To co-create reality
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1 | FOREWORD
– PRESIDENT
The greatest inventions in history were not overnight successes or mere moments of inspiration. They were mostly fueled by a burning passion combined with relentless grit and determination. The individual(s) involved had the deep desire to do something impactful. They were single-mindedly passionate about solving a real problem.

Consider Bill Gates, who in the face of IBM’s prediction that there would only be demand for five mainframe computers in the world, had the vision to put a computer on every desk. Or Steve Jobs, who was obsessed with function and form and committed to “make a ding in the universe”. Mark Zuckerberg ran a hobby project to connect his university friends at Harvard. Brian Cheskey, Nathan Blecharczyk and Joe Gebbia simply rented out an air mattress to provide affordable accommodation for financially strapped students like themselves, as well as to supplement their rent payments.

Microsoft, Apple, Facebook and Air BnB are great examples of companies that started in a garage or dormitory and have gone on to become world class. These are no different to history’s great inventions and innovations. The common trend is that they often started from humble beginnings and went on to disrupt the world at the time. Often their founders had to scrape together financial support from family and friends.

Many great inventions and innovations did not begin because of a large financial endowment, a pure research intent, or the most brilliant academic mind. There are few innovations that were sparked by a single moment of brilliance or instant insight. Many of the founders referred to above, did not start out to create multi-billion companies, but to make a difference or solve a real problem.

As we present our research report for 2017, I reflect on what I consider to be at the heart of the Da Vinci research ethos: Finding a real problem in the workplace or within society, which if solved, can make a meaningful positive difference with measurable impact. This is our guiding principle with every piece of scholarly work and the inspiration of every research scholar. We want every Da Vinci scholar to become obsessed with, and use, their academic work towards solving a real problem and in this way adding measurable value to their company or community. To achieve this we ground our research in deep disciplinary and technical expertise, and follow a trans-disciplinary approach.

The trans-disciplinary approach has become a hallmark of The Da Vinci Institute’s conviction that whilst deep subject knowledge within a given discipline is indispensable, within the science of managerial leadership it in itself does not ensure the ability to draw on knowledge across subjects and synthesis across disciplines. Although the term “trans-disciplinary” is a commonly used term, it holds a specific meaning within education. It is a term to describe “studies that use methods and insights to work across and beyond several established disciplines.”
or traditional fields of study..." involving “…researchers, students, teachers and other stakeholders who work together using a shared conceptual framework” (Bernard, Choi and Pak, 2006).

Real life problems do not present themselves neatly in a box. They are not simple “y = mx + C” problems. Real life problems are often messy, initially poorly defined, and complex and hardly ever draw on a single traditional discipline. The Da Vinci approach ensures that our students, who are technical or discipline experts in their own right, become practiced in trans-disciplinary skills required by managers and leaders. At the core of this approach is the skill of problem posing. Not problem solving. Increasingly, computers and technology allow us to solve complex problems with great accuracy at super-fast speeds, at a fraction of the cost it would take humans to solve. Computers though, find it hard to pose problems.

As human beings, we have this faculty because we can dream. We can desire better outcomes than we currently experience. We can imagine futures that do not yet exist. We can empathize with fellow human beings who suffer, and for whom we want to make life better. This is what sets us apart from computers and robots.

We live in the most abundant time ever. Peter Diamandes of Singularity University reminds us that technology has enabled us to scale and augment human effort in unprecedented ways. It places more computing power in the hands of a child than the President of the United States had 20 years ago. Technology has resulted in exponential and disruptive innovation that drives change in products, services, business models, businesses and industries. The World Economic Forum predicts that 65% of 12 year olds today will work in jobs that do not yet exist, and that 40% of listed companies today will no longer be around 10 years from now.

Education and research, more than ever before, have to be future focused. Whilst the future has no precedent, we have the opportunity to create the future we wish for.

I hope that you enjoy reading the 2017 Research Report, and as you read it, I encourage you to think about the human minds and hearts that were inspired to do the hard task of producing the scholarly work. I hope you think about their desire to make a meaningful difference to the world we live in.

I personally wish to congratulate them and thank all who have supported their endeavors.

Prof Edward Kieswetter
President: The Da Vinci Institute
2 | OVERVIEW
– DEAN: RESEARCH
Leonardo Da Vinci believed that ‘the five senses are the ministers of the soul’ and that it is only through what we experience – what we perceive - that we come to know. The Da Vinci Institute strongly subscribes to this view and encourages its doctoral candidates to do the same. Thus, in keeping with the decision in 2015 to assign a Da Vincian principle to each Research Report, the principle that will inform the 2017 Report is ‘Sensazione’. The 2015 Report reflected the principle of ‘Connesione’, referring to ‘connecting the dots’ (seeing the big picture and the relationships between each part of a system); and the 2016 report used ‘Demostrazione’, that is ‘testing knowledge through experience, persistence and a willingness to learn from mistakes’ as its theme.

The 2017 graduates, to a large extent, all honoured the principle of ‘Sensazione’. This is because, without fail, the candidates embarked on a learning journey from intensely perceived ontological views – their studies and the results mattered a great deal, and were informed by their own personal experiences.

The 18 PhD theses can be categorized in roughly five themes: Entrepreneurship in different forms (‘Communipreneurship’; ‘Enterpriseneurship’; and social entrepreneurship); Leadership; Organisational performance, including risk, safety and supply chain management as these relate to organisational performance; Sustainability (food, trade, development and banking); and, Institutional framework development in respect of statistics education, mobile learning, postgraduate student support and women empowerment.

The first theme – Entrepreneurship, gave rise to three theses: Adeojo’s study entitled ‘Integral Banking – enabling communipreneurship towards co-creating sustainable livelihoods for the common good in Nigeria: The case of the Ajegunle Community’, used the concept of ‘communipreneurship’ to formulate new views of banking, finance and entrepreneurship. The aim was to demonstrate that ‘communipreneurship’, within both the formal urban communities and informal rural communities can be harnessed for the common good in Nigeria and Africa at large. The findings relate to a scalable banking methodology for underprivileged and marginalised communities that will enable access to finance and other financial tools that will contribute to sustainable livelihoods.

Mabunda’s theses, entitled ‘Entrepreneurship as a catalyst for enterprise development in South Africa: towards the development of an institutional framework for intervention and support’, on the other hand, debunks the notion of a successful start-up entrepreneurial sector in South Africa, despite substantial government investment since 1994. The study explored the need for alternative policies to stimulate enterprise development – not only during the difficult birthing stage of enterprises, but also with the management skills they require to overcome failures and promote sustainability. The findings reveal that current entrepreneurship development policies are largely ineffective, as they are biased towards the development of start-ups (‘necessity entrepreneurs’) and not towards strengthening existing high-impact small enterprises by scaling these up and replicating successes. He coined the term ‘enterpriseneurship’ to reflect the focus on sustainable approaches to support small enterprises that are more likely to succeed and expand than new start-ups.

The second strong theme emerging from the 2017 crop of theses, is Leadership. Two theses dealt with this topic. Brand’s ‘Ethical considerations in the selection of future Admirals within the South African Navy’, maintains that ethics is not only essential for leaders but in fact, defines leadership. The main purpose of the study was to highlight areas of ethics and leadership concerns in ensuring ethical leadership succession in the South African Navy. From the findings of the study, it is clear that many of the respondents have a common and sophisticated understanding of both ethics and leadership, but that they do not believe that senior
officials in the Navy necessarily act ethically in their day to day conduct. Furthermore, it seems that race, tribalism, gender and qualifications (or lack thereof) take precedence in promotions and that ethics and leadership are generally not considered.

The second thesis dealing with leadership, focuses on leadership styles and its influence on job satisfaction and organisational performance. Mugavin’s thesis, ‘The Influence of leadership styles on employee job satisfaction and organisational performance’, suggests that the interrelationship between the leadership styles and employee satisfaction greatly contribute to either the turnaround or demise of a company. The study was situated in a Zimbabwean parastatal organisation, and surveyed 200 senior executives, managers, middle managers, supervisors, artisans and clerical staff. The strongest relationships between leadership styles, employee job satisfaction and organisational performance was found when leaders employed a participative or entrepreneurial or transformational leadership style.

Linked to the Leadership theme is the next theme of Organisational Performance. Four theses addressed this theme. Chigwada’s thesis, ‘Human error and organisational performance: the Zimbabwean Platinum Mine case study, postulated that contemporary approaches to risk management have not yielded the desired results, as injuries in the workplace remains prevalent, despite substantial investment by enterprises. The study sought to establish a fresh business philosophy with new social dimensions. Two models, namely the Kurima leadership and safety maturity culture model and the African Knowledge Building Concepts model were employed to infuse risk management practice, resulting in a significant reduction of workplace injuries.

The next thesis by Clarke, entitled ‘A critical review of the application of risk management systems within high risk industries’, continued with this theme. Risk management is seen to reduce the impact and consequence of workplace events, by preventing them and minimising their impact when they do occur. The aim of this study was to conduct a critical review of existing risk management systems and validate whether a relationship could be determined between their implementation in organisations, and actual risk management performance. In contrast with the previous study, this study found that there is a positive relationship between the implementation of risk management systems and a company’s risk management performance.

Another thesis by Mazibuko, entitled ‘Safety cultures within energy utilities: a developing socio-economic perspective’, continues with the theme of risk in corporations. Mazibuko’s thesis specifically addresses safety cultures in organisations. The aim of the study was to identify the major inhibitors that prevent the achievement of a safety culture, and the identification of an appropriate model that can be proposed for the implementation of a safety culture in the construction, operating and maintenance sites of an energy utility. Based on the analysis of interviews with 70 employees drawn from a range of sites, two existing models, namely a typology of organisational culture and a safety culture maturity model were modified, and a new model was developed to be introduced in large corporations such as energy utilities. It is believed that this model can be applied in other industries, such as the building and road construction industries.

The last thesis responding to this theme is Van Rooyen’s thesis entitled, ‘A critical review of the network infrastructure required to launch products to market: a Vodacom case study’. The main objective of this research was to identify the supply chain management concerns encountered in relation to infrastructure suppliers in the telecommunications industry. The study challenges the industry to provide greater network coverage to rural areas, and makes recommendations about how mobile network infrastructure can be extended to these areas.

The fourth theme involved Sustainability in various forms. The first thesis by Doma, entitled ‘Food insecurity and poor livelihoods: a Zimbabwean transformation case study’, explored the application of indigenous and exogenous knowledge as interventions to improve food security and nutritional status in a small village in Zimbabwe. It was found that some of the ‘conventional’ exogenous knowledge used in relation to drought and water-scarcity, could be enhanced by indigenous knowledge of the local population. One of the main recommendations stemming from the study is the inclusion of indigenous knowledge systems in school and university curricula which could lead to greater self-reliance and resilience.

The second thesis related to the theme of Sustainability is entitled ‘Application of Poverty, Ignorance and Greed (PIG) Paradox Model in analysing factors affecting the sustainability of trade at the Faraday Medicine Market in South Africa’. Jack-Pama developed a model with the quirky acronym of PIG, to determine which factors most influence the behaviour of traders, and the extent to which these behaviours impact the sustainability of their small businesses. The key finding was that ignorance (the ‘I’ in PIG) is the greatest threat to the sustainability of these businesses, especially as it relates to the collection and use of the medicinal material sold at the market and the impact that this may have on the market's
value chain. A strong recommendation to safeguard this kind of market is to conceive of a Sustainability Business Plan that will, in the case of the Medicine Market, involve the inclusion of the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plans within a biodiversity economy.

Muzenda’s thesis, entitled ‘Socio-economic transformation of African rural women for sustainable development: a case study of the Chivake Women in Gutu – Zimbabwe’, provides an excellent account of the humbling story of women from the rural Chivake community who transformed themselves from victims of poverty, to change agents. Through a participatory action research methodology, a spirit of self-reliance developed. The research highlighted the three key elements needed for transformation and sustainability in the community: self-awareness, linked with tacit knowledge, and support from family members, which enhances empowerment and emancipation of the women.

The last thesis linked to the theme of Sustainability is Nyashanu’s ‘Sustainable development through water conservation and community banking: a case study of the Nechavava in Buhera – Zimbabwe’. The study sought to establish how people in rural communities can be freed from the bondage of handouts, and to create their own sustainable livelihoods. The thesis is a significant contribution to the Garaviro Communiversity, which is now a centre for Integral African Wisdom in Nechavava.

The next four theses responded to the need for the final theme of Institutional frameworks in respect of three different educational contexts: school, college and university education and a support tool for survivors of intimate partner violence. The first thesis by Mparutsa, entitled ‘Statistics education for a developmental economy: the development of a coherent reasoning and thinking intervention’, aimed at identifying the cognitive levels of statistical knowledge attained by students as they progress through the secondary school. The purpose was to develop a teaching framework that will enable teachers to teach statistics in a manner that would enhance statistical reasoning and thinking.

Mutano’s thesis, entitled ‘A mobile learning framework for post-school education and training in South Africa’, investigated the phenomenon of mobile learning with the view to developing an implementation framework within the post-school sector. Making use of the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology, a proposed implementation framework emerged. The study indicated real potential for the use of mobile learning in the sector, but constraints may be felt as a result of unsuitable devices and an unwillingness on the learners’ part to accept mobile learning. Furthermore, to take mobile learning to scale, additional technical standards and appropriate infrastructure are needed to support mobile learning settings.

The third thesis that addresses the theme of Institutional frameworks is Stoltz-Urban’s ‘Non-traditional postgraduate student success: the development of an institutional framework’. The study investigated the challenge of student retention and success faced by higher education institutions within an African context. The research was undertaken in three African countries, namely Kenya, Zimbabwe and South Africa. The findings led to a systemic understanding of the non-traditional postgraduate students and their unique contexts and challenges, as well as the role of the institution and the role and impact of the academic supervisor. The study concluded with an institutional framework for intervention which could improve student success.

The final thesis is by Naidoo, entitled ‘Integral empowerment of survivors of intimate partner violence: African women rising’. The aim of the research was to develop an empowerment tool to serve the needs of survivors of intimate partner violence. The tool encompasses psychological and physical empowerment, but focuses more on the cognitive understanding of lived experiences of the survivors and economic empowerment. The Integral Empowerment Tool (IET) was tested at two shelters within South Africa. The process, content and impact of the IET was constantly evaluated by the survivors, shelter management and the researcher. The recommendations are based on the efficacy of the IET as an empowerment programme.

The Da Vinci Institute is proud of the excellent work undertaken by our doctoral students. We believe that they have paid tribute to the Da Vincian principle of ‘Sensazione’. We hope that our stakeholders and interested parties will enjoy reading the theses, and that the recommendations made by our new scholars will indeed make a contribution to a more sustainable society.

Dr Ronel Blom
Dean: Research
MESSAGE FROM THE ACADEMIC SUPERVISOR, PROF ALEXANDER SCHIEFFER
– Speech delivered at the President’s Dinner
A world worth living in – a future worth working for

SUPERVISORS AS ‘RENAISSANCE ARTISTS’

May I begin, not end, with an expression of joy and admiration that I feel on behalf of the outstanding accomplishments of our new PhDs. Chapeau! Well done! “Well done”

May I begin, not end, with an expression of gratitude to the leadership and staff of Da Vinci that provided the vehicle, the vessel, in which this success could be accomplished. Bravo!

May I begin, not end, with an expression of deeply felt satisfaction and pride on behalf of all of us supervisors who accompanied the new-born PhDs – from conception to birth. We loved it!

Transition Times:
At the occasion of this “transition rite” of welcoming our new PhDs into the academic Olymp, I would like to speak about the Transition Time we, as Humanity are going through – and about the new role that we as supervisors (and for our new PhDs as future supervisors) need to inhabit.

We are living through a dramatic transition time, perhaps the most dramatic one, humanity has ever faced.

Most of our social systems are undergoing massive crises – reason being that they have become irrelevant (at least in part) to the creation of sustainable pathways for humanity and the planet.

That goes for our economic system, our enterprise model, for much of our political and governance systems – and that goes – as South Africa is dramatically experiencing, for our education system. It includes the very design of the university.

What then is our role as supervisors in this transition time? How do we contribute to a new kind of university that becomes an enabler for a world worth living in, for a future worth working for?

Allow me to share, in all humility, but also in all urgency, few reflections on this question:

Let me begin by saying, that I never enjoyed the term “supervisor” – neither when I was “under supervision”, nor when I myself “supervised”. I would like hence to propose three alternative terms – framed in three claims.

Claim 1: The Co-creator: The future Supervisor as Co-Creator of knowledge-and-innovation
Knowledge is not a static thing, expressed in a thesis. Rather, it is a living process, arising in social interaction. The supervisor turned co-creator enables action research oriented processes that lead to innovation – and is an active participant in the knowledge creation process.

Such living co-creative processes need to be designed in such a manner that they support the future innovator to generate locally relevant knowledge and locally relevant practice, addressing one or more burning issues in his or her organisation or community.

To my mind, that is then also the way that each PhD student, each Masters, each Bachelor’s student, can contribute to the build up to authentic curricula – a key demand of many critics of South African universities, and elsewhere.

Claim 2: The Catalyst = the future supervisor as co-catalyst for innovation ecosystems
Social Innovation does not happen in social isolation. The supervisor-turned-catalyst becomes an enabler of knowledge and value creating fields. We call them
“innovation ecosystems” – a group of people and institutions working with and around the future innovator to jointly mirror the complexity of the task at hand, and to jointly strengthen the capacity for true innovation. Ecosystem means participation, and it is participatory research approaches that are key to bringing about large-scale societal renewal.

Working together in and as an ecosystem dramatically transcends the conventional supervisor-student relationship; it breaks down the inherent power logic from “power over” (supervisor) towards power with (I hear the voice of Paolo Freire in the background).

**Claim 3: The Guide = the future supervisor as process guide to the full inner potential of self and society**
True social innovation requires us to access the creative energies within our individual and collective heart and soul. This energy is needed to have the stamina and trust in oneself to bring forth an original contribution, against all odds.

Part of our new role is to function as process guides for future innovators to tap into their own rich inner creative resources as much as into the cultural sources and resources of their countries and cultures.

Unleashing the inner capacities for knowledge production and innovation is vital for a society’s ability to create its own meaning, its own future, and to contribute authentically to the world at large.

**Conclusion:**
In conclusion, and with the new roles I have mapped out – and with which we (Prof. Ronnie Lessem, myself and our Trans4m Community) actively experiment, you can see us supervisors – as Co-Creators, Catalysts and Guides, becoming true “Renaissance Artists”, in service of the wholesome renewal of society.

We thereby evolve the PhD (Doctor of Philosophy) into a PHD – a Process of Holistic Development (PHD).

Leading such renaissance processes of holistic development is exactly the role the great artist-engineer-inventor-innovator Leonardo da Vinci played – and it was he who inspired the name of The Da Vinci Institute.

That brings me to The Da Vinci Institute. I believe that Da Vinci is the right home for such new form of supervision. As a Mode 2 institution, and with its leadership, its people and its vision, it carries the potential to become a true Pathfinder and Pioneer in our Times of Transition towards new forms of education and university.

Da Vinci is based in Africa. Africa has a crucial role to play in the local-global Renewal we so desperately need.

It once was the cradle for the birth of humanity; may it now become the cradle for its rebirth. The longing, the cry, for such rebirth is already heard – it is out there, it is in here (pointing to room), it is in here (pointing to heart).

Yes, Africa has a huge role to play. In Steve Biko’s words: “The great powers of the world have done wonders in giving the world an industrial and military look, but the great gift still has to come from Africa – giving the world a more human face.”

The time for Africa to make this gift has come. Humanity’s survival depends on it.

I conclude with a poem of mine written for this occasion, dedicated to our shared mother: Africa
Africa, mother

Africa, mother
Cradle of life
Mysterious midwife
Of our existence

Africa, mother
Your cry demands silence
“Uri munhu here?” you ask
“Are you human?” and you add
“What have you done?
To me, to you”

Africa, mother
Teach us, once more
How to live, help us attune
To your sacred eternal rhythm

Africa, mother
Turn our hearts into drums
Beating joy, laughter, forgiveness
And spreading your message of peace on earth
MESSAGE FROM A MASTER’S STUDENT, ZAIN REDDIAR
– Speech delivered at Graduation
Wow! If you hold onto a dream long enough, and if you put in the required effort, it will be a reality.

This majestic building (Wits Linder Auditorium)! Renowned for its acoustic merits and home to celebrated cultural performances. Today, we are all characters in a prominent Da Vinci production.

I will indulge you a bit later, but let me first take this opportunity to congratulate all the graduates who endured much to reach this pinnacle in their studies. No doubt a proud moment for each of us. I am certain that today, you are as elated as I was when we were introduced to the purple cow drink. The colour purple has taken on a whole new meaning.

As we say in Sotho (yes, Ke na Sotho! / I am a Sotho! Do not let your eyes deceive you) “Ho hata kwekwe”; loosely translated, it means to walk gracefully. That is what today is about, the start of a graceful walk! To walk gracefully, you must walk with others…

If you ever paid attention, at the Da Vinci campus, there are four flags, which dance in the sky. These flags are hoisted at the opening of each academic year. They are public images, signs perceptible to the senses, an outward promise.

- The flag of our beautiful country, representing Da Vinci’s commitment to the bigger social system and to improve the lives of ordinary South Africans. I am but a living testament.
- The tt100 Flag, proudly part of the Da Vinci Institute, reveals the commitment to industry at large.
- The Da Vinci flag represents its identity as an institute of learning and being part of a bigger system and proudly contributing in the domains of management, innovation, technology and systems.
- The flag bearing the picture of the famous purple cow symbolises the commitment to diversity and the unique contribution of each person. I would still like to unpack how dealing with all the diversity seems almost effortless at Da Vinci, unless everyone is screaming behind closed doors, but from a user point of view, the level of individual attention pushes a net promoter score through the roof. Each flag represents something very special about the Institute. This at minimum is the delivery expectation of every student, without compromise.

One of Da Vinci’s deliberate strategies is to be a niche academic institution. This in itself brings an array of unique challenges in order to remain relevant. This is also what attracted most of us to Da Vinci as our academic institution of choice.

Da Vinci has created a unique student experience with superior learning support. In this digital age, they got something right. They seem to have realised that change takes time and so they created the perfect balance between the online student platform and access to a real human being whenever necessary.

Given that most students are professionals in various sectors of the economy, that means we already have a frame of reference, each a different history and experience.

Adult-based education is challenging on its own, but now there is the fine balance of delivering an academic grounding that will have some synergy with the student’s own reality.
Whether that be their career growth, their exposure, their family values and commitments, their social standing and status or their time constraints, if the learning experience is going to be rich, it has to be acknowledged. We don’t change who are, we don’t disrobe our attachments when we join Da Vinci, we come as a package and more often than not it is not a pretty package. Da Vinci’s willingness and courage to want to engage those differences and to transform them into a holistic learning experience is admirable.

This indeed was my own experience. I am not based in South Africa, I hold a senior professional role with a multinational, I have a certain status in society and I have my own ontology and of course my family commitments. I grew up in a predominantly child-headed household after my mum’s death at an early age and education did not have pride of place. Of course, financial constraints added to the adversity.

Michael Gladwell in his book The Outlier said that who you are cannot be separated from where you come from. My own life is not a fairy tale and there is nothing privileged about it. I just resolved to never give up.

All these played up at different points in my studies, but the interesting thing for me was that while everything else in my life was doing this, my academic support was constant. It never created additional pressure for me, in fact it enabled me. If anyone had insight to my path to the Master’s, be certain it was no love affair. My student experience however did not allow it to become a horror story either. There was just enough hardship to ensure growth and refinement.

The team was accessible to the highest level, every visit to the campus was a lifegiving family experience, the academic support was extraordinary, particularly in my context. This is much more than I had bargained for. The experience was phenomenal.

Being in multiple countries, the only thing that changed was my geography… the promise remained intact. Apart from everyone else who was always very helpful and gracious, there were six people who were the glue that kept things together for me: The man in the kitchen, he made sure he captured you as you cross the threshold; the receptionist, she was always interested, made an effort to remember you; the accounts lady who made sure that I am aware that I am paying, anything free in life has no value; then Prof Anderson’s PA who was always a live wire. If you are discerning enough you will realise that her being a social butterfly was actually the test to ensure that the user experience is being maintained. And the two most important people, the account manager and the assistant. Words cannot adequately describe their contribution. There was a golden thread, I just called it “Make Zain successful.”

It would be remiss of me not to acknowledge all the staff at Da Vinci at all levels for their individual and valuable contributions to the success of each person honoured here today. Given my line of work, I am both critical and often skeptical. I am very focused on the user experience and make no apology for high expectations.

I unreservedly can confirm that Da Vinci is managed and staffed by a passionate team of people who were committed to making this day a reality for each of us. The endless support, the unrelenting and unwavering commitment which helped get us here today is recognised and appreciated. I think it is aptly called a boutique. Speaking to fellow graduates, they hold a similar view.

The dictionary defines a boutique as an institution serving a sophisticated or specialised clientele. The boutique experience was present. The Da Vinci Institute, we salute you! You lived by the flags you fly high…

If you ever climb Ghale Rudkan in Iran, you will know that it almost seems impossible. At the top of this mountain in
the Gilan province sits a beautiful fortress. I am not even sure how they managed to build it up there because the way up is exhausting and very slippery. When climbing, it is almost a spiral so you cannot tell how far you have gone or how much more to finish. You meet people along the way and they tell you 20 more steps and so you climb. 20 steps later you are not there and you meet someone else who tells you 20 more. And this carries you until you reach the top. The thought of quitting does come to mind but you have already passed quite a way and the constant encouragement eventually pushes you to the top. That is what this Master’s journey felt like for me....

Fees must Fall is very topical at the moment. Hard work and vision are paramount. Whilst there are always different views, time should never be wasted. I too come from an underprivileged past and I have every appreciation for the rights of every person, but I am quickly reminded that Rosa Parks, the mother of the civil rights movement in the USA, in defiance took a seat on a whites-only bus, she did not burn the bus down.

The women who marched to the Union Buildings did so with great fervor; they always retained their decorum. They planted the greatest seeds of change. The universe will continue to unfold; let us take up our roles as positive change makers. Young people, you can never talk enough. If you keep talking the penny will drop. Keeping yourself uneducated is in my view a poor choice at any cost. Ignorance and arrogance cannot lead change. Use ke ka ipona ha tsà.

My three lessons I would like to share with you are, firstly, be a lifelong student. Never stop being curious. If we become happy with the knowledge that we have, then we are going to atrophy. So please, keep learning.

Second, whatever you do, do with full passion. Ensure that you do it with head, heart and hands and learn to coexist. When we approach anything in this fashion we begin to contribute to building society.

Lastly and most important, please help others rise above their situation. True greatness comes from what you leave behind.

It’s not where you come from but where you are going that matters, but never forget your own humble beginnings.

We who have achieved some level of growth have an obligation to pull others up. It is the only reason for our existence.

A leader who has not yet had this epiphany is really not a leader.

Moreover, as I stand here today, I would be almost negligent not to thank the lover of minds, Prof Anderson, for his instrumental role in my reaching this goal. His confidence in my ability was half the battle won… I never imagined this possible but then I am reminded of the great quote by Nelson Mandela, “It is impossible until it’s done” Prof Anderson was clear from the onset that the goalposts will not be relaxed but was true to his role as a person, as a member of society and indeed to the values and vision of this great institution called Da Vinci. Your actions have energized me to make a similar difference in the lives of others.

To Prof Anderson and all at Da Vinci, apart from academic achievements there have been so many others lessons along the way. You have made a sustainable difference to many lives. You have been truly inspirational. Thus, I commit to mirror your actions as I remain a mere pencil in the hand of God as he continues to write his beautiful love story to the world.

Keep building, stay beautiful!

khotso ba le uena!
5 MESSAGE FROM A PHD STUDENT, DR TIRHANI MABUNDA
– Speech delivered at the President’s Dinner
MESSAGE FROM A PHD STUDENT, DR TIRHANI MABUNDA
– Speech delivered at the President’s Dinner

Now that technology is a given, the human factor is the only differentiator for organisational competitive advantage

President of Da Vinci Institute Mr Edward Kieswetter;
Vice-President of Da Vinci Institute Professor Ben Anderson; Chairperson of Da Vinci Council Mr Sechaba Motseiela; Other Council Members present here;
Da Vinci Project Co-ordinators;
Fellow graduates, their spouses and partners; Invited guests;
Ladies and gentleman!

What an honour for me to address you on the eve of Da Vinci’s September 2017 graduation. Firstly, I would like to express my gratitude to Da Vinci for choosing me to represent my fellow graduates at this prestigious President’s dinner.

Ladies and gentleman, we gather this evening at a time when our beloved country is facing not one crisis, but multiple crises. The pronunciation of the word crisis sounds the same, but the spelling of multiple crises in my text is with an ‘e’, hence the multiplicity thereof.

Ladies and gentleman, I am sure your minds are already drawing lists of both the things we seem to be getting right as a country, and those we are messing up in a big way. And I bet you are battling to find things that are working outside of the judiciary, banking system and whatever else you have thought of. In fact, not all aspects of the areas you consider to be working are functioning optimally. For instance, the judiciary forms part of the broader justice system. And you will agree with me that elements of the justice system such as policing, the lower courts and correctional services, or prisons, are also in crisis.

Oscar Wilde once admonished that: “There are two tragedies in this world. One is not getting what one wants, and the other is getting it.” In our case, we so badly wanted to be liberated from the shackles of Apartheid and we got our wish in 1994. However, since then, it has been challenging to make this hard-earned democracy work. Despite its gallant efforts, South Africa’s democratic dispensation has failed in many areas including education, land reform, economic reform and social cohesion.

The problem with us in South Africa today is that too many of us who are enlightened, let alone the uninformed, are not speaking out. We have chosen to be passive in the affairs of politics and government, even when evidence points to society going astray. As Edmund Burke put it; “All that is necessary for evil to triumph is for good men to do nothing”. A similar quote attributed to Albert Einstein says, “The world is too dangerous to live in; not because of the people who do evil, but because of those who sit and let it happen”.

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Now that technology is a given, the human factor is the only differentiator for organisational competitive advantage
Ladies and gentleman, democracy should not only be about holding regular elections, but it should most importantly be about active citizens who set performance targets for the governing elite and hold them to account. Maybe it is about time we started doing that.

Anyway, enough about politics. I have no intention; either to become a politician or to join the current presidential race of eight candidates and still counting. However, you will agree with me that the staggering number of presidential hopefuls is a crisis in itself. So, since I have no intention to enter the SA Inc presidential rat race as Bob Marley would call it, that’s where I’ll leave my political speech.

Instead, I’d like to speak briefly about something positive. Amidst the crisis I alluded to earlier, there is a beacon of hope called The Da Vinci Institute. Since I came across Da Vinci in 2009, I’ve been fascinated by its Mode 2 approach to knowledge co-creation. Da Vinci’s website defines Mode 2 as knowledge production in the context of applications, transdisciplinarity, heterogeneity and organisational diversity, enhanced social accountability, and a more broadly-based system of quality control.

Ladies and gentleman, had it not been for the motivation of pursuing academic knowledge with the objective of making a meaningful and practical contribution, I would not be a PhD graduate today. There is no way I would have pursued Mode 1 academic study which is mainly an end in itself. For me, and many of my fellow graduates here, Da Vinci’s ‘fit for purpose’ programme was an attraction.

The Institute’s innovative and integrated approach to managerial leadership development is based on the principles of post-module assignments and research projects, use of the workplace case study approach as the fundamental learning process, a nd application of action learning which encourages candidates to take experiences from environments very different from their own and to ‘laterally link’ the learning to their own environment.

In addition, Da Vinci’s focus on the management of Technology, Innovation, People and Systems (The TIPS™ Model) enhances organisations that strive to be globally competitive. Da Vinci understands that globally competitive organisations require leaders and managers who have a profound understanding of the complexities of managing an environment in which technology, innovation and people have a pervasive impact on competitive advantage. By integrating the TIPS™ framework, Da Vinci strives to produce people who demonstrate behaviours of engagement, alignment and agility in co-creating new workplace realities with students and sponsors.

Ladies and gentleman; the challenge of living in today’s super-connected 21st century is that globalization and the IT revolution have erased boundaries, broken down nationalities and connected the previously disconnected. And now that technology is a given, the only differentiator is the human factor, including soft issues such as critical thinking, creativity, inspiration and imagination. Only people who add value by doing something unique and irreplaceable stand a chance of making the real difference in sustaining organisational growth and competence. These are people capable of challenging the status quo by inventing new products or by re-engineering existing ones.

On behalf of my fellow graduates, I would like to express our gratitude to The Da Vinci Institute for the opportunity to pursue academic studies contributing towards the resolution of practical problems using a cooperative framework which integrates learning within the work environment, taking cognisance of the socio-economic context of its students and society.

I thank you.
6 | RESEARCH AND POST GRADUATE OFFICE
7 | INSTITUTIONAL RESEARCH OUTPUT

NQF LEVEL 10
ADEJO, Jubril Adedoyin

Integral banking - enabling communipreneurship towards co-creating sustainable livelihoods for the common good in Nigeria: The case of the Ajegunle Community

This study came about in response to the dysfunctionality of the banking system in rural Nigeria, focusing on rural indigenous (informal) communities.

The objectives of this study focused on co-creating a scalable, integral banking methodology that will enable access to sustainable development for the common good of the underprivileged and marginalised communities in Nigeria and Africa at large. The aim is to demonstrate that “communipreneurship”, within both the formal urban communities and marginalised informal rural communities can be harnessed for the common good of Nigeria.

The Integral Worlds Research philosophy was applied, following the eastern path of renewal, building on the narrative method, hermeneutics methodology, critical theory research method and co-operative inquiry as action research. This approach took indigenous cultural values and rituals into account. As societies in transition, African countries need to re-invent and transform themselves by reconnecting with indigenous knowledge sources and acknowledging the exogenous world-view knowledge, rather than “be developed” by others.

The 4Cs and CARE trajectory models were used. The core objective of the two models is to ensure that the new concepts co-created are tested and imparted within a context, in this case Heritage Bank Plc (the researcher’s workplace) and Ajegunle (the researcher’s activated community).

The 4Cs and CARE represent: the Calling of self, the organisation and society to adopt the tenets of the narrative method, leading to Ajegunle community activation in collaboration with the Centre for Values in Leadership and Centre for Integral Social and Economic Research.

The context is built on the hermeneutic interpretation of contextual imbalances (ie transdisciplinary, transcultural, transformational and transpersonal imbalances), leading to the awakening of the ecosystem comprising the Centre for Integral Social and Economic Research, Heritage Bank Plc, Centre for Values in Leadership, and Ajegunle community.

Co-creation was built on the tenets of critical theory in order to navigate and uncover multiple connections in different worldviews on the theories of entrepreneurship, anthropology, psychology and banking.

The final C, contribution was attained by building on the four stages of cooperative inquiry to critique the practicality of the new concepts in the community of Ajegunle.

Through the research-to-innovation journey, new views of banking, finance and entrepreneurship for the common good were co-created. The new views are Integral Banking and Isejoseneurship (Communipreneurship).

In testing the desired impact of the two concepts, a cooperative inquiry group (CI group) was formed, consisting of 12 people from Heritage Bank, Centre for Integral Social and Economic Research (CISER), the Ajegunle community and the Centre for Values in Leadership. The CI group underwent the four stages of Heron’s knowing, from experiential, to imaginal, propositional and practical, toward an embodiment of transformative education for CISER.

Academic Supervisor: Prof A Schieffer
Field Supervisor: Prof R Lessem
Ethics is not only essential for leaders but in fact, defines leadership (Ciulla, 1998). The importance of ethics is captured in the practices of responsibility, and accountability. Leaders are responsible for ensuring that ethical conduct is practiced and that unethical behaviours, ‘no matter how subtle, no matter how private’ are not (Penney, 2001).

According to the South African National Defence Force (SANDF) Service Guide for Officers (1997), maladministration and corruption are the most important manifestations of unethical conduct in the public sector. This research is an investigation into the execution of ethical leadership practices within the context of the South African Navy (SAN), as a sector of the SANDF, specifically dealing with how the Admiralty (i.e. the strategic decision makers/leaders) of the SAN, without prejudice and/or the influence of politics, religion, and/or culture, on a day-to-day basis leads in ethically sound leadership practices.

For the purposes of this research, the researcher has decided on the following research question: To what extent do ethical considerations play a role in the selection of future Admirals, in the SAN?

The main purpose of this research was to highlight areas of ethics and leadership concerns to the Admiralty in order to assist the SAN in inculcating ethical practices and ensuring ethical leadership succession to secure the SAN’s future by inspiring the conduct of military professionals toward supererogatory behaviour.

This research was limited to a sample of Captains; that is the Senior Staff Officers (SSOs), which is the feeder pool for promotion to Admiral. The sample comprised 20 Captains, all of whom had held their rank for a period of at least two years.

From the findings of the research, it is clear that many of the respondents have a common and sophisticated understanding of both ethics and leadership, as reflected. However, irrespective of the respondent’s previous force affiliation and/or gender, the respondents indicated that the perception exists that the Admiralty is not ethical in their day-to-day conduct. Further, the research revealed that race, tribalism, gender and qualifications (or lack thereof) are worrying aspects seemingly taking precedence over ethics and leadership suitability in promotions to Admiral.

The Admiralty is entrusted to lead and manage the organisation (SAN), and as such ought to be the ‘finest of the finest’, be willing and able, be mentally and physically capable to lead and manage the organisation, both in times of economic prosperity, recession, and war (as this tends to be the time that true leaders reveal themselves). This research details various recommendations for the SAN to ensure ethical leadership.

The SA Navy is a national asset to us all. Implementation of the recommendations of this research could go a long way towards ensuring that this asset is preserved for generations to come.

Academic Supervisor: Dr P Parsons
CHIGWADA, Abednego Kholwani Bayne  
*Human error and organisational performance: The Zimbabwe platinum mines case study*

The research uncovers imbalances related to human error in operational risk management by providing solutions embedded in the African culture of Ubuntu. The strategic perspectives of business, people, systems and technology and innovation management models for operational risk management were considered. Contemporary approaches to operational risk management have not yielded the desired zero harm status as injuries in the workplace are prevalent, despite huge investments by enterprises.

The envisaged zero harm goal and reduction in human error call for the establishment of a fresh business philosophy with new social dimensions. This thesis presents an integral framework of two models, the Kurima leadership and safety maturity culture and the African Knowledge Building Concepts (AKBC) - Usaputsa Chirongo, models. The models infuse exogenous and indigenous knowledge systems to bring to the fore new tested models that have assisted a mining house in Zimbabwe to sustainably attain zero harm status.

The co-researchers from the Zimplats operations team embarked on a healing mission to remedy the ills related to human error. They used the spiralled research journey of descriptive grounding, phenomenology emergence, navigation through feminist critique and effecting the research outcomes through transformative action-engaged, participative research processes. The innovation research framework and transformative integral approach, guided by humanism and holism, revealed a lack of socio-economic and spiritual depth in conventional human error models. Creative synthesis between cultures and between local (indigenous) wisdom and global (exogenous) knowledge was one of the cornerstones of this trans-cultural approach, the others being: fusing one discipline with another (trans-disciplinarity), fusing the individual with the community, and fusing the past with the future.

The 4Cs approach (Call, Context, Co-Creation and Contribution) was employed in line with the Da Vinci guidelines on an integral approach to research and innovation, with a view to supporting transformation in the Zimplats-Mhondoro mining community. This research sought to contribute towards the transformation of Zimplats as a business in Zimbabwe through the development and implementation of new models, making the organisation a zero harm operation and a leader in operational risk management.

*Academic Supervisor: Dr JP Muchineripi*  
*Field Supervisor: Dr TS Rushesha*
CLARKE, Vaughan Ivan

A critical review of the application of risk management systems within high-risk industries

Risk management attempts to reduce the impact and consequence of events, by preventing them and minimising their impact when they do occur. Implicit in this is the identification of hazards, assessment of the risk, development and implementation of mitigating controls, and review of their effectiveness.

The aim of the study was to conduct a critical review of existing risk management systems and validate whether a relationship could be determined between their implementation in organisations, and actual risk management performance. The underlying assumption was that risk management programmes resulted in improved risk control measures, which in turn may result in improved risk management performance within an organisation.

The research was conducted within a systems-thinking framework, as the underlying conceptual approach was to assess whether risk management systems have any causal impact on a company’s risk management performance.

A single research method was thought inadequate to validate the statement. The researcher’s belief in an underlying de facto risk management theory and value systems, required validation prior to assessing whether its introduction impacted positively or negatively on risk management performance.

In line with the stated aim and objectives of the study, a combination of quantitative and qualitative design was selected. Quantitative research consisted of a survey combined with correlational analysis, while case study design was used for the qualitative component.

The specificity of the objectives resulted in concurrent research activities. These included the development and performance of two surveys and 16 case studies and correlation analyses.

Objective 1, which was to prove that risk management systems were perceived to be beneficial to a company’s risk management performance, was achieved, based on the survey results.

Objective 2 assessed the extent to which a causal relationship could be determined between implementation of risk management systems, and actual risk management performance. This could not be proven through the case study and correlation analysis.

Objective 3 was to determine whether a reduction in injuries and or fatalities followed the introduction of a risk management system.

Objective 4 centred on the question of whether companies implementing risk management systems, demonstrated risk management performance above that of their industry sector. This was proven by the case study and correlation analysis.

The recommendations suggested that improved risk management performance could be achieved by synergising and aligning current risk management system implementation efforts. The following tools should be used sequentially to improve the structured use of risk assessments:

- Using a risk maturity approach in conjunction with a tracking tool to monitor effectiveness
- Monitoring the effectiveness of the implementation.

Academic Supervisor: Prof B Anderson
DOMA, Takaiwama
Food insecurity and poor livelihoods: A Zimbabwean Transformation case study

This learning journey commenced in 2011 and sought to mitigate the effects of drought-causing climate change, while also finding solutions for “production of more food with less water”.

The study explored the application of appropriate indigenous and exogenous knowledge as interventions to improve food and nutrition status in Africa. It centred on a case study of Madawa village in Mutoko, Zimbabwe.

The journey was in four parts, comprising the 4Cs of call, context, co-creation and contribution.

Exogenous knowledge applied particularly to conservation agriculture and drip irrigation. These were not new technologies but were tedious, laborious and time-consuming to use. Thus, the research team sought to reduce the drudgery associated with these technologies.

The co-researchers used integral research to renew the two technologies. Integral research consists of four main research paths, each linking Call to Context. The four paths are the Southern Relational Path, Eastern Path of Renewal, Northern Path of Reason and Western Path of Realisation.

The Southern Relational path undertaken entailed the use of descriptive methods, phenomenology (emerging through bee keeping and tree planting in 2013), feminism (navigation took place and the mutsago headrest theory was done in 2014). Participatory action research entailed transformative action in the form of solar drip irrigation and conservation agriculture. The Eastern Path of renewal’s focus was cooperative inquiry (CI). This came about as a result of numerous groups forming. The year 2015 onwards was the period of effecting and universalising.

Data was gathered through self-immersion within communities such as the Mutoko community.

One of the main recommendations stemming from the study was the need for curriculum change at schools and universities in Zimbabwe, so that the programmes offered encourage creativity, innovation and self-reliance in agriculture and other economic endeavours, building an ethos of resilience in the face of climate change and water scarcity.

Academic Supervisor: Dr SM Kada
Field Supervisor: Dr JP Muchineripi
The focus of this study was to establish which of the three selected factors of Poverty, Ignorance and Greed influenced the behaviour of the traders at the Faraday Traditional Medicine Market (FTMM) with regard to the sustainability of their business operations.

It has been reported in other studies on the FTMM that traders there do not operate their businesses in a sustainable manner. However, no clear reasons have been given for such an observation. The objective of this research was thus to establish which of the three factors influences the behaviour of the traders and how this could be addressed to improve the sustainability of these businesses.

This study used a mixed method research approach, consisting of focused discussions with the various stakeholders, observation of trading activities at the market, review of published reports and a survey. A questionnaire was developed and administered to a random sample of 22 percent of the 220 traders who operate at the FTMM. The Chi-square statistical test was used to analyse the data and test the research hypothesis. Forty-nine traders were interviewed. Data from the survey and other sources was integrated with the model for this study.

A model termed the PIG Paradox Model was developed where (P) represents Poverty, (I) Ignorance and (G) Greed. An equilateral triangle with a circle in the middle represented an equilibrium position where none of the three factors were dominant, representing Sustainability of the traders’ businesses. The PIG Paradox Model was integrated with the survey results and it was found that the inner circle (S) representing Sustainability was reduced by about eight percent as a result of the increase in (I). Therefore, the PIG Paradox Model confirmed that the dominant factor, Ignorance, had a significant negative impact on Sustainability (S). The quantification of the impact of Ignorance is critical in the formulation of interventions by the authorities.

The study thus concluded that ignorance of sustainable methods of doing business among the traders compromised the continuity of the trade in traditional medicines at the FTMM. The model demonstrated that the lifespan of the trade would be negatively impacted by about eight percent if there was no intervention at local, provincial and national levels. The traders should be trained and capacitated in sustainable business methods in order to extend the socio-economic benefits to future generations.

Another finding was that an overlap existed between Ignorance and Greed. The integration of the PIG Paradox Model with the survey results enabled the quantification of the impact of Ignorance on the Sustainability of trade at the market. Quantification of impact on the sustainability of trade is one of the most useful characteristics of this study.

The researcher observed that the FTMM needed government support in terms of policy and regulation as it is a significant player in the local economy of Johannesburg, as well as the rural supply areas.

The business operations of the FTMM should be transformed in line with the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP) and the Department of Environmental Affairs’ Biodiversity Economy Strategy (BES). This would require the development of a Sustainability Business Plan (SBP) to coordinate the activities of the various stakeholders within the market’s value chain.

Academic Supervisor: Dr J Dickinson
Field Supervisor: Dr M Matsabisa
Entrepreneurship as a catalyst for enterprise development in South Africa: Towards the development of an institutional framework for intervention and support

While small and medium enterprises (SMEs) are heralded as engines of economic growth and job creation in both developed and developing countries across the world, this has not necessarily been the case in South Africa. Entrepreneurship is not thriving in South Africa, and enterprise development is not sustainable, although government has invested substantially in the development of SMEs and job creation since 1994.

Apart from low entrepreneurial activity, the challenges of unsustainable enterprise development in South Africa include a high start-up failure rate and a low transition rate from small-to-medium and from medium-to-large enterprises. Seemingly, the lack of impact in sustainable enterprise development is because current policies and programmes in South Africa are focused largely on stimulating entrepreneurship and entrepreneurial business activity. Little attention is paid to later stages in the development of SMEs. In view of the poor performance of start-ups in South Africa, the study explored the need for alternative policies to stimulate enterprise development – not only during the difficult birthing stage of SMEs, but also with the management skills they require to overcome failure and promote their sustainability during their transition from small-to-medium and from medium-to-large enterprises.

Given the low rate of entrepreneurial activity in South Africa, the study also questions whether all business owners are entrepreneurs. Other questions posed are: Do current government policies and programmes serve their intended purpose of stimulating entrepreneurship and supporting the development of SMEs? Is there a potential model, which the government can adopt to stimulate entrepreneurship, develop sustainable SMEs and create jobs? To answer these questions, an explanatory qualitative study was conducted.

Four opportunity (high-impact) entrepreneurs were interviewed, using a semi-structured open-ended questionnaire. The collected data was transcribed and thematic content analysis was conducted to identify the emerging themes. The results were then analysed and interpreted, and the study’s implications and contributions were discussed.

The research findings reveal that South Africa’s current SME policies and programmes may be ineffective as they are biased towards the development and support of start-ups and necessity entrepreneurs, which are prone to high failure and tantamount to self-employment.

The study concludes that there is a need for a new alternative SME development and support model – hereby coined “enterpriseneurship”. The thrust of this model is to strengthen existing high-impact SMEs by scaling them up and replicating their already successful businesses. The study posits that the implementation of enterpriseneurship is likely to counter the current high failure rate of start-ups by fostering the creation of sustainable business enterprises, thus facilitating the creation of sustainable jobs and reducing poverty and inequality through inclusive economic growth.

Academic Supervisor: Prof R Chinomona
For energy utilities to transform the behaviours and practices of their employees to support a culture of safety performance, they will have to adopt a framework that places safety, change and transformational leadership at the centre of initiatives for entrenching a safety performance culture.

Using Fleming and Lardner’s (1999) safety culture maturity model as a theoretical framework, this thesis diagnoses the effectiveness of the strategies used for enhancing a culture of safety performance in energy utilities. The aim is to identify the major inhibitors and the appropriate model that can be suggested for improving the implementation of a safety culture in the construction, operating and maintenance sites of the selected energy utilities.

The interview findings from 70 employees drawn from the sites of different energy utilities in Limpopo Province were thematically analysed. This analysis revealed that the strategies for the implementation of a safety performance management culture among the employees are often modelled on initiatives that shape employees’ attitudes, perceptions and behaviours, safety competencies, motivators (pecuniary and non-pecuniary motivators), and safety leadership.

Most of the sampled energy utilities seem to have made significant inroads towards embracing and encouraging an appropriate level of safety performance culture. Even so, empirical findings still indicated that it can be challenging to use a transformational approach to instil a culture of safety performance.

The challenge of managing change and transformation critical for the implementation of a safety culture was common to most energy utilities. Besides poor communication and coordination of activities, the findings also revealed poor monitoring and evaluation of employees’ compliance with the relevant safety improvement measures.

Despite such challenges, theoretical comparison and empirical findings showed that effective safety culture management impacts positively on organisational performance.

An effort was made to influence behavioural change and transformation to enhance the development and entrenchment of safety culture in energy utilities that struggle with this. For this purpose, Westrum’s (2004) typology of organisational culture and Fleming and Lardner’s (1999) safety culture maturity model were modified and a model was developed for energy utilities to adopt with a view to improving the implementation of a safety culture. However, there is scope for future studies to explore how the model can be used in industries and sectors such as building and road construction.

**Academic Supervisor: Dr R Candy**
The emerging importance of statistical knowledge has led to statistics being introduced into school curricula internationally. South Africa, recognising this importance, has also introduced statistics into the secondary school system.

The introduction of new and unfamiliar topics in a curriculum is often accompanied by a variety of challenges. The challenges that most schools face, in South Africa and internationally, is providing teachers who are able to effectively teach for the development of statistical understanding, rather than merely doing some calculations.

The purpose of this study was to identify the cognitive levels of statistical knowledge that students attain as they progress through the secondary school system, and then develop a teaching framework to help teachers approach the teaching of statistics in a manner that would enhance statistical reasoning and thinking.

A mixed methods methodology was used in this research. Data collection was done in two stages. The first stage involved quantitative data collection. Three written assessment instruments (one each for Grades 10, 11 and 12) were developed, checked for reliability and administered to about 400 learners. The objectives of these instruments were to establish concepts and skills that learners had successfully mastered concepts that they had been unsuccessful in and concepts that they had failed to apply successfully.

Data analysis was done and 13 students were selected for interviews, representing the second stage of data collection. The interviews provided qualitative data for the study. Deeper insight into students’ understanding and misconceptions was obtained during the interviews.

The results of the study showed that most learners only managed to achieve the lowest of the statistical cognitive levels, statistical literacy. This cognitive level does not equip learners with tools to reason and think statistically. The results also revealed that learners used formulae to learn statistics, without understanding their foundation.

Modern technology makes calculations instant and more accurate, minimising the importance of the ability to perform manual calculations. This implies that the focus on statistical knowledge should be on reasoning and thinking. From these results, it is recommended that statistics teaching that enhances development of reasoning and thinking needs to include the importance of context, computing, comparing, contrasting and connection between statistical concepts.

**Academic Supervisor: Dr M Glencross**  
**Field Supervisor: Dr S Sproule**
Leadership, employee job satisfaction and organisational performance have been widely debated worldwide, with numerous perspectives being postulated. The interrelationships of these exogenous and endogenous variables have probably contributed to the turnaround and demise of many industries. This study explored the impact of leadership style on employees’ job satisfaction and organisational performance, with particular reference to ZESA Enterprises Private Limited, a subsidiary of ZESA Holdings Private Limited in Zimbabwe.

A number of studies have been conducted in various sectors of the Zimbabwean economy with respect to these exogenous and endogenous variables. However, it seems no overarching study has been done in an emerging economy such as Zimbabwe to critically look at why parastatals fail to perform even with all kinds of support. This thesis sought to examine the interrelationships between leadership styles, employee job satisfaction and organisational performance and how they interact with each other, which could negatively affect the performance of the organisation for the period under study.

The research study adopted a quantitative approach: 200 survey questionnaires were distributed to senior executives, managers, middle managers, supervisors and artisans, including clerical staff, resulting in a 53% response rate.

Descriptive statistics and structural equation modelling Smart Partial Least Squares (PLS) statistical software was used for data analysis. Confirmatory Factory Analysis (CFA) was used to check model fit, reliability and validity of measurement instruments, while Path Modelling (PM) checked model fit and was used for hypothesis testing.

The study found that the hypothesised statement between participative leadership style and employee job satisfaction was supported and significant. Autocratic leadership style and employee job satisfaction was supported but not significant, while entrepreneurial leadership style and employee job satisfaction was supported and significant. Management leadership grid style and employee job satisfaction was rejected and insignificant, but transformational leadership style and employee job satisfaction was supported and significant. Similarly, transactional leadership style and employee job satisfaction was supported and insignificant, as was employee job satisfaction and organisational performance. It is hoped that the findings of this study will contribute to management practice and theoretical discourse by correspondingly informing practice and guiding future research endeavours.

Academic Supervisor: Prof R Chinomona
The overarching purpose of this study was to investigate the phenomenon of mobile learning with a view to designing a framework for its implementation within the post-school sector.

The study was premised on the observation that while society has experienced transformational changes due to people creatively using mobile phones, their use has been more limited in education, particularly tertiary education. There are some 60 million subscribers in South Africa and 700 million in the rest of Africa presenting numerous possibilities for education.

Researchers in South Africa suggest there are not enough opportunities in the Post-School Education and Training (PSET) sector, and that more institutions need to be built and equipped.

Other researchers and policymakers have advocated for the introduction of alternative learning systems such as distance learning, electronic learning and mobile learning to extend the PSET sector.

Several studies have been conducted on the consumption of information technology. However, there is a discernible absence of a study aimed at the development of a framework for mobile learning implementation.

In this thesis, mobile learning is contextualised as a combination of systems and processes for learning “at any time anywhere”. In the search for new knowledge, the study considered the following objectives:

- To investigate the factors that influence the adoption and implementation of mobile learning environments for the post-school sector
- To establish the relationships that exist between learning contexts, the activities of the learners and facilitators, and the mobile technology medium
- To identify factors that may influence the design of a mobile learning implementation framework
- To validate the developed framework for mobile learning implementation.
To generate knowledge related to the objectives above, two theories were used to develop the hypotheses for investigation: the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT).

The study takes the form of three investigations: learners’ preparedness for mobile learning, learners’ acceptance of mobile learning and validation of the developed framework.

While the available literature contends that mobile learning has the potential to positively affect learning aims, bottlenecks may be encountered, such as lack of infrastructure, poor readiness and little regard for novel technologies.

There are few documented procedures for enhancing the structuring plans and decision-making around the implementation of mobile learning for the PSET sector. Theoretical frameworks exist for the use of mobile learning, but these are limited in their ability to guide implementation efforts.

Quantitative techniques used for the study include a three-part investigation into learners’ readiness for mobile learning, acceptance of mobile learning and the assessment of the proposed framework for mobile learning implementation. The software Statistical Package for Social Sciences (SPSS) was used to analyse the collected data.

The data showed that learners’ technological devices may impact on their interactions with mobile learning and that a considerable number of learners were not ready to implement mobile learning, even though there was a willingness to learn.

Additional technical standards and appropriate infrastructure are needed to support mobile learning settings in post-school education and training institutions.

Learners and facilitators at the Institute for Advanced Learning (IALE) assessed the proposed framework. The results from this conclusively identify the pre-implementation and post-implementation aspects of mobile learning. These include cost-effectiveness of solutions, availability of appropriate mobile devices and the provision of compatible applications, among others.

Academic Supervisor: Dr B Kalema
Marginalised and often taken for granted, women have been the backbone of most rural communities both in pre- and post-independent Zimbabwe. This thesis recounts the humbling story of women from the rural Chivake community who transformed themselves from victims of poverty to change agents. Through a collaborative effort, they formed a co-operative to pool their resources and talents for a common purpose.

Kutambura Huda, which literally means "poverty is a choice", was the initiative they embarked on to transform their situation. Together with the researcher, acting as facilitator, they set out on this transformative journey of women empowerment and emancipation.

The women were encouraged to tap into sources of knowledge available, including indigenous knowledge, their own talents and knowledge from institutions such as Agritex and the Ministries of Women’s Affairs and Cooperatives. The women defined how they were experiencing the phenomena of poverty as they sought to find solutions to the challenge.

They were then exposed to the researcher’s organisation, Chindito Farm, where modern technology is used. They were also exposed to other communities in transformation, such as Chinyika.

Finally, the women and the researcher co-researched, co-evolved, co-created and co-developed integral knowledge, using the GENE Four Worlds Approach as proposed by Lessem and Schieffer 2010. In this phase, through participatory action research, the ecosystem mobilised available resources for self-reliant development. Through the different projects undertaken and the resultant knowledge acquired in the process, there was a notable transformation of the social reality in the Chivake community.

This mobilisation of available resources for self-reliant development was also in line with the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset) thrust. Three of the four clusters of the ZimAsset programme had a direct effect on the study: the Food Security and Nutrition Cluster; Social Services and Poverty Eradication Cluster and the Value Addition and Beneficiation Cluster.

The women became their own change agents within the community as they showed resourcefulness by seeking alternatives when they faced hurdles in their activities. The spouses became more supportive and allowed the women to freely proceed with their projects. Other women from the community also started to mobilise themselves into their own self-help groups.

The research highlighted the three important aspects that were behind the successful transformation of the women: their passion, their knowledge and the support of their spouses and other sources. These three pillars resulted in the “Womancipation” model, which formed the first steps in the empowerment and emancipation of the women, who continue to seek knowledge that will enable them to eradicate poverty in their community.

Academic Supervisor: Dr SM Kada
Field Supervisor: Dr JP Muchineripi
The focus of this research was the impact that integral empowerment could have on survivors of intimate partner violence (IPV).

The thesis has an Afro-centric and feminist grounding. Framed by this, the process of thesis, antithesis and fusion was used to interrogate the researcher’s life and the field of IPV. These learnings were integrated into a freshly evolved perspective and led to the development of a contemporary African and feminist research methodology, the Integral Empowerment Methodology (IEM), the tenets of which include:

• Unearth what is required to honour love for self, other and community
• Use the African Feminist (AF) foundation of trust, care and affirmation to engage in the Western Feminist (WF) process of reflection, by coding and decoding our lived experiences
• Bring about psychological and cognitive emancipation via critical analysis of self, environment and culture
• Actualise economic and physical empowerment via pragmatic, practical and realistic action steps

The IEM led to the development of the Integral Empowerment Tool (IET) that was crafted to meet the specific needs of IPV survivors residing in places of safety. Although this espouses psychological and physical
empowerment, the IET focused primarily on the cognitive understanding of lived experiences of survivors, via reflective sessions, and the economic empowerment, via skills development sessions. The rationale was based on the psychological and physical needs of the survivors being catered for by the shelters.

The IET was tested at two shelters within South Africa. The process, content and impact of the IET was constantly evaluated by the survivors, shelter management and the researcher. The recommendations are based on the efficacy of the IET as an empowerment programme.

The ethos of the IEM, if honoured, allows the survivors to fully engage and hence achieve varying levels of empowerment
• The reflective sessions were found to be immensely valuable especially when combined with pertinent questions
• The root-cause analysis allowed survivors to understand how they could attempt to break the abuse cycle, by reframing gender stereotypes for their children

The following are some of the critical issues faced by survivors who have recently extricated themselves from abusive situations and could aid in future IET programmes and research:
• The most significant impacts of the various types of abuse are feelings of helplessness, hopelessness, fear and low self-esteem
• Many believed that had they been economically empowered they would not have stayed in the abusive relationship
• A common thread through the women’s stories was the lack of support from their mothers
• Although solace was sometimes sought in religion, both culture and religion enforced patriarchal beliefs and behaviours
• Education specifically addressing patriarchy, equality and gender-based violence is critical to break the cycle
• It is imperative to conduct a root cause analysis to address the impact that patriarchy has on perpetuating IPV.

Additional findings highlighted that the financial resource constraints faced by shelters impacted the services offered to survivors.

The success of the IEM has led to it forming the framework within which the researcher’s company, Sansara, will conduct its future work in socio-economic development, encompassing the empowerment of women in many guises. These include various evolutions of the IET, such as working with entrepreneurs and establishing a Pan African Women’s Entrepreneurship Fund.

Academic Supervisor: Prof A Schieffer
Field Supervisor: Prof R Lessem
It is now 37 years since Zimbabwe gained independence from British colonial rule. The rural people are still seen in townships waiting to receive food donated by well-wishers. There seems to be no hope of economic freedom even though the people have gained political independence.

The research sought to establish how people in rural communities such as Nechavava can be freed from the bondage of handouts and create their own sustainable livelihood, which they can pass to the next generation as their legacy.

The Researcher followed the Southern Relational Path, using the Nechavava community as the research community, and worked closely with the local community leadership. The research was contextualised following the 4Cs framework, which stand for Call, Context, Co-creation and Contribution. It worked in parallel with the CARE approach, which stands for Catalysation, Activation, Research-to-innovation and Education. The end product was the contribution to the Garaviro Communiversity, which is now a centre for Integral African Wisdom in the Nechavava community, Zimbabwe.

*Academic Supervisor: Dr JP Muchineripi*

*Field Supervisor: Dr SM Kada*
Rapid advancements in communication technologies have transformed the way banking is done around the world. Gone are the days when banking was confined to brick-and-mortar branches; digitalisation has given rise to branchless banking that provides access to banking services from anywhere and at any time.

Within South Africa, the central bank has licensed the first fully digital bank called TYME Bank, which is owned by the Commonwealth Bank and will offer banking services via digital platforms such as mobile phones and kiosks. The digital platform is being set up by BPC Banking Technologies, the third largest electronic payments company in the world.

In recent times, mobile-based payments have become prevalent in a number of African countries and mobile money services have been successfully launched in rural communities. This study used a quantitative approach to understand the growth of mobile money services in rural communities in Zimbabwe.

After a literature review, a conceptual model based on extending TAM was proposed. A total sample size of 2,000 participants was selected and data was analysed using SmartPLS (Structured Equation Modelling) and SPSS statistical tools. Data was collected using a questionnaire.

Many scholars in the USA and Europe have come up with models and theories that seek to explain the adoption behaviour of new technologies within their countries. The applicability of such models and theories within the African context has always been subject to debate as prevailing conditions in Africa are not comparable. This study sought to validate behavioural determinants within the African context.

The study proposed using a new model to explain the adoption of mobile money services within rural communities in Zimbabwe. This model is potentially applicable to other rural communities in Africa.

Data was gathered from a sample population, which was used as the basis for validating the proposed model. The proposed model saw the addition of the following constructs to TAM: relative benefits, convenience, social norms/influence, perceived risk and cost.

From the findings, perceived usefulness, perceived risks and costs are all supported but are insignificant since the t statistics are less than 1.96. Finally, behavioural intention is strong and supported since both the t statistics are above 1.

The results confirmed an association between Behavioural Intention and Mobile Money Service Use. Moreover, the results indicate that Behavioural Intention is positively related to Mobile Money Service Use in a significant way.

An understanding of the proposed model could help interested stakeholders in coming up with mobile money services which are fit for purpose and conform to targeted market characteristics.

**Academic Supervisor: Prof R Chinomona**
The study investigated the challenge of student retention and success faced by higher education institutions worldwide, from an African perspective. The study focused on three African countries, namely Kenya, Zimbabwe and South Africa, as they were seen as representative of the continent.

The study followed a qualitative research design and used grounded theory as its mode of enquiry. A total of 28 semi-structured interviews were conducted with non-traditional postgraduate students in the three countries outlined above, and a focus group discussion with faculty and support staff was also conducted in each country.

The findings led to a systemic understanding of the non-traditional postgraduate students and their unique contexts and challenges, as well as the role of the institution and the role and impact of the academic supervisor. The study is concluded with an institutional framework for intervention, which should assist in improving student success.

**STOLTZ-URBAN, Carin**

*Non-traditional post-graduate student success: The development of an institutional framework*

*Academic Supervisor: Prof B Anderson*
TOM, Mbomvu Monde
Exploring the perceptions and experiences of social entrepreneurs and bureaucrats in the provision of school nutritional services within the South African context

With the dawn of democracy in South Africa in 1994, there was an emerging and exponentially accelerating force and expectation for societal and organisational change. In stark contrast, 20 years later, South Africa’s economic growth outlook is increasingly negative.

Recognising that the creation of jobs is one of the three key imperatives for government (the others being to address poverty and inequality), members of communities have started their own cooperative businesses.

This investigation focuses on social entrepreneurship, with specific reference to cooperatives. Social entrepreneurs are not business entrepreneurs working for profit, but people who lead to bring about social change through new community solutions, frequently working cooperatively through groups or organisations.

The study focused on three provinces: Eastern Cape, where government failures in terms of the triple imperatives are prevalent, and two provinces, KwaZulu-Natal and Gauteng, where cooperative initiatives appeared to have succeeded. The investigation contributes to an ongoing academic conversation that has been “talking” about social entrepreneurship, particularly through cooperatives, in the context of sourcing and providing school nutritional services in the sector.

The aim of the study was to explore the perceptions and experiences of social entrepreneurs and public servants in the provision of school nutritional services within the South African context. The ecological systems theory of development is the primary theory used for the analysis of data in this study, augmented by the insights gained from resource dependence theory and public choice theory. The study uses a qualitatively interpretive, exploratory-descriptive case study research design, making use of focus groups as the main data collection method. The samples of respondents included registered cooperatives/social entrepreneurs and government officials responsible for the school nutritional services programme.

The focus groups transcripts were analysed using NVivo 11. The themes that emerged were grouped into three categories: transformation, innovation and sustainability. Arising from the analysis, a cooperative working group model was developed.

Recommendations were made in respect of cooperatives, public servants, officials and other stakeholders. These recommendations focused on practical suggestions on how to ensure transformation, sustainability and innovation of cooperatives involved in sourcing and providing school nutritional services.

Academic Supervisor: Dr P Parsons
A critical review of the network infrastructure required to launch products to market: A Vodacom case study

The South African telecommunication industry has experienced significant changes during the last 30 years. Implementing lean production and developing supply management had a profound influence on the relationships between telecommunications companies and their suppliers, specifically network infrastructure suppliers. Vodacom South Africa (SA) has several key network infrastructure suppliers. Key network suppliers are considered suppliers of the network infrastructure (when implemented), allowing a cellular site to be easily initiated. The initial and most critical effort is when property leases for a new cellular site are acquired and the site is connected and integrated into Vodacom’s core network.

The main objective of this research was to identify the supply chain management concerns that Vodacom encounters in relation to key network infrastructure suppliers. The magnitude of these concerns was evaluated, and ways to overcome them proposed to improve shareholder value.

The concerns were identified through guidance from the literature review, analysing data from data warehouses, and conducting interviews in the supply chains of two key network infrastructure suppliers. Questionnaires were designed to assist with structured interviews, using data from these research instruments, including open-ended questions, to develop transcripts for analysis and completion.

This study is descriptive and explanatory, and contains both quantitative and qualitative elements in a sequential design, with quantitative being dominant. A quantitative analysis served to direct the researcher to “where?” concerns exist. This was followed by qualitative analysis to determine “why?” and “how?” concerns exist. Nine hypotheses were formulated on both supply chains, guiding the research.
The findings of this research indicate the geographic location, age and size of the business and have no bearing on the supply chain concerns of key network infrastructure suppliers. The relationship between functional departments in the supply chains and their main customer in developing credible demand is a significant concern.

The findings indicate the following main supply chain concerns facing Vodacom:

- Criteria for expected lead times and a gauge for sufficient orders completed, are absent
- A backlog (accumulation) of work orders exists in key functional departments
- When a fair criterion is established based on fair historical performance, the key network infrastructure suppliers do not meet the lead-time expectation
- The acquisition of property on which to build a cellular site is delayed due to issues around the cost of the lease between supplier and Telkom
- Postponement of compliance by Environmental Authorities (EIA), due to electromagnetic emissions concerns
- Connectivity to the cellular site is affected by lack of collaboration and skills to deal with Vodacom product fulfilment in Telkom’s supply chain
- A demand error ratio exists between Telkom and Vodacom for leased line connectivity to the cellular site
- The Vodacom demand plan for cellular site connectivity is not influenced by business and market requirements

Notwithstanding the above, the study recommends:

- Improving collaboration between Vodacom’s marketing department and its suppliers
- Providing a plan to improve knowledge of environmental legislation and processes within municipal authority’s framework
- Improve skills and the availability of tools in the Telkom value chain
- Planning for effectively connecting functional departments of both value chains to the demand chain of Vodacom

The study challenges the telecommunications industry to provide network coverage to rural areas, and makes recommendations about how mobile network infrastructure can be extended to these areas.

**Academic Supervisor: Prof R Chinomona**
INSTITUTIONAL RESEARCH OUTPUT

NQF LEVEL 9
CRONJÉ, Elmarie Cronje CUM LAUDE
Practices, barriers and consequences of existing skills development processes in South Africa: A Systems Thinking perspective
Academic Supervisor: Prof B van Zijl
Field Supervisor: Mrs M Smits

DE JAGER, Vaughan Searle
Competitive strengths within a volatile domestic environment: A Case Study of Investec Private Bank
Academic Supervisor: Dr S Shipham
Field Supervisor: Mr D Nel

DESANDO, Marcus Tebogo
Leadership regeneration within the performing arts: A South African perspective
Academic Supervisor: Dr C Downing

DU PLOOY, Jacobus
The effect of small-scale embedded power generation on the distribution of electricity: An Eskom Survey
Academic Supervisor: Mr L van der Merwe

FISHER, Robyn Catherine
Fraud prevention within Investec Private Bank
Academic Supervisor: Mr A Vermaak
Field Supervisor: Mr K Hogan

ASPINALL, Jason John
Internationalisation and the sustainability of private banking: Lessons learnt from the adoption of a South African private banking practice by a United Kingdom private bank
Academic Supervisor: Prof R Chinomona
Field Supervisor: Mr M Moloi

BHAGWANDASS, Ruschka
Factors influencing the digital presence of a Private Bank: A Case Study of Investec Private Bank in the United Kingdom
Academic Supervisor: Dr N Chiliya
Field Supervisor: Mr L Subroyen

BLOM, Kyle Steven CUM LAUDE
The use of digital platforms as a means of stakeholder value co-creation: A Case Study of Investec Private Bank
Academic Supervisor: Dr S Shipham
Field Supervisor: Ms E Bezuidenhout

BRUNETTE, Clifford
Personal significance: A foundational element of a learning architecture to enable learners to co-create work realities within a new world of work
Academic Supervisor: Dr R Wijoen
Field Supervisor: Dr D Shirley

CHETTY, Yule Charles
Visual and digital banking for the future: An exploratory study within Investec Private Bank in the United Kingdom
Academic Supervisor: Dr E Chinomona
Field Supervisor: Mr J Elliot
GAILEY, Melissa Beth
Building a competitive financial services brand within the United Kingdom: An Investec Private Bank Case Study
Academic Supervisor: Dr S Shipham
Field Supervisor: Mr V Lamprey

KATZ, Shayne
Attitudes towards investment and risk tolerance of Generation Y and Generation Z: An Investec Private Bank Case Study
Academic Supervisor: Dr S Shipham
Field Supervisor: Ms S McKee

GHISLENI, Bianca Lucia
The changing world of work and the subsequent effects: A Case Study of Investec Private Bank
Academic Supervisor: Dr S Shipham
Field Supervisor: Ms J West

KGOFELA, Naledi Elizabeth
Academic Supervisor: Mr A Mutono

KOAO, Tau Moses
The source of accidents associated with trackless mobile machines at open cast surface mines in South Africa: A Case Study of the Northern Cape Province
Academic Supervisor: Dr G van Rensburg

KRUGER, Lana
The Twin Peaks Financial Model versus the Investec Personal Cash Investment Model: An Investec Private Bank Survey
Academic Supervisor: Dr S Shipham
Field Supervisor: Mr T Mxadana

MAFISA, Masilo William
The role of alternative entry modes and operational processes to establish sustainable in-country African First Rand businesses
Academic Supervisor: Mr G Tosen

GRUNDLINGH, Nerine
Personal cash investments: A retail market perspective
Academic Supervisor: Prof R Chinomona
Field Supervisor: Mr S Jackson

HARTY, Shannon Leigh
The use of digital platforms for cash investment mobilisation: An Investec Private Bank Case Study
Academic Supervisor: Dr M Owusu
Field Supervisor: Mr C du Preez

JANSE VAN RENSBURG, Nicholene Adele
Skills and training requirements in the private branch exchange telecommunication environment: A Telkom South Africa Survey
Academic Supervisor: Dr R Abrahams

JOUBERT, Bianca
The influence of regulatory frameworks on marketing strategies within the South African Life Insurance industry: A South African Case Study
Academic Supervisor: Dr S Lloyd

8 | INSTITUTIONAL RESEARCH OUTPUT: NQF LEVEL 9
MAHARAJ, Reece
A comparative analysis of the return on investment of buy-to-let properties in the United Kingdom and South Africa: The Case of Investec Clients
Academic Supervisor: Dr E Chinomona
Field Supervisor: Mr R Towell

MAHLANGU, Ntokozo Sakhamuzi
The perceived duplication or omission of key risk factors amongst assurance providers within specialist banking: A Case Study of Investec Private Bank
Academic Supervisor: Ms S van Esch
Field Supervisor: Mr S Mansfield

MAKAN, Chelouise
Assessment of learning and development and change on employee engagement
Academic Supervisor: Mr R Mbeba

MAKGOLANE, Matlale Maureen CUM LAUDE
The relationship between downsizing communication and employee performance at MTN South Africa
Academic Supervisor: Prof R Chinomona

MASILO, Charmaine Paballo
Towards creating an Investec empowerment process: The case of global client support centre bankers
Academic Supervisor: Dr E Chinomona
Field Supervisor: Ms N Tshabalala

MBUYISA, Cletus Francis
Strategies towards the development of safety cultures: An Eskom nuclear new build project survey
Academic Supervisor: Mr A Dalvit
Field Supervisor: Dr M Gordon

MKANDAWIRE, Malizani Reuben
The influence of regulation on financial services clients: A comparison between clients of a United Kingdom private bank and a South African private bank
Academic Supervisor: Prof R Chinomona
Field Supervisor: Mr N Peprah

MOLAHLEHI, Pule
To examine the benefits of using the Project Life Cycle Model in Project Management: A survey within Eskom Power Delivery Projects
Academic Supervisor: Dr A Maneschijn
Field Supervisor: Mr L Turner

MOTSEARE, Tumelo Sean
Opportunities to expand market reach towards African, Coloured and Indian young professionals in South Africa: An Investec Private Bank Case Study
Academic Supervisor: Dr M Owusu
Field Supervisor: Mr R Agostini

NAIDOO, Anneleen
Predictors for dysfunctional software teams: A global survey
Academic Supervisor: Mr A Dalvit

NAIDU, Beverly May
Factors influencing business process management improvements within the Public Sector
Academic Supervisor: Dr S Shipman
Field Supervisor: Mr JP Matthews

NEWBY, Alison Joy
Behavioural preferences of school leaders and the influence of these on learning and development during coaching within a leadership programme
Academic Supervisor: Dr T Wulffers
NEWTON, Bradley Dean
The relevance of sports psychology within a banking environment: An exploratory study within Investec Private Bank
Academic Supervisor: Prof R Chinomona
Field Supervisor: Ms E Muzzell

NORRIS, Abigail
The role of motivation and morale on operational efficiencies within a Client Support centre: An Investec Private Bank Case Study
Academic Supervisor: Dr S Shipham
Field Supervisor: Mr C West

NTWANA, Siboniso Emmanuel
Factors influencing the unbanked from banking: An exploratory study within First National Bank
Academic Supervisor: Dr N Chiliya

PADAYACHEE, Vanitha CUM LAUDE
The influence of policy on prepaid card adoption across Industry sectors within South Africa
Academic Supervisor: Prof R Chinomona

PADAYACHEE, Yosheen
An integrated governance framework: 12GF
Academic Supervisor: Dr M Duma

PAPPAS, Gabriella CUM LAUDE
Service performance as a differentiator for client experience: An Investec Private Bank Survey
Academic Supervisor: Dr S Shipham
Field Supervisor: Mr K Strachan

RAHMATZADEH, Ladan
The relationship between marketing strategy and product offering: An Investec Private Bank Survey
Academic Supervisor: Dr S Shipham
Field Supervisor: Ms U Boniwe

RAKITZIS, Jessica Rose
Elements needed to foster a career within the financial services: An Investec Private Bank Survey
Academic Supervisor: Mr A Vermaak
Field Supervisor: Mr P Haupt

RANCHOD, Julan Khegan
The generational dispersion of wealth within a High-Net-Worth financial services client base: An Investec Private Bank Case Study
Academic Supervisor: Prof R Chinomona
Field Supervisor: Ms A Clarke

RASILALUME, Tendani Ezekiel
Foreign material and transformer-related failure: Optimisation of the Transformer and Switchgear Services within Eskom
Academic Supervisor: Dr V Lawrence
Field Supervisor: Mr P Khumalo

REDDIAR, Zain Donnovan
Developing an operational business framework for back office workflow within the telecommunication environment: A human resources taxonomy application
Academic Supervisor: Dr N Chiliya
REDDY, Christine  
Strategies to improve a savings culture: An Investec Private Bank Survey  
Academic Supervisor: Mr A Vermaak  
Field Supervisor: Ms R Grobler

ROUSSOS, Carmen Rozalja  
The role of multi-national enterprise brands on business growth, success and profitability: Lessons learnt by Investec Private Bank from international service brands  
Academic Supervisor: Dr N Chiliya  
Field Supervisor: Ms M Lillico

SAUNDERS, Ross Gary CUM LAUDE  
Productising a knowledge intensive business service: A Case Study of software content development  
Academic Supervisor: Mr A Vermaak  
Field Supervisor: Mr R Segal

STAVRINOU, Sophia Ioannou  
CUM LAUDE  
Client-centricity as a strategy to improve client experience at Investec Private Bank  
Academic Supervisor: Mr A Vermaak  
Field Supervisor: Mr W Preston

THOMAS, Aimee Michelle  
The development of an educational platform for banking clients: An Investec Private Bank Survey  
Academic Supervisor: Mr A Vermaak  
Field Supervisor: Ms M Maharaj

VAN WYNGAARDT, Jacobus Johannes  
The Impact of safety initiatives on safety performance within a South African construction company: A cross-sectional study of Aveng Grinaker-LTA  
Academic Supervisor: Dr S Shipman  
Field Supervisor: Mr M Turnbull

WILHELM, Gareth Dominic CUM LAUDE  
The development of a diagnostic framework to enhance strategy within complex working environments  
Academic Supervisor: Mr A Vermaak

YACH, Daniel Marc  
Streamlining the processes in purchasing properties: The case for property finance at Investec Private Bank  
Academic Supervisor: Dr S Shipham  
Field Supervisor: Mr J Drobis
9 | INSTITUTIONAL RESEARCH OUTPUT

NQF LEVEL 7
ABRAHAMS, Ruqayya
Exploration of recruitment practices relating to non-permanent employees within the business divisions at Standard Bank

AGENBAG, Josias Andries
Understanding the impact of non-integrated operating systems on service levels

ARNACHALLAM, Crisalda CUM LAUDE
Increasing productivity through enhanced training and merging of call centres within Digital Banking

BOTHA, Elmie CUM LAUDE
An investigation into the improvement of conveyor belt safety training at Transnet Port Terminals

BOTHA, Jacques-Louis
A study in comparing different pilot training, recruitment and placement processes for pilots entering a career path in the South African Airline Industry

BRADBURY, Martin
An Aviation Case Study into the interaction between pilots and aircraft engineers

BROOKER, Natalie Lynette
Coaching as an insightful blueprint – a First National Bank Case Study

BURGER, Herman
An investigation into different interpretations of conscientiousness by different personality types within different business sectors

CHAPPIE, Lerato Mantai
An investigation into opportunities for female pilots

CHIHWAYI, Catherine
An investigation into the effective usage and control of health and beauty products in a spa environment

CHINOMONA, Rudo Cynthia Christine
An investigation into the impact of family support, future thoughts and credit use on student career choice

CLAASSEN, Natasha
An investigation into the impact of Mobile Customer Service Agents on customer loyalty and customer losses

COETZEE, Carel Petrus
Investigating the organisational culture of uncontrolled expenditure: determining the use of company funds by laboratory managers

COETZEE, Zane Adam
An investigation into the impact of incentives on employee behaviour within First National Bank

CRONJÉ, John Darren CUM LAUDE
“Sortedoutness” – an investigation into the innovation culture at First National Bank Points of Presence

DE BOER, Kevin Rudy CUM LAUDE
Exploring factors that impact Industry Payments Project Delivery within First National Bank

DHEROT, Waseem
An investigation into the factors affecting employee performance at First National Bank

DIEUDONNE, Kabeya Lukusa
Quantifying opinions of stakeholders regarding the effectiveness and efficiency of paperless tuition at The Da Vinci Institute

DU PLESSIS, Annette
The impact of senior management support to junior management on the performance of the organisation

DUBE, Keamogetse Samkele
The effectiveness of SA Calcium Carbide compliance to the Air Emissions Licence as well as the human and environmental impact of calcium carbide dust: A Safety, Health and Environmental case study

FERNANDES, Maria De Fatima Godinho
The effects of disruptive technology in a contact centre environment – a First National Bank Case Study

FREISLICH, Conrad
An investigation into the safety orientation of older employees

GCWILI, Zamile Jacob
Fostering support for entrepreneurship development within the Mangaung Metro Municipality

GERMISHUizen, Stephanus Petrus CUM LAUDE
The study of the importance of an effective communication process within Sasol Safety, Health and Environment.

GOLDSCHMIDT, Jaydee
The ethics of commission paid employees – an investigation within First National Bank

GOVAN, Beejal
Inefficient Airline Induction Training and the lack of support for cadet pilots at SA Express Airways
GOVENDER, Haridevan
The impact of ethical leadership on staff retention within First National Bank

GOVENDER, Prelin
The Impact of employee motivation on organisational performance

GOVENDER, Rodrick Emmanuel CUM LAUDE
Improving performance efficiency within the collections department at Ricoh South Africa

GUMBI, Dennette Colleen
An analysis of factors influencing non-retention of Generation Y employees: A Case Study of First National Bank in Vincent Park

HAYWARD, Mildred
Employee engagement: the state of being involved in something - a First National Bank Case Study

HENKEMAN, David Lionel CUM LAUDE
The Impact of gender and racial transformation on black managers and organisations

HETZEL, Chantel CUM LAUDE
The impact of absenteeism on productivity and job satisfaction within First National Bank

HEYNEKE, Hendrik
Management’s lack of involvement towards Occupational Health and Safety: A Polokwane Municipality study

HEYNEKE, Johan
An Investigation into different generations in safety management within the construction industry

HLAOLI, Kgalalelo Thelma
Factors that causes stress within the Government Employees Medical Scheme Department (GEMS)

HLUNGWANI, Rodgers
An investigation into First National Bank band minimum and maximum salaries

HORNE, Sherrill Genevieve CUM LAUDE
Creating a sustainable business plan for UPS South Africa

HURTER-ROGERS, Carol-Ann
Understanding the impact of migration in First National Bank banking services

JANSE VAN RENSBURG, Lean CUM LAUDE
An investigation into the survival of frontline employees at a low-cost airline

JANSE VAN RENSBURG, Martha Sophia
The impact of outcome based remuneration within First National Bank

JOHNSON, Cailynne Carla
An investigation into the effect of employee engagement and its potential benefit for First National Bank and its employees

JONES, Brandon Dennis
Employee attrition at First National Bank

JOOSTE, Christopher Peter
An inquiry into fatigue and the management of risks related to fatigue of commercial pilots at South African Express Airways

JOUBERT, Marina CUM LAUDE
The effect of staff shortages on morale and productivity within First National Bank

KABENI, Nosipho CUM LAUDE
Closing Internal Audit findings effectively and timeously within Transnet Freight Rail Business Units

KAY, Laetitia
Modern technology “out with the old, in with the new” – a First National Bank Case Study

KELLERMAN, Géan CUM LAUDE
The tug of war - production versus occupational health and safety: the case of Kwelanti Construction

KISTEN NAIKER, Radha
Understanding the new generation of prodigy bankers within First National Bank

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10 | THE 2017 ANNUAL DA VINCI COUNCIL AWARDS
These awards are conferred on graduates who, over and above their scholarly contributions, have displayed exceptional managerial leadership characteristics. These awards are awarded annually.

THE BENJAMIN ANDERSON AWARD FOR WORK BASED LEARNING
In view of the fact that the first cohort of BCom students graduated during 2015, a new academic award for academic excellence was instituted, aimed at recognising outstanding performance in respect of the BCom (Business Management) qualification. A central feature of the BCom (Business Management) qualification is the Work Based Challenge (WBC) – an approach unique to The Da Vinci Institute. The award will be presented to a student who has passed the programme cum laude and who has achieved a minimum of 75% in his/her Work Based Challenge.
Recipient: Mr Sushil Deva

THE DA VINCI PRESIDENT AWARD
The Da Vinci President’s Award recognises students who, through excellence in applied research, contribute to an alternative understanding of what constitutes the Da Vinci Institute’s offerings related to Managerial Leadership in Technology, Innovation, People and Systemic Thinking. The student(s) should, through research activities, demonstrate an unquestionable contribution(s) towards the creation of new knowledge and application as related to the Management of Technology, the Management of Innovation, the Management of People and the Management of Systems within a specific organisational context.
Recipient: Ms Yolande Maree

THE NATALIE DU TOIT AWARD
This award recognises individuals who display persistence, cheerfulness, a sense of adventure, tenacity, courage and helpfulness to others and who have either ably balanced their academic studies with extramural activities, or have balanced their achievements with real life challenges and opportunities in such a way as to benefit society at large.
Recipient: Dr Jean Parker
Recipient: Dr John July Mgwenya

THE DA VINCI COMMUNITY SERVICES AWARD
The Da Vinci Institute has incorporated Community Services as a key component in all offerings to clients. This award recognises students who demonstrate a commitment towards community involvement and who have included community activities into their learning and research.
Recipient: Fr. Dr Anselm Gbenga Adodo

THE DA VINCI MANDALA RESEARCH AWARD
The Mandala is a symbol of integrating different parts into a synthesized archetype of subjective truth. The more we become integrated, or the more a piece of work is integrated, the more authentic it becomes in striving towards wholeness.
Recipient: Dr Giovanni Vincenzo Mariano

THE DA VINCI PHD EXCELLENCE AWARD
The aim of the Da Vinci PhD Excellence Award is firstly, to acknowledge academic excellence demonstrated by a Da Vinci PhD graduate; secondly, to serve as an example of excellence for other Da Vinci students; and thirdly, to promote The Da Vinci Institute through the quality of his/her research.
Recipient: Dr Giovanni Vincenzo Mariano

THE DA VINCI LAUREATE AWARD: SOCIAL ARCHITECTURE
A Da Vinci Laureate is expected to provide insights into complex systems and to make contributions to society at large. They are also recognised for honourable service to their country through applied engagements. Laureates distinguish themselves by engaging in specific domains within society and thereby contribute to the re-configuration of the social system at large.
Recipient: Mr Ahmed Mohamed Kathrada (posthumous)
11 | PUBLICATIONS AND CONFERENCES
Published Articles and/or Books

1. Gopichund M, Naicker V. 2017. Knowledge management systems and competitive advantage
8. Phakathi W., 2017. Unleash the Self- Starter in You (Book)

Articles in Press

1. Oshodi, Basheer, The economic emancipation of Africa – putting the triple heritage to work through integral banking
2. Oshodi, Basheer, Can Islamic finance solve the poverty challenge? The phenomenology approach
3. Oshodi, Basheer, Measuring Inequality in Africa's Largest Economy through Critical Realism
4. Tlhagale M, Marcus R, and Lennon S. Is the South African bio-economy strategy capable of driving sustainable health innovation and economic growth?
5. Tlhagale M, Marcus R, and Lennon S. A policy framework for the establishment of a sustainable bio-economy: A South African health innovation case study
7. Oshodi B. Mortgage in Islamic Finance
8. Mugadza G. Emergence of a fourth state of the System: A positive outcome of pluralist problem structuring
10. Smith D.A. and Pampallis A. The development of an employee perception index to support strategy implementation concentrating on purpose
11. Tlhagale M.A. Creating a policy framework for the establishment of a sustainable bio-economy: a South African case study
12. Kumkani E. Coaching as a strategic intervention for leadership development in organisations: a systems approach
15. Smith D.A., Pampallis A. and Van der Wal R.W.E. The importance of an employee perception index to support strategy implementation
16. Van Rooyen C.R. and Chinomona R. A critical review of the supply of key network infrastructure in relation to Vodacom’s demand for capacity to bring products to market

Conference papers

12 | RESEARCH DEVELOPMENT
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### PUBLICATION WORKSHOPS - 2017

| 10 March          | Publish or Perish! | Dr Ronel Blom |
| 07 July           | Publish or Perish! | Dr Ronel Blom |
| 06 October        | Publish or Perish! | Dr Ronel Blom |

### RESEARCH SEMINARS - 2017

| 24 February       | Finding, Defining and Refining your Research Puzzle! | Dr Ronel Blom |
| 21 April          | Literature Review | Dr Ronel Blom |
| 23 June           | Bulletproof your Research and Design Methods! | Dr Ronel Blom |
| 25 August         | Finally! Making Sense of Data Collection and Analysis | Mrs Carin Stoltz-Urban and Mr Simon Gathua |
| 20 October        | Theoretical and Conceptual Frameworks | Dr Ronel Blom |

### INAUGURAL LECTURES - 2017

| 16 March          | Anarchy and individuality | Prof Benjamin Anderson |
| 12 May            | Systemic Design Thinking from Etsi to Biomimicry | Prof Roy Marcus |

### GUEST LECTURES - 2017

| 09 March          | Ubuntu and Presence – the relational way of organising | Prof Dr Andries Baart |
| 06 September      | Survival is not compulsory! | John Carlisle |

### TIPS CONFERENCE - 2017

| 06 November       | Way forward: A cooperative framework | Prof Edward Kieswetter |
| Managerial Leadership | Prof Benjamin Anderson |
| TIPS™ Framework | Dr Dana Gampel |
| Engagement | Dr John Mgwenya |
| Alignment | Dr Rica Viljoen |
| Agility | Mr Greg Tosen |
### CURIOSITA SESSIONS - 2017

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<td>Mobile Learning for Post-school Education and Training in South Africa</td>
<td>Mr Allen Mutono, CEO of Mutono Technologies CC</td>
<td>Mr Raidu Nel, CEO for Blank Canvas International</td>
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<td><strong>March</strong></td>
<td>Industry Performance and Digital Disruption: Unleashing possibilities for the African farmer in the developing world</td>
<td>Ms Sulize Botwood, CEO of World Trade Experts</td>
<td>Dr Willie Oosthuysen, Group Executive for Technology and Strategy at Altron</td>
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<td><strong>April</strong></td>
<td>Testing the Perceptions of the effect of Mining Charter in the Gold Mining Industry</td>
<td>Mr Mzwandile Anthony Maki, HR Manager of Evander Gold Mines</td>
<td>Prof Jaco Hoffman, socio-gerontologist and leader of the Optentia Resources Focus sub-programme.</td>
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<td><strong>May</strong></td>
<td>Servant Leadership, the case of Nampak Liquid</td>
<td>Mr Charles Mugoma, Regional Manufacturing Manager of Nampak</td>
<td>Mr JD Henderson, MD of X-Procure Software SA</td>
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<td>Mr Selaelo Theodere Matlhane, Spectrum and Telecommunications Manager</td>
<td>Mr Michael Roberts, CEO of Khonology</td>
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<td><strong>July</strong></td>
<td>The development of a framework for postgraduate studies in communication design</td>
<td>Ms Ria van Zyl, National Academic Navigator at Vega School - A Division of The Independent Institute of Education</td>
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<td>Creating an Entrepreneurship Framework to Stimulate Employment Creation in the South African Healthcare Industry</td>
<td>Mr Christo Scheepers, Founder of the Christo Scheepers Group</td>
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<td><strong>September</strong></td>
<td>Industrial Democracy in the New Social Accord in South Africa: Towards a Consultative Framework</td>
<td>Mr Dennis George, General Secretary of FEDUSA</td>
<td>Dr Jean Parker, Senior Research Fellow at Trans4m Center for Integral Development</td>
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<td>Exploring sports coaching experiences and needs of athletes and sports coaches within a developing socio-economic context</td>
<td>Mrs Desiree Vardhan, Manager: Coaches Development, SASCOC</td>
<td>Mr Wayne Aronson, Technetium</td>
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<td><strong>November</strong></td>
<td>Lean thinking driving employee self-empowerment, engagement and performance: A South African perspective</td>
<td>Mr Mark Fuller, Managing Director at Afrilean Consulting</td>
<td>Mr Lee McFayden, Group Technology Executive at SVA Innovate (Pty) Ltd</td>
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13 | EXTERNALLY FUNDED RESEARCH PROJECTS
ATLAS COPCO
The Master of Science qualification in the Management of Technology and Innovation (MOTI) is characterised by the emphasis placed on the need for students to become critical and creative thinkers, and eventually, elected representatives and employees, who utilise innovative approaches in managing their work life within their organisations. To this end, the programme equips students with the required competence to serve in transformation management leadership positions, enabling them to initiate socio-economic transformation within society.

COACHING CENTRE
The Coaching Centre requested the design of a Masters qualification focused on initiating coaching into organisational contexts for managers and leaders as well as to use transformational coaching to sustain learning, personal and organisational development. The Learning Programme was specifically designed to enable coaches to empower members of an organisation to realise their true potential. This is achieved through developing them to coach multidisciplinary teams tasked to facilitate business improvement and socio-economic transformation and acquiring the competence to coach within a system (resources) and to develop technology and innovation related activities to meet their client’s business objectives.

ESKOM
Eskom requested The Institute to deliver the Masters qualification in the Management of Technology and Innovation (MOTI) with a view to develop managerial leaders within the energy sector. The programme focused on developing employees who will be able to fill various senior roles in project planning, execution and control.

FIRST NATIONAL BANK
The Bachelor of Commerce qualification in Business Management offered to First National Bank employees specialises in the development of managerial leadership competence within the banking sector. Using the Da Vinci framework of the Management of Technology, Innovation and People within a Systemic context (TIPS™), candidates are exposed to alternative ways of thinking about their environment and a range of banking challenges.

FIRST NATIONAL BANK
First National Bank identified the need for a Masters qualification in the Management of Technology and Innovation (MOTI) for prospective managerial leaders within FNB. The focus of the programme is to develop managerial leaders for the banking sector, using the management of technology, innovation, people and systems as a starting point.

GLOBAL BUSINESS SOLUTIONS
Global Business Solutions requested The Institute to deliver a Masters qualification in the Management of Technology and Innovation (MOTI) with a specialisation in the holistic understanding of labour law within the context of the new world of work. The programme has been carefully structured to enable students to respond to the labour law requirements of their operations through the selection and application of a blend of technologies and other skills relevant to their markets.

INVESTEC
Investec identified the need for a Masters qualification in the Management of Technology and Innovation (MOTI) for prospective managerial leaders within the bank. The focus of the programme is to develop managerial leaders for the banking sector, using the Management of Technology, Innovation, People and Systems thinking principles and practices as an integral foundation to enhance business performance.

SOUTH AFRICAN EXPRESS PARCEL ASSOCIATION (SAEPA)
SAEPA saw the skills gap and lack of academic qualifications in the transport and logistics industry, as well as, the procurement space within the same industry. The main purpose of the Bachelor of Commerce qualification in Business Management (with a specialisation in Supply Chain Management) is to recognise those who have the required competence to serve in management development positions in organisations and society, by enabling them to obtain a nationally registered and recognised qualification.

STATUS AVIATION
The Da Vinci institute designed and delivered a Bachelor of Commerce qualification in Business Management with a specialisation in Aviation Management. This programme focuses on the development of business management competency within the Aviation Industry. The Da Vinci philosophy and framework, combined with visual intelligence in aviation, enables pilots to add greater value to employers through the application of an understanding of their impact on the aviation value chain.
**The management of technology (MOT)**
The management of technology argues that we are all technologists, every one of us who knows how to do something in a certain way and uses tools to do it, be they pencils or personal computers, machine tools or video screens. Teachers, auto designers, builders of factories or financial plans, whether we use language labs or lasers, in whatever we do, we participate in the management of technology of our age.

**The management of innovation (MOI)**
This is essentially about how an organisation capitalises on the ideation process to develop an innovative product, service, process or system, and, as a result commercialises and implements such innovation.

**The management of people (MOP)**
The crux of this aspect is understanding the human bridge in implementing organisational processes and how the organisational human factor is leveraged, showing how and where people make the real difference in sustaining organisational growth and competence.

**The management of systems (MOS)**
The is the synthesis of all organisational activities and performances systemically, in an attempt to solve unique problems. The re-design of a competitive landscape may result in a state of hyper-competitiveness. It also assumes that one perceives reality as a combination of known, knowable, complex and chaotic dimensions.

In linking and integrating the TIPS™ domains with each other, Da Vinci argues that people should be able to demonstrate the following behaviours:

**Being agile**
Integrating the dynamics of the management of technology and the management of innovation so that, as the organisation develops, improves and adapts its technology needs, innovation can be appropriately applied to generate real market value and profitability.

**Being aligned**
Integrating the management of technology and the management of people by ensuring that the organisation upskills (by acquisition or development) the appropriate human capabilities to match and ideally exceed the technological needs at any given time.

**Being engaged**
Integrating the management of people and the management of innovation by way of evaluating the commitment and motivation of people in the workplace. Engagement is measured in terms of the total incentive cost within the organisation.

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**TIPS™ FRAMEWORK**

The diagram illustrates the integration of the four domains (TIPS™) to achieve differentiation, alignment, engagement, and performance output. Each domain (Tools/Metrics, Organisation System, Ideation - to Create Value, Human Interface) is connected to ensure a comprehensive approach to organisational growth and competence.
15 | tt100 BUSINESS INNOVATION AWARDS
The tt100 Awards Programme, with support from various partners (including The Department of Science and Technology, Eskom and PwC) was launched in 1991 by the South African Engineering Association (SAVI). The programme has been focused on drawing attention to the importance of developing a local culture of technological innovation and excellence. tt100 has evolved into one of the foremost business awards programmes that laud South African companies for their prowess in the Management of Technology, Innovation, People, Systems, Research and Sustainability, regardless of their industry. The programme is an effective vehicle for achieving growth and innovation advancement in our country, while raising awareness of the critical need for South African companies to embrace the Management of Technology, Innovation and People in a systemic and sustainable manner. Since 1994, tt100 has enjoyed strong endorsement by the Department of Science and Technology (DST) as the major government sponsor. The tt100 Programme forms an integral part of The Institute’s annual business operations.

The winners and finalists for the 2017 tt100 Business Innovation Awards Programme in each category are:

**THE WINNERS IN THE MANAGEMENT OF TECHNOLOGY:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Winner</th>
<th>Finalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging enterprise</td>
<td>Brucol Global Development</td>
<td>Kusasa Information Systems (Pty) Ltd, ThisisMe, VNI Consultants</td>
</tr>
<tr>
<td>Small enterprise</td>
<td>Cura Risk Management Software (Pty) Ltd</td>
<td>Air Blow Fans, Bramhope Group, FetchThem, hearX Group (Pty) Ltd, Smoke Customer Intelligence, X/procure Software SA (Pty) Ltd</td>
</tr>
<tr>
<td>Medium enterprise</td>
<td>GlobalTrack</td>
<td>Space Advisory Company, SSG Consulting, Accsys (Pty) Ltd</td>
</tr>
<tr>
<td>Large enterprise</td>
<td>Altech Netstar</td>
<td>DebTech, Nelito Systems Ltd, PFK Electronics (Pty) Ltd</td>
</tr>
</tbody>
</table>

**THE WINNERS IN THE MANAGEMENT OF PEOPLE:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Winner</th>
<th>Finalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging enterprise</td>
<td>ThisisMe</td>
<td>Passion4Performance International (Pty) Ltd, VNI Consultants, Niche Intergrated Solutions (PTY) LTD</td>
</tr>
<tr>
<td>Small enterprise</td>
<td>X/procure Software SA (Pty) Ltd</td>
<td>Bramhope Group, hearX Group (Pty) Ltd, Smoke Customer Intelligence, Thesl (Pty) Ltd</td>
</tr>
<tr>
<td>Medium enterprise</td>
<td>Accsys (Pty) Ltd</td>
<td>Globaltrack, Praesignis (PTY) Ltd, Space Advisory Company, SSG Consulting</td>
</tr>
<tr>
<td>Large enterprise</td>
<td>Nelito Systems Ltd</td>
<td>Altech Netstar, PFK Electronics (Pty) Ltd, SA Taxi Finance Holdings Proprietary Limited</td>
</tr>
</tbody>
</table>
## The Winners for Excellence in Sustainability:

**Emerging Enterprise**
- **Winners:**
  - I am Emerge
  - Passion4Performance International (Pty) Ltd
- **Finalists:**
  - Roman Handt
  - Swift Livestock
  - Varibac CVT Technologies
  - VNI Consultants

**Small Enterprise**
- **Winners:**
  - FetchThem
  - X/procure Software SA (Pty) Ltd
- **Finalists:**
  - Green Worx Cleaning Solutions
  - hearX Group (Pty) Ltd
  - Octagon Business Solutions (Pty) Ltd
  - Tabula Rasa Investments Private Limited
  - Communex Technologies

**Medium Enterprise**
- **Winner:** SSG Consulting
- **Finalists:**
  - Accsys (Pty) Ltd
  - Globaltrack
  - Space Advisory Company

**Large Enterprise**
- **Winner:** PFK Electronics (Pty) Ltd
- **Finalists:**
  - Altech Netstar
  - De Beers Technologies SA (DebTech)
  - Nelito Systems Ltd

## The Winners in the Management of Systems:

**Emerging Enterprise**
- **Winner:** Passion4Performance International (Pty) Ltd
- **Finalists:**
  - Brucol Global Development
  - Roman Handt
  - VNI Consultants

**Small Enterprise**
- **Winner:** X/procure Software SA (Pty) Ltd
- **Finalists:**
  - Air Blow Fans
  - Green Worx Cleaning Solutions
  - hearX Group (Pty) Ltd

**Medium Enterprise**
- **Winner:** Space Advisory Company
- **Finalists:**
  - Accsys (Pty) Ltd
  - Globaltrack
  - SSG Consulting

**Large Enterprise**
- **Winner:** PFK Electronics (Pty) Ltd
- **Finalists:**
  - Altech Netstar
  - De Beers technologies SA (DebTech)
  - Nelito Systems Ltd

## The Winners in the Management of Innovation:

**Emerging Enterprise**
- **Winner:** Brucol Global Development
- **Finalists:**
  - Swift Livestock
  - ThisisMe
  - VNI Consultants

**Small Enterprise**
- **Winner:** hearX Group (Pty) Ltd
- **Finalists:**
  - Smoke Customer Intelligence
  - Thels (Pty) Ltd
  - X/procure Software SA (Pty) Ltd

**Medium Enterprise**
- **Winner:** SSG Consulting
- **Finalists:**
  - Accsys (Pty) Ltd
  - Praesignis (PTY) Ltd
  - Space Advisory Company

**Large Enterprise**
- **Winner:** PFK Electronics (Pty) Ltd
- **Finalists:**
  - Altech Netstar
  - Nelito Systems Ltd
  - SA Taxi Finance Holdings Proprietary Limited
### THE WINNERS WITH THE BEST INNOVATION CONCEPT:

<table>
<thead>
<tr>
<th>Category</th>
<th>Winner</th>
<th>Finalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging enterprise</td>
<td>Winner: Vuleka</td>
<td>Finalists: Mobile KYC, Membrane Electrode Assembly (MEA), MOWASH, Fast Fica</td>
</tr>
<tr>
<td>Small enterprise</td>
<td>Winner: Fundutso Musha (PDC)</td>
<td>Finalists: Medical Scheme Self-help Kiosk, hearScreen TM, Logistics Simulator</td>
</tr>
<tr>
<td>Medium enterprise</td>
<td>Winner: Gecko Imager</td>
<td>Finalists: Systems Integration with modern technology</td>
</tr>
<tr>
<td>Large enterprise</td>
<td>Winner: Rural Credit</td>
<td>Facilities to the unbanked</td>
</tr>
</tbody>
</table>

### THE WINNERS FOR OVERALL EXCELLENCE:

<table>
<thead>
<tr>
<th>Category</th>
<th>Winner</th>
<th>Finalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium enterprise</td>
<td>Winner: SSG Consulting</td>
<td>Finalists: Accsys (Pty) Ltd, Globaltrack, Space Advisory Company</td>
</tr>
<tr>
<td>Large enterprise</td>
<td>Winner: PFK Electronics (Pty) Ltd</td>
<td>Finalists: Altech Netstar, Globaltrack, Nelito Systems Ltd</td>
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</table>

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