Gordon Institute of Business Science
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Organisational performance as a mediating construct between employee-driven innovation and organisational ambidexterity as studied through the lens of paradox

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Abstract

The purpose of this study was to investigate tensions between employee-driven innovation and organisational ambidexterity, and how these tensions affect organisational performance. The tensions were framed on the Paradox Theory. The study focused on South African organisations, particularly in the Johannesburg and Pretoria regions. This study adopted a positivist paradigm, deductive approach, explanatory research, and quantitative method with a total number of 172 respondents.

The analysis found that the relationship (or tension) between organisational ambidexterity and employee-driven innovation, is a mediator between the two other tensions of interest, namely, organisational ambidexterity versus organisational performance, as well as employee-driven innovation versus organisational performance. Through hypothesis testing, all three hypotheses showed tensions existed between the three constructs, respectively. The study also found respondents' willingness and ability to be involved in employee-driven innovation initiatives, elements of ambidexterity were also observed from the results at both individual and organisational levels.

As the research was set mainly in Johannesburg and Pretoria, generalisability of the results may prove a challenge. Managers should be encouraged to set up processes that remove or reduce the friction between employees' daily responsibilities, and involvement in innovation initiatives. In order to build an ambidextrous organisation, managers need to be deliberate about such processes, resources allocated to technology, as well as learning initiatives for both themselves and their teams. In addition, managers need to intentionally work on the behaviour of the organisation and attitudes.

Keywords
Employee-Driven Innovation, Organisational Ambidexterity, Organisation Paradox, Organisational Performance

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements of the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination at any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Glossary

EDI – Employee Driven Innovation

OA – Organisational Ambidexterity

OP – Organisational Performance

BMF – Black Management Forum

SA – South Africa

4IR – Fourth Industrial Revolution

VUCA – Volatile, Uncertain, Complex and Ambiguous

R&D – Research and Development

BSC – Balanced Scorecard

EFA – Exploratory Factor Analysis

DTPS – Department of Telecommunications and Postal Services

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Chapter 1: Definition of Problem and Purpose

1.1 Research Title

Organisational performance as a mediating construct between employee-driven innovation and organisational ambidexterity as studied through the lens of paradox.

1.2 Introduction

The words of the then President Thabo Mbeki, delivered in a speech to representatives of the Black Management Forum (BMF), about South Africa having two economies which were similar to a double-storey house which did not have a staircase connecting the two floors, still ring true today (Pressly, 2003). Whilst the country has experienced some economic growth, this growth has not been experienced by everyone due to the triple challenges plaguing the South African society: poverty, inequality and unemployment (Phiri, Molotja, Makelane, Kupamupindi, & Ndinda, 2016). This statement by President Mbeki showed the dire need for inclusive growth. Meaning that a ladder was needed between the two floors, where those in the ground floor could gradually make their way to the top as well. Due to these dual economies, South Africa is considered to be one of the world's most unequal societies, a situation which has the makings of a deadly cocktail (Scwab, 2019).

Organisations such as businesses, civil society, trade unions and even government entities form a critical part of society and can go a long way in assisting alleviate the triple challenges. This research sought to understand how organisations can harness the tensions between employee-driven innovation and organisational ambidexterity to improve their performances. With increased performance, comes growth and creation of employment. These can then assist in driving down inequalities and poverty.

This research will investigate if and how the tensions between Employee-Driven

Innovation (EDI) and Organisational Ambidexterity (OA) influence Organisational Performance.

EDI is defined as the formulation and implementation of new processes, ideas or products by an employee for whom this is often not a core responsibility (Kesting & Ulhøi, 2010). These employees would usually not occupy strategic decision-making positions (Kesting, Song, Qin, & Krol, 2016). Other definitions of EDI are outlined in Table 1.

The rationale for EDI is elevated by the fact that delegating innovation to just one department, such as Strategy, Business Development, Marketing or Research & Development, rather than diffusing it across the organisation, by taking advantage of those that are at the coalface of daily interactions with customers and business processes, has not yielded sufficient results for most organisations (Aaltonen & Hytti, 2014; Bäckström & Lindberg, 2019; Panurach & Moosa, 2013). In essence, this remains a compelling argument on the need for further research in this area.

An ambidextrous organisation is one that can fully exploit current opportunities whilst equally preparing itself for fierce competition in the future and thus securing its own sustainability (Alpkan & Gemici, 2016; Lewis, 2015; Schmitt, Raisch, & Volberda, 2018). Birkinshaw (2014) refers to OA as an organisation's ability to master adaptability and alignment. Organisational ambidexterity (OA) is, for the organisations that manage to get it right, a source of competitive advantage which sets the organisation apart from its competitors (Agnė Paliokaitė & Pačėsa, 2015; Vrontis, Thrassou, Santoro, & Papa, 2017). OA has attracted attention in both the organisational and strategic areas of study (Vrontis et al., 2017), and this study will focus on both areas.

1.3 **Problem rationale and selection**

The tensions between EDI (Kesting et al., 2016; Kesting & Ulhøi, 2010) and OA (Panagopoulos, 2016) have not been adequately studied (Smith & Lewis, 2011). Organisational paradoxical thinking, as a research lens, confirms the existence of tensions between the 'learning' (OA) and 'belonging' (EDI) constructs (Smith & Lewis, 2011). These

are tensions between embracing the need for the organisation to change and adapt to an environment that is advancing at an even more rapid rate (OA) and the deeply ingrained desire for employees to find themselves (or their identity) within the organisation by contributing to building its future through innovation (EDI) (Smith & Lewis, 2011). This study conducted an in-depth assessment of these tensions and how they influence organisational performance (Schmitt et al., 2018; Smith & Lewis, 2011).

The democratisation of innovation generation within organisations is critical to the growth of the emerging economy (Bäckström & Lindberg, 2019; Laviolette & Redien-collot, 2016). By ensuring that employees are directly and materially involved (Kesting et al., 2016; Tirabeni, Soderquist, & Pisano, 2016) in preparing the organisation for the future (Birkinshaw, 2014; Panagopoulos, 2016), this positively affects employees' sense and level of belonging, and thus increases their propensity to remain loyal to the organisation (Jena & Pradhan, 2018).

Schmitt et al. (2018) confirm the tensions between EDI and OA. However, what is not clear is how these tensions manifest in various organisations. It is also unclear as to how these tensions, especially those between the drivers of the two pillars (i.e. EDI and OA), can be harnessed to drive organisational performance.

1.4 Evidence supporting the identification of the problem

A study amongst Chinese factory employees born in the 1980s and 1990s showed that due to the generation they were born in, they valued different things relative to their predecessors (Zhu, Xie, Warner, & Guo, 2015). The employees valued aspects such as justice, fairness, autonomy and purpose. As such, employees always express the need to be involved.

Organisational ambidexterity presents an opportunity for employees and the organisation to be equipped for the future whilst remaining competitive and relevant (Chang, 2015; Laviolette & Redien-collot, 2016). A study by Forbes based on 1603 executives representing a selection of organisations across the world yielded several results that

pointed to South African organisations not being ready for the future or to compete in a global economy (Deloitte, 2018). About 100 of these executives came from South Africa (SA). The rest were from 19 countries from the Americas, Asia and Europe. These C-suite level executives came from companies with annual turnovers of at least $1 billion (one billion American dollars). At least 53% of the companies represented had turnovers of $5 billion or more. The executives were asked several questions about the Fourth Industrial Revolution (4IR), and the results were compared to those of their global counterparts. The following key findings were made:

- Social Impact:
  - SA executives were less optimistic (72% versus 87%) about the social change that will be brought about by the 4IR.
  - In terms of the social impact, executives as individuals and their respective organisations can have, SA and global executives shared the sentiments that their level of impact was constrained.
- Strategy:
  - SA executives expressed reservations about their organisations' readiness to derive benefits from the changes that will be brought about by the 4IR. Only 2% of the SA executives were optimistic, relative to 33% globally.
  - SA executives also appear to be more concerned about the regulatory environment. Rather than lead on innovation, they appear content to let regulators determine the direction in which industries should go.
- Talent and the Workforce:
  - 73% of SA executives, as opposed to 47% globally believe autonomous technology will replace workers rather improve their working conditions.
  - SA executives had more confidence in the current education system's ability to prepare workers that will be prepared for the Fourth Industrial Revolution (4IR).
  - More SA executives (63% compared 86% globally) believe they are not doing enough to prepare their workforce for 4IR. This points to managers that are not well equipped to manage the transition of the

economy.

- Technology:
  - 20% of global executives globally, relative to 6% in SA, perceive Technology as a competitive differentiator.
  - SA executives also do not feel ready for a number of challenges stemming from 4IR.

Whilst the current study does not focus on the 4IR, 4IR is used in this context to emphasise the extent of the change that society in general and organisations in particular, will need to contend with (Colombo, Karnouskos, Kaynak, Shi, & Yin, 2017; Deloitte, 2018; Martin, 2014; Rodriguez & Rodriguez, 2015). It is this drastically changed future that organisations would first have to prepare for and then compete in once it manifests. The changes and possible impact necessitated by 4IR is of such significance that it is doubtful whether anything could have prepared any organisation and the world in general (Schwab, 2019).

1.5 Purpose of the Research

1.5.1 Purpose

Owing mainly to organisations to be interacted with in this study, and their accessibility, this study has confined itself to the South African context. However, its findings may be replicable across Africa, since the operations of some of these organisations are spread across the continent. This research will contribute to the below-mentioned bodies of knowledge around i) how innovation should be effectively managed, ii) how employees can be encouraged to contribute to innovation, and iii) how organisations can remain competitive in their current operations whilst preparing to remain relevant in the future.

This study endeavours to contribute to the body of knowledge in the following areas:

- Organisational Management / Strategy Development – this research will assist with insights that will enable managers in developing strategies for organisations that are future-fit. Such strategies will recognise the centrality of employees in the innovation process of the organisation.

- Minimising the friction between OA and EDI, and how these affect organisational competitiveness, and ultimately organisational performance.
- Policy Development – on the 8th of December 2018, the Minister of Communications released in the Government Gazette an invitation to individuals interested in serving on the Presidential Commission on the Fourth Industrial Revolution to express their interest (DTPS, 2018). The objective of the Commission is to "coordinate the development of South Africa's national response through a comprehensive action plan to deal with the Fourth Industrial Revolution" (DTPS, 2018, p. 4). The Commission will recommend policies and strategies South Africa will require to be competitive against other countries.
- Entrepreneurship – this study will assist in shaping how entrepreneurship can be encouraged and managed within organisations.

1.5.2 Process

Rogers's diffusion of innovations theory (Rogers, 1995; Sahin, 2016) outlines the steps for how innovations ought to cascade within an organisation to ensure maximum adoption. This research sought to understand the existence and nature of the synergistic relationship between OA and EDI and its impact on organisational performance.

1.6 Conclusion

The tensions between EDI and OA, and how these influence OP, as studied through the lens of the paradox theory are of both academic and business interest. This chapter has demonstrated the need and purpose for the questions raised here to be further investigated. The chapters that follow will seek to build on the review of the literature in this space to develop a methodology, and thus results. The study will culminate with a conclusion chapter, which provides recommendations to managers and also recommends areas for future research. Chapter two delves deeper into the literature around these constructs on what is known, what is yet to be discovered, and the unknowns yet to be addressed by research in this area.

Chapter 2: Theory and Literature Review

2.1 Introduction

This study relied and sought to build on the works of Schmitt et al. (2018) and Smith and Lewis (2011), which used paradoxical thinking as the lens that enables the assessment of the tensions within organisations and their impact, to study the tensions between employee-driven innovation and organisational ambidexterity. This was done in an effort to understand how organisations can harness these tensions to ensure that, rather than impeding the organisation's progress, they fuel its progress, thereby driving or improving organisational performance, strategic renewal and overall readiness for the future.

2.2 Paradox Lens / Key Theoretical Tensions

Organisational Paradoxes are contradictory conditions that compete for resources simultaneously (Lewis, 2015; Smith & Lewis, 2011). 'Belonging' is about identity, and how an individual's contribution can fit into the whole organisation (Jena & Pradhan, 2018). People, as part of organisations, want to know and show that they matter. These are key outcomes and sometimes even contributors to employees participating in innovation, what is referred to as EDI (Panurach & Moosa, 2013; Wihlman, Hoppe, Wihlman, & Sandmark, 2015).

Tensions within organisations can be classified into three categories: i) learning versus resource perspectives; ii) induced versus autonomous, and iii) co-alignment versus co-creation (Schmitt et al., 2018). Schmitt et al. (2018) derived this categorisation by perusing literature and categorising the same based on the theoretical underpinnings relied on.

Smith and Lewis (2011) on the other hand categorised organisational tensions into four main areas: i) belonging, ii) learning, iii) organising, and iv) performing (Smith & Lewis, 2011). In this seminal work on organisational paradoxical thinking, Smith and Lewis (2011) studied the paradox literature of well over 360 articles in various leading journals, with the objective of identifying common themes and ultimately recommending a dynamic

equilibrium model of organising.

Borrowing from both views, this study confined itself to the tensions described as antecedents, where OA (learning) and EDI (resource perspective) are juxtaposed against each other in an effort to determine how value can be derived from the tensions between the two dimensions. The learning perspective relies on organisational learning theory to explain the tension between change and continuity within an organisation (Schmitt et al., 2018). The resource perspective, on the other hand, argues that an organisation's renewal is a product of realignment of resource bases to overcome its constraints and thus achieve the desired results (Jay, 2001; Schmitt et al., 2018). The tensions outlined by Schmitt et al. (2018) and Smith and Lewis (2011) are further analysed below.

Firstly, belonging is viewed through the perspective of the one experiencing it. Belonging is about the value people attach to their contribution, and how they are perceived within the organisation (Jena & Pradhan, 2018). This is more than just about people's physical contributions, that is, tangible items, it is also about emotions and spirituality (Jena & Pradhan, 2018; Smith & Lewis, 2011). Identity and self-worth are key drivers of EDI, particularly for employees with an aspiration to be part of something bigger than themselves. Such belonging is one of the reasons why employees would be keen to participate in EDI (above their daily jobs), as well as their commitment to the organisation and job satisfaction (Høyrup, 2010; Zhu et al., 2015).

Secondly, ambidexterity is about learning, by both the organisation and the people within it (Chiva, Alegre, & Lapiedra, 2007; He & Wong, 2004; Panagopoulos, 2016; Wei, Yi, & Yuan, 2011). The modern organisation needs to be able to exploit current opportunities, whilst preparing to remain relevant and sustainable in the future. This approach, when adopted and implemented, speaks to both the organisation's competitiveness and indeed, its raison d'être (Schmitt et al., 2018).

Thirdly, organising is about the day to day operations, processes and systems of an organisation (Smith & Lewis, 2011). As such, this aspect of the organising tension was not considered extensively in the current study. The focus was on both learning and belonging. After all, it is the day to day operations of the organisation that bring about the

need for belonging and learning (Jena & Pradhan, 2018; Smith & Lewis, 2011). In other words, without the principle of 'organising', the organisation does not exist.

Finally, performing is essentially about the success of the organisation as defined by its stakeholders (Awadallah & Allam, 2015; Kaplan & Norton, 1992; Smith & Lewis, 2011). The concept of performing takes several forms, including financial and non-financial ones (Awadallah & Allam, 2015; Kaplan & Norton, 1992). This aspect was studied in this case to the extent that it is brought about by the tensions between EDI and OA.

Schmitt et al. (2018) delved deeper into the respective tensions. The authors identified the tensions between belonging and learning to be about transforming or stabilising the organisation and focusing on what the organisation knows and is good at. Moreover, what is not sufficiently studied, are the specifics around how belonging (EDI) and learning (OA) influence each other. It is this question, which was the focus of this research.

This study has confined itself to the tensions or antecedents, where OA (learning) and EDI (resource perspective) are juxtaposed against each other in an effort to determine how business value can be derived from the tensions between the two dimensions. The learning perspective relies on organisational learning theory to explain the tension between change and continuity within an organisation (Schmitt et al., 2018). The resource perspective, on the other hand, argues that an organisation's renewal is a product of realignment of resource bases to overcome its constraints (as an organisation) and thus achieve the desired results (Jay, 2001; Schmitt et al., 2018).

2.3 Employee-Driven Innovation

Innovation has become a business imperative. The environment within which organisations operate has been described as volatile, uncertain, complex and ambiguous (VUCA) (Rodriguez & Rodriguez, 2015; Sinha, 2016). Therefore, the organisation, in its entirety, needs to be equipped to deal with this VUCA environment to ensure its growth and survival. In other words, organisations cannot afford to relegate innovation to back-office functions, which are seldom effective in implementing such ideas (Nicoară, 2012;

Teece, Peteraf, & Leih, 2016).

The need for innovation, especially the type driven by employees known as employee-driven innovation (EDI), is further accentuated by the fact that delegating innovation to just one department, such as Strategy, Business Development, Marketing or Research & Development, rather than diffusing it across the business has not yielded sufficient results for most organisations (Panurach & Moosa, 2013). This process is often done by leveraging the experiences of those that are at the coalface of daily interactions with customers and operational processes. This phenomenon is a further compelling reason for why further research in this area is warranted.

Nevertheless, EDI presents an organisation with several tensions due to competing interests between employees' everyday work and their propensity to get involved in innovation (Wihlman et al., 2015). EDI harnesses employees' willingness to be involved in innovation work outside their normal responsibilities (Panurach & Moosa, 2013). EDI is a useful tool that can be leveraged for employee creativity and knowledge (Kesting & Ulhøi, 2010). Employees, especially those who work directly with clients, possess some of the most creative ideas that are informed by clients' feedback (Laviolette & Redien-collot, 2016; Panurach & Moosa, 2013). Therefore, it can be argued that an organisation's employees are the most cost-effective way of designing solutions with a semblance of customer validation (where the employees can act as a proxy for customers).

Table 1: Additional EDI definitions

Additional EDI definitions
"EDI refers to the generation and implementation of new ideas products and processes originated by a single employee or by joint efforts of two or more employees." (Tirabeni et al., 2016, p. 149)
"EDI is defined as a new idea created by employees that results in a new, shared and sustainable routine" (Aaltonen & Hytti, 2014, p. 160)
"EDI encourages R&D and non-R&D employees to engage in innovation practices whatever their educational background and their position in the organization are." (Laviolette & Redien-collot, 2016, p. 228)

The table above provides other definitions of EDI presented by researchers. Moosa and Panurach (2008) argued that engaged employees become indispensable assets to the organisation when they are afforded the opportunity to be involved in influencing its strategic direction. The authors continued to assert that a model akin to EDI fosters a highly agile and flexible environment, where innovation is concerned, within the organisation.

Intrinsic motivation is when one receives no other reward for doing an activity except for any satisfaction derived from doing that activity itself (Deci, 1971). Whilst this form of motivation is a desired condition to drive EDI, its effects may be weakened by parallel implementation of monetary incentives (Kesting et al., 2016). Kesting and colleagues (2016) continued to argue that non-monetary incentives act on intrinsic motivators and build an innovation culture that allows employees to learn new skills, which, in turn, create growth opportunities.

The EDI model advanced by Kesting and Ulhiøi (2010) (see Figure 1) was deemed suitable for adoption in this study for the main reason that the model mimics the structures of organisations as it points to management, the organisation's environment and its culture. As such this simplified data collection as individuals who could speak to these areas within organisations were easily identifiable. The pillars of this model also align with some of the problems or challenges identified in section 1.3 which outlines the rationale

for the problem selection (Aaltonen & Hytti, 2014; Kesting et al., 2016; Laviolette & Redien-collot, 2016; Wihlman et al., 2015).

The framework is detailed below:

- Management support – employees have strictly defined roles which, in most cases, have little to do with idea generation. As such, employees are not expected to spend time on efforts geared towards generating new ideas. Kesting, Ulhiøi and Parm (2010) argued that where management support is high towards employees, EDI will be high as well. This management support can take the form of managers allowing or creating opportunities for their staff to attend meetings around get involved idea generation, and also providing them support, such as coaching and mentoring.
- Conducive environment for idea creation – EDI is enhanced by providing employees support, in the form of time, space (to think creatively and learn, whilst possibly making mistakes), and resources to generate ideas (Kesting et al., 2010). The workspaces where employees are stationed are expected to be fun, colourful, and adaptive to emerging trends (Moultrie et al., 2007).
- Decision structure – convoluted decision-making structures are not effective for innovation, as ideas often become obsolete in assessment before they can reach their potential (Kesting et al., 2010). As a result, it is important that clear criteria are outlined from the outset so that participating employees are clarified on the nature of the ideas required. Once these parameters are set, the next step is to outline the implementation process, with expected timelines.
- Incentives – incentive and reward schemes need to be based on positivity towards EDI (Kesting, Ulhiøi, & Parm, 2010). Emphasis should be placed on collective efforts, especially where teamwork is a key ethos to ensure that the appropriate behaviour is rewarded. Incentives will offset the fact that individuals will have to neglect their jobs (which often implies additional time of work required in order to catch up), even if momentarily, to work on these EDI initiatives (Kesting et al., 2010).
- Culture and climate – “Low power distance and legislative regulation of employee representation in management are positively related to higher levels of EDI” (Kesting, Ulhiøi, & Parm, 2010, p. 79). The organisation’s attitude towards failure is important. From the beginning, failure should be seen as an opportunity to learn

rather than an indication that one can never succeed. It is also important for employees to be viewed within the organisation as positive contributors.

2.4 Organisational Ambidexterity

Organisational ambidexterity (OA) is about competing interests or tensions between exploitation and exploration within an organisation (Chang, 2015; Lewis, 2015; Pa, 2015; Tushman, 2011; Wei et al., 2011). Ambidexterity studies the tensions between ensuring that an organisation currently performs as it ought to (exploitation) for survival and whether it prepares for the future by focussing on, and preparing itself for emerging trends (exploration) (Agostini, Nosella, & Filippini, 2016; Smith & Lewis, 2011). In their research, Alpkan and Gemici (2016) borrowed from several leading researchers (Adler, Goldoftas, & Levine, 1999; Menguc & Auh, 2008; Tushman & O'Reilly, 2012) to define ambidexterity as "the combination or a set of two discrete capabilities, namely exploration versus exploitation, alignment versus adaptability, radical versus incremental innovation, or flexibility versus efficiency is a rather new approach expected to combine the benefits of both possibilities" (p. 786). At the core of these competing interests are the resources dedicated by an organisation towards each area relative to other priorities. The exploration-exploitation relationship requires different organisational structures to work. This may not only be difficult but also costly to achieve within a single organisation (He & Wong, 2004). The table below provides more definitions for ambidexterity, which express sentiments not too dissimilar to the ones advanced in the definition by Alpkan and Gemici (2016) above.

Table 2: Additional OA Definitions

Additional OA Definitions
"An ambidextrous firm is one that is capable of both exploiting existing competencies and exploring new opportunities, and achieving ambidexterity enables a firm to enhance its competitiveness and performance" (Vrontis et al., 2017, p. 375)
"…have used the term ambidexterity to describe the ability of organizations to establish and maintain a balance of exploration activities (such as experimentation and search) and exploitation activities (such as implementation and execution)." (p. 55) (Zacher & Rosing, 2015, p. 55)
"…the ability to exploit the existing resources, competencies, and product-market, and simultaneously create platforms for future growth through innovation and experimentation." (p. 36) (Sinha, 2016, p. 36)

Ambidextrous organisations are more competitive and are fit for change as they are agile enough and ready to leverage both existing and new opportunities without compromising current organisational performance (Carayannis & Rakhmatullin, 2014; Tushman, 2011). As such, it is in the interest of an organisation's current and future stakeholders to ensure that an organisation establishes and continually maintains a balance between exploitation and exploration in its daily operations.

According to Panagopoulos (2016), OA has four main indicators, which include i) technology management, ii) resource management, iii) organisational learning, and iv) organisational behaviour. Technology (type, method and speed of deployment) has been identified as an important driver of ambidexterity across the multiple articles reviewed for this research, together with allocation of resources, learning and attitudes within the organisation. As a result, this model provided an appropriate tool with which to assess results against literature. Tying these pillars back to responsibilities of executives also allowed for easily targeted analysis, in that technology could for instance be traced back to the Chief Information (or Technology) Officer, learning to the executive responsible for human resources, organisational behaviour or simply culture to the Chief Executive Officer together with her executive team and resource management to line managers. These aspects are explored further below:

- Technology management – this indicator refers to the extent to which the organisation allocates resources to the technology related to exploitative versus explorative initiatives (Panagopoulos, 2016). Incremental innovations address existing needs, whilst radical innovations serve emerging opportunities.
- Resource management – this indicator addresses how the organisation balances resource allocation between explorative and exploitative initiatives (Panagopoulos, 2016). This is an indicator of organisational priorities, as well as dictated by which initiatives yield the highest return on investment. Ultimately, management needs to decide on how much of the organisation's resources will be dedicated towards exploration, and how much towards generating income to keep the entity as a going concern.
- Organisational learning – this indicator relates to the culture of the organisation, the beliefs of the employees and the external environment (Panagopoulos, 2016).
- Organisational behaviour – as it is critical to balance exploration and exploitation, this indicator focuses on the organisation's attitude towards this continuum between the two (Panagopoulos, 2016). A complete focus on exploitation may leave the organisation behind whilst its competitors plan for the future. A total focus on exploration means that the organisation may not generate any current income, and cease to exist as a consequence.

In the final analysis, paradoxical thinking lays bare the existing tensions within organisations such as those within EDI (between an employee's everyday work and involvement in innovation); those within OA (exploitation versus exploration), as well as those tensions that exist between EDI and OA. Hence the principal question that this research sets out to establish is how the tensions between EDI and OA influence an organisation's performance.

Due to the rapidly changing environment, mainly driven by technology, organisations are constantly under pressure to justify their existence (Tushman, 2011). This has put pressure on organisations to keep reinventing themselves in an effort to remain relevant and competitive. It has, therefore, become a business imperative for an organisation to constantly elevate its ambidexterity capabilities.

At its fundamental level, this study is about organisational renewal, about how and why an organisation remains relevant and in existence. The study is about OA and EDI and their competition for resources, and how despite this the two can still be complementary to advance the organisation (Schmitt et al., 2018). It is this delicate balance between EDI and OA, and how it is managed to extract optimum value, which this study seeks to establish. The tensions between exploration and exploitation are explored further in section 2.6.2.

2.5 Organisational Performance

2.5.1 Organisational Competitiveness

Competitive advantage refers to how positively an organisation fares when compared to competitors within its industry (Anning-Dorson, 2016; Kwayu, Lal, & Abubakre, 2018; M. E. Porter, 2000). An organisation is said to have a competitive advantage if it implements strategies that no rival organisations, or any potential entrants, are implementing at the same time (Barney, 1991; Coccia, 2017; Kumar & Pansari, 2016; Wadhwani & Jones, 2017). This research relied on the below indicators that influence an organisation's competitiveness (Zheng, Brown, & Dev, 2009).

- Market differentiation **–** the market differentiation advantage happens when an organization builds an image that stands out in the customer's mind, as well as providing superior service relative to its competitors (Zheng et al., 2009). The organisation then attains loyalty from its customers.
- Innovation differentiation **–** the innovation differentiation advantage occurs when an organisation assumes a leadership position, by way of investment in Research and Development (R&D) and use of technology (Zheng et al., 2009). This organisation would then aim to be the first to market with these initiatives in order to ensure that it takes full advantage of the distinct offering it delivers to the market.

The above innovations are clearly internal (Zhou et al, 2009). As a result, these innovations would affect the value chain of the organisation. To achieve any material

impact, these innovations must be integrated into the organisation's value chain (M. Porter, 2001).

2.5.2 The Balanced Scorecard

The Balanced Scorecard (BSC) has remained the benchmark of strategy performance measures since its inception (Awadallah & Allam, 2015; Kaplan & Norton, 1992). In the intervening decades since its development, there have been criticisms around its practicality. According to Awadallah and Allam (2015), some critics have argued that there are "serious limitations in concept and in practice" (p. 95). Despite several criticisms, the authors concede that the BSC remains one of the most widely used performance measurement tools. As a result, to ensure applicability of insights to be drawn from this research, the BSC will be deployed as the measurement tool of choice in this study for organisational performance.

Kaplan and Norton (1992) designed the BSC as a tool with four pillars: i) financial, ii) customer, innovation and learning, and iv) internal business perspectives.

- Financial Perspective – pertains to how the organisation is perceived by shareholders.
- Customer Perspective – pertains to how the organisation is perceived by customers.
- Innovation and Learning Perspective – pertains to the organisation continues to create value for both shareholders and customers.
- Internal Business Perspective – pertains to what the organisation must excel at, and what aspects differentiate it from its competitors.

2.6 Internal Tensions

The internal tensions explored below are significant in relation to the research, which focusses on the (external) tensions between EDI and OA. Indeed EDI and OA tensions could still be studied without looking into the internal tensions, however outlining these tensions further enriches the research by holding a magnifying glass to the multiplicity of

competing forces in this study (within and between constructs) and the sheer complexity of the constructs themselves.

2.6.1 Organisational Ambidexterity – Exploration versus Exploitation

The tensions within ambidexterity are based on exploration and exploitation. Ambidexterity seeks to help organisations decide where to position themselves on the continuum between exploration and exploitation in order to achieve its present-day objectives whilst setting up solid foundations for success in the future (Agostini et al., 2016; Nitsenko, Nyenno, Kryukova, Kalyna, & Plotnikova, 2017; Sinha, 2016; Tushman & O'Reilly, 2011). These tensions manifest themselves at various levels, such as an individual, group or organisational level (Raisch, Birkinshaw, Probst, & Tushman, 2009).

The tensions that are central to ambidexterity have been studied from various perspectives. One of these perspectives has been to explore the four main tensions highlighted by researchers around the topic (Raisch et al., 2009). The tensions revolved around:

- Should organisations seek to achieve ambidexterity through differentiation or integration? Differentiation is about whether there will be a clear separation between the exploration and exploitation processes of ambidexterity (Raisch et al., 2009; Sinha, 2016). On the other hand, integration pertains to a process where the lines between exploration and exploitation are blurred. This means that exploration and exploitation processes are undertaken interchangeably with no clear separation between the two.
- Do organisations approach ambidexterity through the prism of individuals within the organisation or at the level of the organisation as a whole? This tension is about whether ambidexterity becomes apparent at an individual or at the macro or organisation level (Raisch et al., 2009; Sinha, 2016). Are the capabilities to enable ambidexterity rooted in the individual's ability to explore and exploit or are these ambidexterity capabilities driven by the organisation's processes, structures and culture?
- In order to achieve optimal results, which approach between a static and

dynamic one will yield the best results? This tension is about whether exploration and exploitation would be consecutive or whether these would be simultaneous (Li, 2019; Raisch et al., 2009; Sinha, 2016).

- Which one is the best way to inculcate ambidexterity; should the organisation focus internally or can inspiration be drawn from external sources to drive ambidexterity (Li, 2019; Raisch et al., 2009)? Do organisations tackle exploitation and explorations by focussing on their own internal strengths and competencies? Alternatively, do opportunities exist for organisations to leverage external knowledge particularly around exploration?

The first of these tensions is around differentiation and integration. Differentiation is about whether there will be a clear separation between the exploration and exploitation processes of ambidexterity (Raisch et al., 2009). Integration, on the other hand, speaks to a process where the lines between exploration and exploitation are blurred (Raisch et al., 2009; Tushman & O'Reilly, 2011), meaning that exploration and exploitation processes are undertaken interchangeably with no clear separation between the two.

The second tension is between the individual and the organization. This tension is about whether in the organisation in question, ambidexterity becomes apparent at an individual or at the macro level which is the level of the organisation (Raisch et al., 2009). Are the capabilities to enable ambidexterity rooted in the individual's ability to explore and exploit or are these ambidexterity capabilities driven by the organisation's processes, structures and culture? Static as opposed to dynamic approaches to ambidexterity constitute the third tension. The final tension is about whether sources of ambidexterity will be external or internal.

Knight and Harvey (2015) also argued that ambidexterity tensions experienced within organisations span across three categories: i) knowledge, ii) learning, and iii) motivation. Knowledge tensions become pronounced where one's knowledge is their social currency or key differentiator. The same researchers also found that these knowledge tensions often stifled collaboration in the creative industry. Naturally, this led to unhealthy competition amongst colleagues.

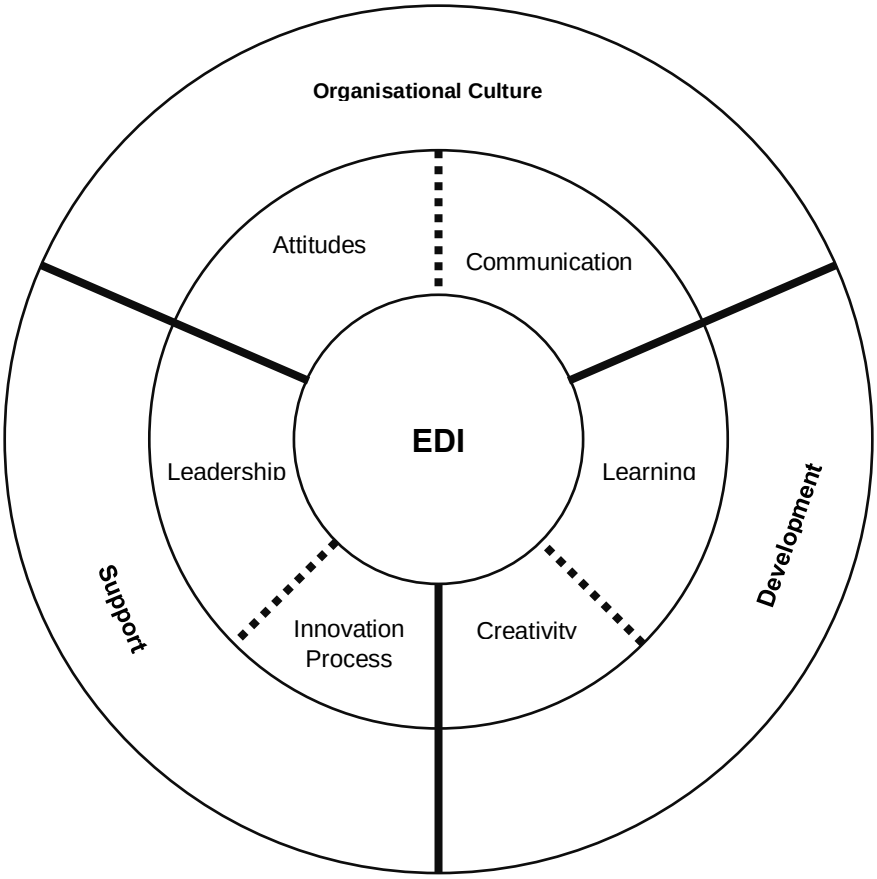
The tensions outlined by Knight & Harvey (2015) and Raisch et al. (2009) may portray a semblance of contradiction. However, upon perusal of the two papers, it becomes clear that the two are complementary to one another. It may be of assistance to the reader to demonstrate how this complementarity is manifested.

On this note, Knight & Harvey (2015) proposed tensions around knowledge, learning and motivation, whilst Raisch et al. (2009) focused on whether organisations should set out to achieve ambidexterity through differentiation or integration; whether the organisation should concern itself with addressing individual or organisational requirements in order to ultimately unlock the organisation's performance potential through ambidexterity; the third tension they proposed concerned itself with the perspective to be adopted, if this ought to be static or dynamic. Finally, the researchers inquired about what balance of externalisation as opposed to internalisation of processes ought to be pursued to achieve ambidexterity.

It is worth noting that Knight and Harvey (2015) conducted their study with a particular focus on the creative industry, whilst Raisch et al. (2009) reviewed several published works on the subject of ambidexterity culminating in the four outlined tensions. Thus, Knight and Harvey's (2015) work would be a subset of the seminal work by Raisch et al. (2009). This borrowed from both research papers, and took into consideration both accounts, testing the theories in a multiplicity of industries (with a particular focus on the financial services sector) in the cities of Johannesburg and Pretoria.

2.6.2 Employee-driven innovation – Day to Day Work versus Innovation

EDI tensions revolve around what nature of work employees should concern themselves with at any given time. As a result, this affects such issues as what amount of time employees need to dedicate to innovation as opposed to their day-to-day work. The framework below outlines the drivers of EDI (Wihlman et al., 2015). These drivers contribute to the tensions between day-to-day work and involvement in innovation.



Source: **(Wihlman et al., 2015)**

Figure 1: Drivers of EDI

2.6.2.1 Organisational Culture: Attitudes and Communication

The organisation's culture influences an employee's propensity to participate in innovation rather than focusing only on their job (Anning-Dorson, 2016; Kesting et al., 2016; Kesting & Ulhøi, 2010). This aspect is also linked to how hierarchical the organisation is. Where senior managers and executives feel that innovation is for the preserve of those in high positions (Wihlman et al., 2015). This often discourages junior-level employees from participating in innovation efforts. Communication is key to the innovation process. This includes communication on what opportunities exist and further communication at different stages of the innovation initiatives. These communication interventions serve not only to let the rest of the organisation become aware of what is happening but act as motivation

for employees to get involved.

2.6.2.2 Development: Learning and Creativity

EDI provides an opportunity for organisations to address problems faced by the organisation, as determined by employees themselves, rather than as imposed by management. This is based on employees' varied experiences and their learnings within the organisation in their daily work. This is viewed as an exemplary bottom-up approach to innovation (Wihlman et al., 2015). In the current VUCA environment (Martin, 2014), employees need to be constantly learning and generating creative solutions for the problems that are prevalent in the 21st century, with a view to driving their organisations forward. The extent to which employees are willing to improve their own skills, and generate creative ideas contributes to whether or not they will end up being involved in innovation initiatives within the organisation or not (Bäckström & Lindberg, 2019; Wihlman et al., 2015).

2.6.2.3 Support: Leadership and Innovation Process

For EDI to flourish, it needs effective processes to be put in place to support and encourage it. Processes and clear leadership ensure the reinforcement of desirable innovative behaviour for employees (Wihlman et al., 2015). These programs need to be prioritised by executive management. There may also exist behaviours that will not be conducive for an innovative culture. These processes should discard such behaviours, with compassion to the perpetrators. Leadership support also refers to ensuring that employee workload allows them to participate in innovation initiatives (Bäckström & Lindberg, 2019). Clear innovation processes and leadership support in an organisation will ensure both employees' participation in such initiatives and the prolongation of such EDI interventions (Wihlman et al., 2015).

2.7 Conclusion

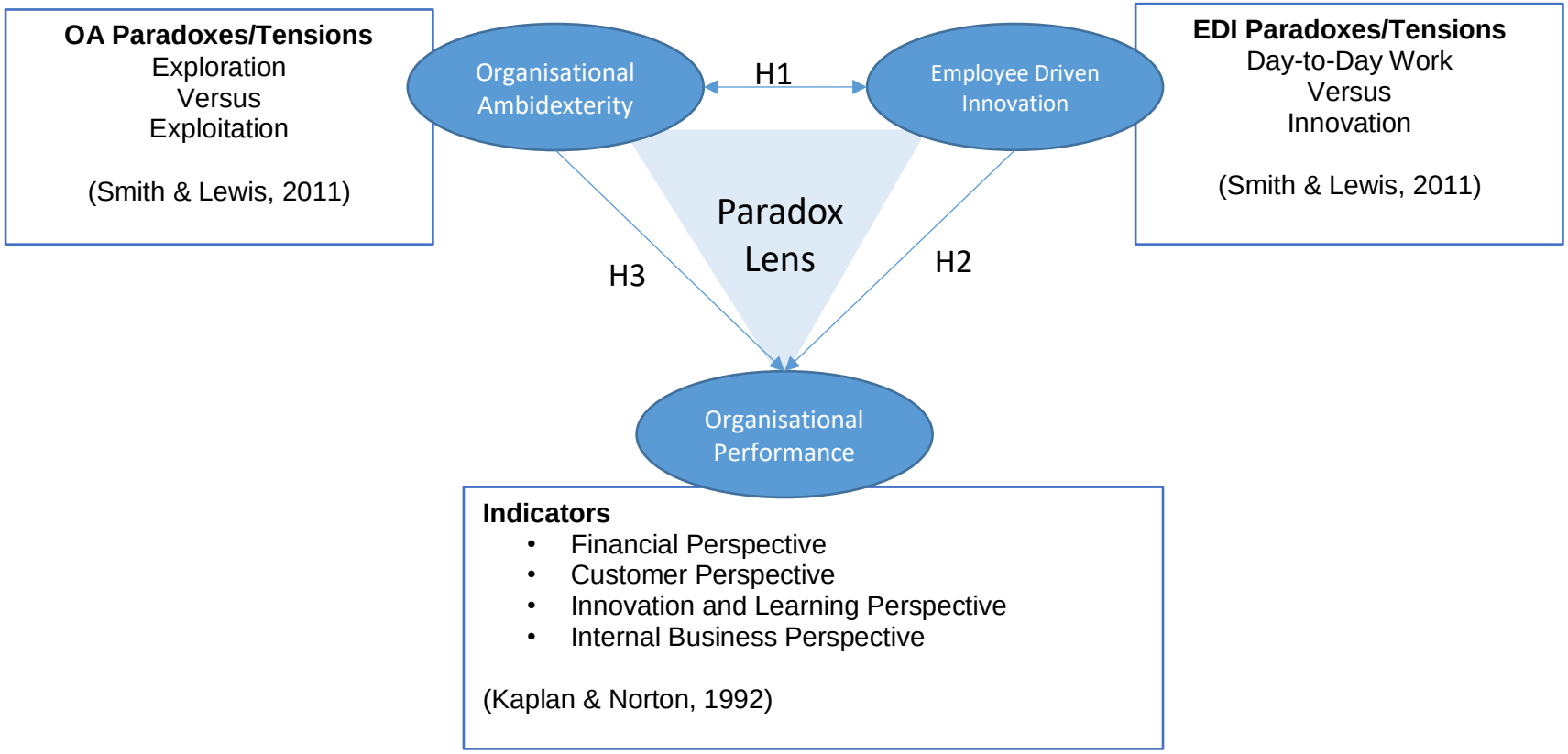


Figure 2: The Research Conceptual Model

2.7.1 What is known

- Organisational tensions are pervasive, and they include i) belonging, ii) learning, iii) organising, and iv) performing (Smith & Lewis, 2011).
- Delegating innovation to single departments has not proven widely successful (Panurach & Moosa, 2013).
- EDI presents tensions for employees on how to balance everyday work with innovation work (Wihlman et al., 2015); Panurach & Moosa, 2013).
- Indicators for EDI include management support, conducive environment for idea creation, decision structure, incentives and finally, and culture and climate (Kesting et al., 2016).
- Tensions exist within ambidexterity in the form of exploitation and exploration (Chang, 2015; Lewis, 2015; Pa, 2015; Tushman, 2011; Wei et al., 2011).
- OA indicators are technology management, ii) resource management, iii) organisational learning, and iv) organisational behaviour (Panagopoulos, 2016).
- Tensions exist between EDI and OA (Smith & Lewis, 2011).
- Tensions exist between EDI and OP (Smith & Lewis, 2011).
- Tensions exist between OA and OP (Smith & Lewis, 2011).

2.7.2 What is unknown

- The extent of the tensions between EDI and OA, and how they manifest in South African organisations.
- The extent of the tensions between EDI and OP, and how they manifest in South African organisations.
- The extent of the tensions between OA and OP, and how they manifest in South African organisations.

Chapter 3 focuses on the research questions and the hypotheses, which form the core of this study.

Chapter 3: Research Questions

3.1 Introduction

This research seeks to answer the question on the interaction or tensions between OA and EDI, and how these tensions influence the performance of an organisation. OA and EDI have been separately extensively studied. However, these studies have rarely been expanded to study the interaction between the two concepts (Smith & Lewis, 2011). Through the organisational paradox lens (Schmitt et al., 2018; Smith & Lewis, 2011), the tensions between EDI and OA, and how these affect organisational performance were studied in this research paper. Moreover, research has already established tensions within each of the three constructs being studied. In fact, ambidexterity, for instance, is itself considered a paradox (Knight & Harvey, 2015; Smith & Lewis, 2011). EDI is also not devoid of internal tensions, as it focuses on innovation efforts driven by employees for whom it is not a core job. As such, these employees struggle to balance their daily work with involvement in innovation initiatives (Panurach & Moosa, 2013; Wihlman et al., 2015).

3.2 Research Hypotheses

The delineation in chapter two outlined tensions between exploration and exploitation within ambidexterity (Knight & Harvey, 2015; Lewis, 2015; Sinha, 2016). In addition, there are internal tensions within EDI (Panurach & Moosa, 2013; Wihlman et al., 2015). Organisational performance usually presents limited tensions, as this is usually accepted to point to the sustainability (through both financial and non-financial measures) of the organisation, (Ilhan & Zeynep, 2012; Saunila & Ukko, 2012; Zheng et al., 2009). Contestations may arise on measurements. Smith and Lewis's Theory of Paradox (2011) provides the connector among OA, EDI and OP. The relationships as outlined in the literature are depicted below:

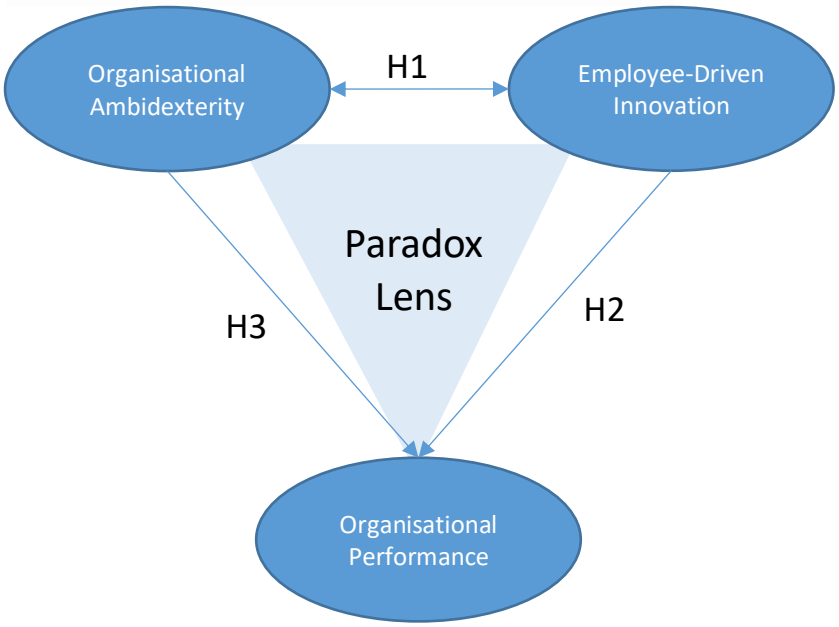


Figure 3: Hypotheses Testing

3.2.1 Hypothesis One:

- $H1_0$: There is no statistically significant relationship between Ambidexterity and Employee-Driven Innovation.
- $H1_A$: There is a statistically significant relationship between Ambidexterity and Employee-Driven Innovation.

3.2.2 Hypothesis Two:

- $H2_0$: There is no positive statistical relationship between Employee-Driven-Innovation and Organisational Performance.
- $H2_A$: There is a positive statistical relationship between Employee-Driven-Innovation and Organisational Performance.

3.2.3 Hypothesis Three:

- $H3_0$: There is no positive statistical relationship between Organisational Ambidexterity and Organisational Performance.

- $H3_A$: There is a positive statistical relationship between Organisational Ambidexterity and Organisational Performance.

3.3 Conclusion

The hypotheses outlined above aided in testing how the OA and EDI constructs interact, as well as how these tensions can be harnessed to improve organisational performance. The methodology for testing the hypotheses is outlined in the next chapter.

Chapter 4: Research Methodology and Design

4.1 Introduction

This chapter outlines the research methodology followed to obtain the results. It covers the choice of methodology, philosophy adopted, the approach that was taken, furthermore in terms of the detailed methodological choices it outlines the strategy, time horizon, techniques and procedures, population, unit of analysis, sampling method and size, measurement instruments, data gathering process and the penultimate sections in the chapter are dedicated to the analysis approach taken, quality controls that were put in place to ensure validity and trustworthiness of the data, finally the limitations of the research methodology adopted. The main difference between quantitative and qualitative research is in their flexibility, the latter is more for building new theories whilst the former tests or measures already existing concepts (Jeffery A. Gliner & Morgan, 2000; Jeffrey A. Gliner, 2000; Saunders & Lewis, 2018).

4.2 Choice of Methodology

This study adopted a positivist paradigm, deductive approach, explanatory research, and quantitative method. The selection rationale was based on the kinds of questions that paradoxical thinking seeks to address, as well as what is already known about the constructs of interest in this research. Paradoxical thinking poses questions about how organisations simultaneously manage tensions between competing interests (Smith & Lewis, 2011). These reasons are outlined in the sections below. The main research question is as follows:

- How do the tensions between EDI and OA influence an organisation's performance?

4.3 Philosophy

Positivism is the philosophical research approach often adopted by natural scientists (Saunders & Lewis, 2018), which is fostered by the theoretical basis of the research. Positivism is structured and can facilitate the generalisation of results due to the formulaic approach adopted. Positivism also concerns itself with variables which are measurable. This study of EDI, OA and OP was within the context of an organisation and also sought to understand, from its respondents, the measurements (using a Likert scale) they would attach to the prevalence of certain variables within their organisations (Donaldson, 1997; Saunders & Lewis, 2018).

4.4 Approach

A deductive approach was adopted in this study. Deduction, as opposed to an inductive approach, tests theoretical propositions using questions developed from the underlying theories (Burkhardt, 2012; Saunders & Lewis, 2018). Smith & Lewis's (2018) model details organisational tensions including those between belonging (EDI), learning (OA), and performing. These tensions were tested in this research through inferences made from questionnaire responses about the meanings that actors within organisations relate to certain phenomena.

4.5 Methodological Choices

4.5.1 Strategy

The theory on OA, EDI and OP is established as can be seen from chapter two. However, in order to test it, a questionnaire was deemed to be the most appropriate tool to deploy (Saunders & Lewis, 2018). The questionnaire was sent through email and WhatsApp to employees and executives across a broad range of organisations such as Sanlam, MiWay Life and Nedbank. These organisations were selected due to the researcher's access to them. Based on the snowball sampling process of the questionnaire distribution, it is expected that respondents from other organisations would have provided responses as well since initial participants were encouraged to share the questionnaire widely.

4.5.2 Time horizon

Due to resource and time constraints, a longitudinal study, which would have been ideal in this situation, was deemed not viable (Saunders & Lewis, 2018). The longitudinal study would have afforded the researcher the opportunity to observe the impact of interventions, measuring results at the beginning and end of such interventions. Instead, a cross-sectional study was undertaken, which allowed the researcher to record and analyse the behaviours and/or attitudes of participants towards EDI, OA, and OP (Saunders & Lewis, 2018).

In their research onion, Saunders and Lewis (2018) present several research methodologies that could be employed depending on both the nature and focus of the research. Surveys are often more suitable for collecting feedback amongst business participants as they provide a convenient data collection method with which they are familiar (Saunders & Lewis, 2018).

4.5.3 Techniques and Procedures

Techniques are the preferred methods of collecting data, whilst research procedures are the methods employed in analysing the collected data (Saunders & Lewis, 2018). Questionnaires were sent electronically via email and/or WhatsApp to participants. The data was then analysed using the IBM SPSS and Microsoft Excel through the use of descriptive and analytical statistics (Saunders & Lewis, 2018).

4.5.4 Population

Saunders and Lewis (2018) define the population as “the complete set of group members” (p. 138). The relevant population for this study included those individuals within organisations charged with the responsibility of driving innovation, as well as strategic managers. Moreover, due to the EDI aspect of the research, even mid-level and junior employees were targeted to complete the surveys. As a result, the population for this

research included employees at all levels of the organisation. To ensure the generalisability of the results, a minimum participant to variable ratio of 10:1 is advisable (Schönbrodt & Perugini, 2013; Schröder & Yitzhaki, 2017). However, this research targeted a ratio of between 20 and 25 respondents for each measured variable to strengthen the reliability and generalisability of the results (Schönbrodt & Perugini, 2013). This target was not attained though, further details on this are discussed in chapters 5 and 6.

4.5.5 Unit of Analysis

A unit of analysis refers to the primary focus or subjects of the research (Gronn, 2002). As outlined in section 4.5.4 above, the unit of analysis comprised of all employees within organisations from junior staff to executives. EDI seeks to shift the innovation thinking away from just being about a certain department to effectively democratise the innovation process across the entire organisation (Bäckström & Lindberg, 2019; Høyrup, 2010). Similarly, learning (or OA) is a process that cascades throughout the organisation for it to effectively negotiate the exploration-exploitation tension with dexterity (Lewis, 2015; Smith & Lewis, 2011; Tushman & O'Reilly, 2011). As such, in selecting the sample, a deliberate effort was made to ensure that employees across all levels of the organisation were represented.

4.5.6 Sampling Method and Size

It would have been cumbersome and virtually impossible to include every single member of the population within this study based on the description in section 4.5.4. As such, sampling became critical. A purposive non-probability sampling method was adopted for this study (Saunders & Lewis, 2018; Schröder & Yitzhaki, 2017). Whilst the initial sample included employees from organisations included in section 4.5.1, through snowball sampling, respondents were requested to share the questionnaire with colleagues and friends meeting the population criteria outlined in section 4.5.4. It is reasonable to expect, therefore, that employees from other organisations not initially targeted would have

provided responses to the questionnaire. If anything, this has only served to enrich the results of the research, rather than weakening the study.

4.5.7 Measurement instrument

In evaluating a measurement, it is important that its reliability and validity are beyond reproach (Saunders & Lewis, 2018). These criteria were critical in evaluating any measurement tool that could be deployed to ensure the reliability of generated results. Quantitative research presents unique challenges. Unlike in qualitative research, where interview questions could be amended following feedback from initial interviews, this opportunity is not available with questionnaires. In order to mitigate this risk, the questionnaire was sent to an initial cohort of five participants. Their responses were studied and modifications made to the questionnaire as required. A case in point was, despite having run several tests before sending the questionnaires, feedback was received from some participants who identified as female pointing out that the questionnaire would not allow them to proceed further to subsequent sections. Upon investigation, this was found to be due to a technical error in the setup of the questionnaire. This was immediately rectified. This error, however, did lead to a total of 10 respondent results that could not be considered in the analysis as they were incomplete.

4.5.8 Data Gathering Process

The questionnaire approach is widely considered to be a cost-effective and convenient way of collecting data (Saunders & Lewis, 2018), especially in the business setting. The questionnaire consisted of six sections as follows:

- Section A contained an outline of the research explanation on why the employee should participate.
- Section B covered the employee's demographics.
- Sections C to F contained questions pertaining to the participants' ratings of stated hypotheses.
    - Section C: Construct 1 – Employee Driven Innovation
    - Section D: Construct 2 – Organisational Ambidexterity

- Section E: Construct 2 – Organisational Performance
- Section F: EDI and OA tensions – confirmatory questions meant to validate or disprove responses received in Sections C to E.

Participants were requested to respond to questions on a five-degree Likert scale (Joshi, Kale, Chandel, & Pal, 2015). The use of the five-degree scale enables comparison of results with similar studies that were conducted previously on EDI and OA (Akdoğan, Cingöz, & Akdoğan, 2016; Beaven & Matlay, 2014; Joshi et al., 2015).

4.6 Analysis Approach

Descriptive and analytical tools were used in both Microsoft Excel and IBM SPSS to determine relationships between the stated variables. Data is displayed through charts and tables for ease of reading and interpretation.

4.7 Quality controls – including validity/ trustworthiness criteria

Before analysis, the collected data was first verified for validity and reliability. Reliability is the extent to which a dataset well and truly represents what it purports to represent (Saunders & Lewis, 2018). To this end, all factors that could compromise the reliability of the data were eliminated from the analysis. On the other hand, validity is concerned with the extent to which the data collection method measures what they were meant to measure (Bandalos & Finney, 2010; Saunders & Lewis, 2018). In addition, this is also about the extent to which the research findings accurately represent what they claim.

The Exploratory Factor Analysis (EFA) was used to determine the nature of relationships between the constructs. EFA was chosen precisely because this study does not rely on already existing measurement tools, it seeks to establish the pattern and form of the relationship between the variables of OA, EDI, and OP (Bandalos & Finney, 2010; Thompson, 1997).

Cronbach's Alphas for responses to each statement were calculated to determine the extent to which results would improve if the particular statements were omitted from the analysis (Vogt, 2011). Where marked improvements could be determined, such statements were then excluded from the analysis. It is not uncommon to see journal articles with Cronbach's Alphas of 0.60, but 0.80 and above is the desirable threshold (Jeffrey A. Gliner, 2000).

4.8 Limitations

- Certain parts of the population could not be represented due to the level of access and time constraints.
- The mood of respondents, at the time of completing the questionnaire, could have affected the results since this is a cross-sectional study measuring perceptions at a given point in time.
- Due to the limited nature of the study, the research focused on organisations operating predominantly in Johannesburg and Pretoria, at least, from the initial list sent out. As such, responses may be skewed towards the contexts of these two cities for which a legitimate argument of non-representation of all South African organisations can be made.
- Replicability of results may be a challenge due to the representation of organisations engaged, and the overall number of participants who responded.

4.9 Conclusion

This chapter detailed the methodology followed to collect, analyse and interpret the data, as well as protecting its integrity. This ensures that the results remain an accurate representation of respondents' views. The chapter also explained the methods, tools and processes selected and the rationale for adopting them in particular. Data were collected from participants as outlined in 4.5.4 and 4.5.5 above. The results collated from the data collection process are outlined in the chapter that follows.

Chapter 5: Results

5.1 Introduction

This research adopted a quantitative approach and collected data using a questionnaire, which was sent to 513 potential respondents. The data collected are to answer the three research hypotheses. This chapter outlines the research findings, with a view to responding to the research hypotheses. Thus, this chapter will focus on the following sections:

- Response rate
- Descriptive information
- Descriptive statistics from questionnaires' responses
- Reliability and validity
- Hypothesis testing

5.2 Response Rate

There were 513 surveys sent out, with 198 respondents completing the survey. However, only 172 (87%) of the completed questionnaires were usable. Due to an initial error in how the questionnaire was designed, the first 10 surveys received from respondents who identified as female had to be deleted, as the surveys only recorded the biographical data and not their overall responses on the rest of the questions. This technical error was fixed the moment it was raised. The remaining 16 surveys were deleted because the respondents did not provide responses to all questions. This too was rectified by making the answering of all questions mandatory. Thus, the final number of valid and usable responses was 172.

5.3 Descriptive Information

This section of the chapter outlines the description of the respondents of the survey. The description of the respondent is a critical component of understanding the context within

which results are interpreted (Saunders & Lewis, 2018; Schröder & Yitzhaki, 2017). For example, respondents could be 85% female, which would imply that the results in that instance would mainly apply to females and not males. As part of the questionnaire, three questions were asked to elicit a description of the respondents, namely: i) gender, ii) highest education, and iii) role classification in current employment.

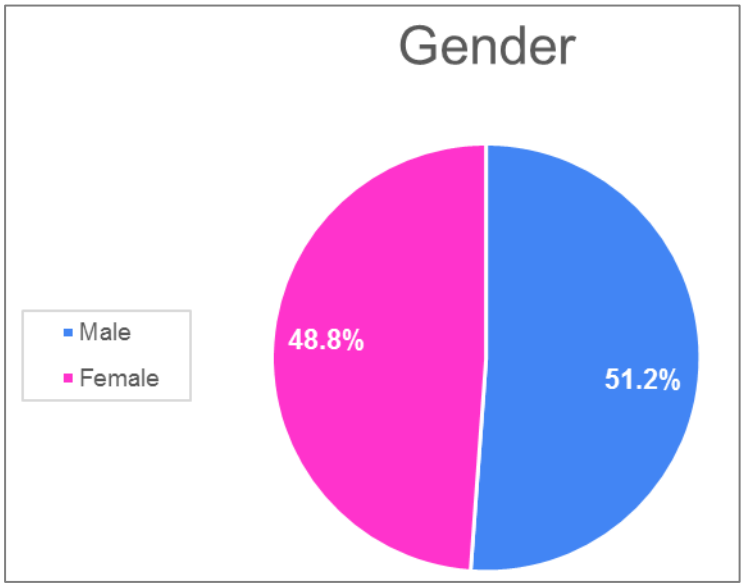


Figure 4: Gender

Figure 4 shows that of the 172 respondents who participants who took the survey, 84 were female whilst 84 were male. Thus there was a fair gender representation within the participants who responded.

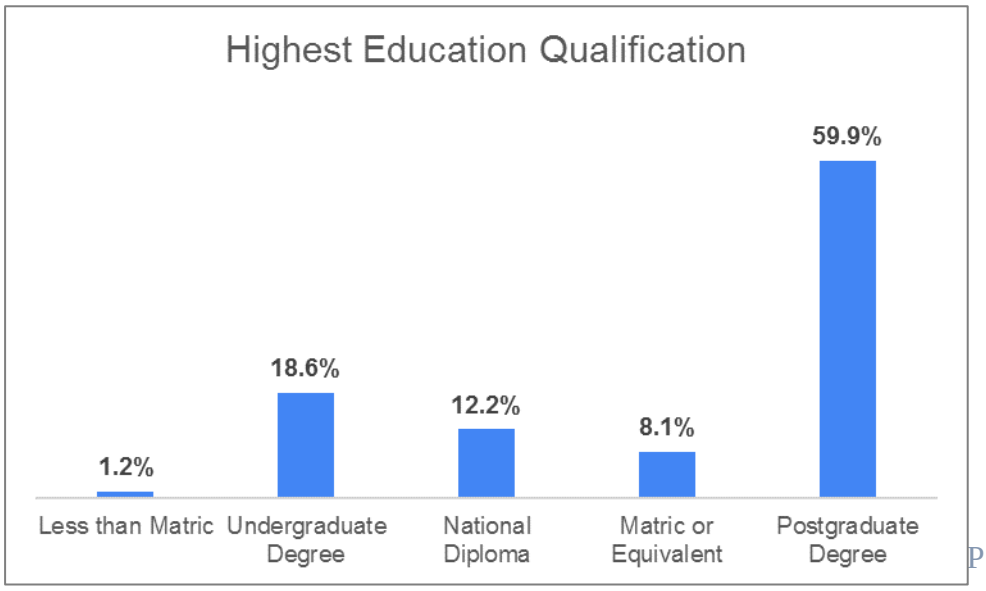


Figure 5: Highest Education Qualification

Figure 5 shows that 59.9% of the total respondents who participated in this research had a postgraduate degree as the highest education qualification. 9.3% of the total respondents had a matric or less, which means that 90.7% of the respondents had some form of post-matric education.

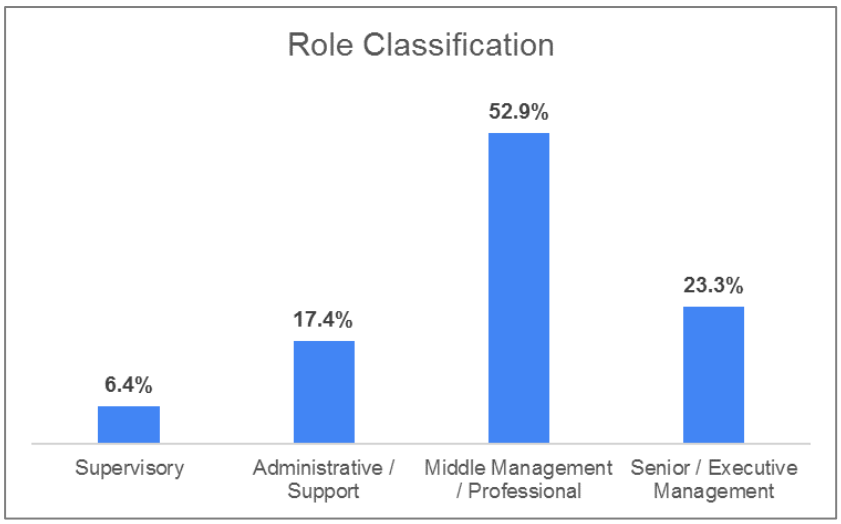


Figure 6: Employment Role Classification

Figure 6 indicates that the majority of the respondents were in Middle Management / Professional roles. Overall, 76.2% of the respondents held roles at the middle and senior levels in their organisations.

5.4 Descriptive statistics of the questionnaires responses

This section is aimed at depicting a descriptive view of the statements that respondents mostly agreed with and least agreed with. In addition, this also shows which answer was most frequently chosen for each statement.

Employee Driven Innovation - Statements	Mean	Standard Deviation	Variance	Kurtosis	Mode	Skewness	Minimum	Maximum	Range
Management views employees' new ideas as a threat or an attack on them.	2.65	1.27	1.61	(0.93)	3.00	0.21	1.00	5.00	4.00
My manager supports me in implementing new/good ideas as soon as possible.	3.58	1.18	1.40	(0.50)	3.00	(0.51)	1.00	5.00	4.00
My organisation provides employees with platforms for inspiration and idea generation.	3.17	1.28	1.64	(0.94)	3.00	(0.23)	1.00	5.00	4.00
My organisation provides employees time and resources to put ideas and innovations into practice.	2.87	1.21	1.47	(1.01)	4.00	(0.03)	1.00	5.00	4.00
When something does not function well at work, I try to find new solutions.	4.15	0.90	0.82	2.12	4.00	(1.31)	1.00	5.00	4.00
When I have a new idea, I try to persuade my colleagues of it.	3.88	0.99	0.99	0.61	4.00	(0.91)	1.00	5.00	4.00
My organisation has a clearly defined and transparent process for new ideas to progress through to implementation.	2.97	1.33	1.78	(1.15)	2.00	0.11	1.00	5.00	4.00
The way of remuneration in our organisation motivates employees to suggest new things and procedures.	2.51	1.21	1.47	(0.90)	3.00	0.29	1.00	5.00	4.00
My manager always financially rewards good ideas (e.g. through increases and good bonuses).	2.09	1.14	1.31	(0.24)	1.00	0.78	1.00	5.00	4.00
The social environment within my organisation encourages creative behaviour.	2.78	1.20	1.44	(0.94)	3.00	0.08	1.00	5.00	4.00
My organisation tolerates mistakes and errors during the implementation of something new.	2.84	1.08	1.16	(0.63)	3.00	(0.14)	1.00	5.00	4.00
Overall	3.04	0.63	0.39	(0.10)		(0.16)	1.27	4.45	3.18

Table 3: Employee Driven Innovation

Table 3: Employee Driven Innovation shows the results of the employee-driven innovation section.

- In the main, respondents agreed with the following statement: ***When something does not function well at work, I try to find new solutions.*** This statement also has the lowest standard deviation, highest kurtosis, lowest skewness and a mode of 4.

- The one statement that most respondents disagreed with the following statement: ***My manager always financially rewards good ideas (e.g. through increases and good bonuses).*** However, this statement did not have the worst kurtosis value and standard deviation relative to other statements as outlined above but it did have a mode of 1.

Organisational Ambidexterity - Statements	Mean	Standard Deviation	Variance	Kurtosis	Mode	Skewness	Minimum	Maximum	Range
My organisation looks for novel ideas by thinking "outside the box."	3.26	1.22	1.48	(0.89)	3.00	(0.17)	1.00	5.00	4.00
My organisation bases its success on its ability to explore new ideas or technologies.	3.01	1.19	1.42	(0.85)	3.00	0.14	1.00	5.00	4.00
My organisation creates products or services that are innovative to the firm.	3.17	1.22	1.49	(0.85)	3.00	(0.11)	1.00	5.00	4.00
My organisation aggressively ventures into new market segments.	3.13	1.25	1.56	(0.96)	3.00	(0.11)	1.00	5.00	4.00
My organisation actively targets new customer groups.	3.15	1.30	1.70	(1.03)	4.00	(0.25)	1.00	5.00	4.00
My organisation looks for creative ways to satisfy its customers' needs.	3.45	1.17	1.37	(0.63)	4.00	(0.40)	1.00	5.00	4.00
My organisation is committed to improving quality and lowering costs.	3.70	1.20	1.45	(0.59)	5.00	(0.58)	1.00	5.00	4.00
My organisation continuously seeks to improve the reliability of its products and services.	3.73	1.07	1.14	(0.06)	4.00	(0.64)	1.00	5.00	4.00
My organisation increases the levels of automation in its operations.	3.24	1.15	1.32	(0.66)	3.00	(0.12)	1.00	5.00	4.00
My organisation constantly surveys existing customers' satisfaction.	3.16	1.24	1.55	(0.94)	4.00	(0.21)	1.00	5.00	4.00
My organisation 'fine-tunes' what it offers to keep its current customers satisfied.	3.40	1.11	1.22	(0.37)	4.00	(0.44)	1.00	5.00	4.00
My organisation penetrates more deeply into its existing customer base.	3.52	1.09	1.20	(0.47)	4.00	(0.41)	1.00	5.00	4.00
Overall	3.33	0.87	0.75	(0.51)		(0.18)	1.17	5.00	3.83

Table 4: Organisational Ambidexterity

Table 4 shows the responses to the Organisational Ambidexterity section of the questionnaire.

- Most respondents agreed with the following statement: ***My organisation continuously seeks to improve the reliability of its products and services.*** This statement also has the lowest standard deviation and the lowest kurtosis.
- The statement respondents least agreed with was: ***My organisation bases its success on its ability to explore new ideas or technologies.***

Table 5: Organisational Performance

Organisational Performance - Statements	Mean	Standard Deviation	Variance	Kurtosis	Mode	Skewness	Minimum	Maximum	Range
Over the past 3 years, my organisation's overall financial performance has been outstanding	3.20	1.26	1.58	(0.88)	3.00	(0.27)	1.00	5.00	4.00
Over the past 3 years, my organisation's overall financial performance has exceeded our competitors.	3.10	1.23	1.50	(0.89)	3.00	(0.02)	1.00	5.00	4.00
Over the past 3 years, my organisation's revenue growth has been outstanding.	3.22	1.22	1.49	(0.88)	3.00	(0.11)	1.00	5.00	4.00
Over the past 3 years, my organisation's revenue growth has exceeded our competitors	3.01	1.20	1.44	(0.79)	3.00	(0.02)	1.00	5.00	4.00
Over the past 3 years, my organisation's market share growth has been outstanding.	3.03	1.18	1.39	(0.73)	3.00	(0.07)	1.00	5.00	4.00
Over the past 3 years, my organisation has been more profitable than our competitors.	3.06	1.17	1.36	(0.66)	3.00	(0.15)	1.00	5.00	4.00

Table 5: Organisational Performance shows responses to the Organisation Performance section of the questionnaire. Most respondents agreed with the following statement: ***Over the past 3 years, my organisation's revenue growth has been outstanding***.

Table 6: EDI and OA

EDI and OA - Statements	Mean	Standard Deviation	Variance	Kurtosis	Mode	Skewness	Minimum	Maximum	Range
My organisation derives value from the tensions between EDI and OA.	2.94	1.04	1.09	(0.41)	3.00	0.00	1.00	5.00	4.00
The competition for resources between EDI and OA has improved my organisation's financial performance.	2.87	1.03	1.06	(0.29)	3.00	0.14	1.00	5.00	4.00
Within my organisation, EDI stands in the way of OA	2.62	1.11	1.24	(0.34)	3.00	0.38	1.00	5.00	4.00
OA has improved the financial performance of my organisation	2.97	1.12	1.25	(0.59)	3.00	0.09	1.00	5.00	4.00
EDI has improved the financial performance of my organisation	2.88	1.10	1.21	(0.43)	3.00	0.13	1.00	5.00	4.00

Table 6: EDI and OA shows responses to the EDI and OA confirmatory section of the questionnaire. On average, respondents disagreed with all statements. More respondents opted for the neutral option when answering than any other response for all the statements.

Table 7: Aggregate by Sections

Sections	Mean	Standard Deviation	Variance	Kurtosis	Mode	Skewness	Minimum	Maximum	Range
Employee Driven Innovation - Statements	3.04	0.63	0.39	(0.10)	3.00	(0.16)	1.27	4.45	3.18
Organisational Ambidexterity - Statements	3.33	0.87	0.75	(0.51)	4.00	(0.18)	1.17	5.00	3.83
Organisational Performance - Statements	3.10	1.10	1.20	(0.68)	3.00	(0.18)	1.00	5.00	4.00
EDI and OA - Statements	2.85	0.77	0.60	0.28	3.00	0.03	1.00	5.00	4.00

Table 7 shows the aggregate of all sections' responses. Table 7 shows that respondents agreed mostly with Organisational Ambidexterity statements, and least agreed with the employee-driven innovation and Organisational Performance statements.

5.5 Reliability and Validity

This section measured the reliability of responses provided by the respondents, and also validated the grouping of the statements. Due to the possibility of differing interpretations of statements by respondents, responses may sometimes be inconsistent and unreliable. This section allowed for the exclusion of statements, which could have cast doubts on the results of the research. This was done on the basis of EFA tests and using Cronbach's alpha.

Table 8: Rotated Component Matrix

Statement	Factor 1	Factor 2	Factor 3
OA 6	0.816		
OA 3	0.791		
OA 4	0.76		
OA 8	0.753		
OA 5	0.74		
OA 2	0.739		
OA 11	0.722		
OA 1	0.708		0.369
OA 7	0.676		
OA 9	0.618		
OA 12	0.601		
EDI 10	0.525		0.451
OA 10	0.463		
OP 2		0.909	
OP 6		0.908	
OP 4		0.886	
OP 3		0.883	
OP 5		0.855	
OP 1		0.843	
EDI 3	0.408		0.696
EDI 4	0.368		0.69
EDI 7			0.666
EDI 5			0.628
EDI 6			0.608
EDI 8			0.563
EDI 2			0.53
EDI 1			-0.35
EDI 9			0.338
EDI 11			0.319

Table 8 above shows the results of the 3-factor analysis that was run where all statements were grouped based on the pre-assigned groupings except for statement EDI 10, which was grouped with statements in the factor of Organisational Ambidexterity. Therefore, statement EDI 10 was removed from the study.

Table 9 shows that the 3 factors chosen in Table 8 explain 55.412% of the total variation.

Table 9: Cronbach's alpha of OA factor

Cronbach's Alpha	N of Items
0.92	12

Table 9 shows that the Cronbach's alpha for the OA factor is 0.92, which is classified as excellent (Grissom, Loeb, & Mitani, 2015; Pehlivan, 2013).

Table 10: Cronbach's Alpha Classifications

α Lower Bound (y ≤ α)	Upper Bound (α < x)	Classification
0.9	1.0	Excellent
0.8	0.9	Good
0.7	0.8	Acceptable
0.6	0.7	Questionable
0.5	0.6	Poor
0.0	0.5	Unacceptable

Cronbach's alpha measures internal consistency, which questions whether test measures what it was set out to measure. The interpretations below are used to determine the level of Cronbach's alpha (Grissom et al., 2015; Pehlivan, 2013):

Table 11: OA deleted items analysis

Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
OA 1	36.65	90.254	0.695	0.912
OA 2	36.9	90.656	0.693	0.912
OA 3	36.73	89.39	0.734	0.911
OA 4	36.77	88.928	0.736	0.91
OA 5	36.75	88.539	0.716	0.911
OA 6	36.45	88.752	0.801	0.908
OA 7	36.2	91.391	0.649	0.914
OA 8	36.17	91.525	0.742	0.911
OA 9	36.66	93.537	0.582	0.917
OA 10	36.74	95.958	0.422	0.924
OA 11	36.51	91.655	0.705	0.912
OA 12	36.38	94.273	0.58	0.917

Table 11 shows that no statement can be removed to significantly increase the Cronbach's alpha.

Table 12: Cronbach's alpha of the EDI factor

Cronbach's Alpha	N of Items
0.71	10

Table 12 shows that the Cronbach's alpha for employee-driven innovation is 0.71, which is classified as acceptable (Grissom et al., 2015; Pehlivan, 2013).

Table 13: EDI deleted items analysis

Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EDI 1	28.06	41.833	-0.345	0.802
EDI 2	27.12	31.523	0.365	0.688
EDI 3	27.53	27.058	0.681	0.626
EDI 4	27.83	27.451	0.697	0.626
EDI 5	26.56	33.605	0.321	0.696
EDI 6	26.83	33.361	0.299	0.698
EDI 7	27.74	27.867	0.578	0.646
EDI 8	28.19	28.729	0.584	0.648
EDI 9	28.62	31.407	0.395	0.683
EDI 11	27.86	33.021	0.29	0.7

Table 13 shows that if the statement EDI 1: ***Management views employees' new ideas as a threat or an attack on them*** is removed, the Cronbach's alpha will increase to 0.82, which is classified as good (Grissom et al., 2015; Pehlivan, 2013). So, statement EDI 1 was removed.

Table 14: The Cronbach's alpha for the OP factor

Cronbach's Alpha	N of Items
0.957	6

Table 14 shows that the Cronbach's alpha of Organisational Performance is 0.957 which is classified as excellent (Grissom et al., 2015; Pehlivan, 2013).

Table 15: OP deleted items analysis

Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
OP 1	15.42	30.328	0.817	0.954
OP 2	15.53	29.783	0.89	0.945
OP 3	15.41	29.998	0.876	0.947
OP 4	15.62	30.273	0.871	0.948
OP 5	15.59	30.804	0.841	0.951
OP 6	15.56	30.399	0.891	0.946

Table 15 shows that a removal of any statement will not improve the Cronbach's alpha, so no statement was removed.

Table 16: The Cronbach's alpha of the EDI_OA factor

Cronbach's Alpha	N of Items
0.76	5

Table 16 shows that the Cronbach's alpha of EDI and OA tension is 0.76, which is classified as acceptable (Grissom et al., 2015; Pehlivan, 2013).

Table 17: EDI and OA tension deleted items analysis

Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EDI_OA 1	11.34	9.535	0.669	0.666
EDI_OA 2	11.41	9.178	0.751	0.637
EDI_OA 3	11.65	13.117	0.071	0.864
EDI_OA 4	11.31	9.478	0.611	0.685
EDI_OA 5	11.39	9.362	0.647	0.672

Table 17 shows that if you remove statement EDI_OA 3, the Cronbach's alpha will increase from 0.76 to 0.864, which is significant. Therefore, statement EDI_OA 3 was removed.

5.6 The Hypothesis Testing

This section will answer the hypothesis using Pearson correlation and regression model.

Table 18: Pearson Correlation

Correlation Matrix					
		EDI	**OA**	**OP**	**EDI_OA**
Correlation	**EDI**	1			
	OA	0.522	1		
	OP	0.38	0.393	1	
	EDI_OA	0.589	0.598	0.593	1
Sig. (1-tailed)	**EDI**				
	OA	0			
	OP	0	0		
	EDI_OA	0	0	0	

Table 18 shows that all variables in the study have a positive r-value, as well as a p-value less than 0.05. Thus, all relationships across the four factors are significant and positive (Wegner, 2010).

Table 19: Regression model of OA and EDI

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
	B		Beta		
(Constant)	1.675	0.187		8.976	0
Organisational Ambidexterity	0.434	0.054	0.522	7.985	0
Dependent Variable: Employee Driven Innovation					

Table 19 shows that the p-value for Organisational Ambidexterity is less than 0.05, with a positive coefficient of 0.434. In addition, Table 18 shows that the r-value of the relationship is 0.522, which has a Pearson Correlation p-value of less than 0.05.

5.6.1 Hypothesis Test 1

An assessment of a relationship between Organisational Ambidexterity and Employee Driven Innovation:

- $H1_0$: There is no statistically significant relationship between Ambidexterity and Employee-Driven Innovation
- $H1_A$: There is a statistically significant relationship between Ambidexterity and Employee-Driven Innovation

Table 19 shows that the p-value for Organisational Ambidexterity is less than 0.05, with a positive coefficient of 0.434. In addition, Table 18 shows that the r-value of the relationship is 0.522, which has a Pearson Correlation p-value of less than 0.05. As a result, the $H1_0$

is rejected and a further conclusion that a statistically significant relationship between Organisational Ambidexterity and Employee-Driven Innovation exists at a 5% significant level can be made (Wegner, 2010).

Table 20: Regression model of EDI and OP

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
	B		Beta		
(Constant)	2.344	0.153		15.302	0
Organisational Performance	0.249	0.047	0.38	5.355	0
Dependent Variable: Employee Driven Innovation					

5.6.2 Hypothesis Test 2

An assessment of a relationship between employee-driven innovation and organisational performance:

- $H2_0$: There is no positive statistical relationship between employee-driven-Innovation and Organisational Performance
- $H2_A$: There is a positive statistical relationship between Employee-Driven-Innovation and Organisational Performance

Table 20 shows that the p-value for Organisational Performance is less than 0.05, with a positive coefficient of 0.249. In addition, Table 18 shows that the r-value is 0.38, with a Pearson Correlation p-value of less than 0.05. As a result, $H2_0$ is rejected and further conclude that there is a positive statistical relationship between employee-driven innovation and Organisational Performance (Wegner, 2010).

Table 21: Regression model of OA and OP

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
	B		Beta		
(Constant)	2.362	0.183		12.884	0
Organisational Performance	0.31	0.056	0.393	5.567	0
Dependent Variable: Organisational Ambidexterity					

5.6.3 Hypothesis Test 3

An assessment of a positive statistical relationship between Organisational Ambidexterity and Organisational Performance

- $H3_0$: There is no positive statistical relationship between Organisational Ambidexterity and Organisational Performance
- $H3_A$: There is a positive statistical relationship between Organisational Ambidexterity and Organisational Performance

Table 21 shows that the p-value of Organisational Performance is less than 0.05, with a positive coefficient of 0.31. In addition, Table 18 shows that the r-value of the relationship is 0.393, and the Pearson Correlation p-value is less than 0.05. As a result, the $H3_0$ is rejected and to further conclude that there is a positive statistical relationship between Organisational Ambidexterity and Organisational Performance.

Table 22: Regression model of OA, EDI and OA tension, OA, and OP

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
	B		Beta		
(Constant)	0.889	0.28		3.175	0.002
Organisational Ambidexterity	0.075	0.098	0.059	0.769	0.443
Tension Between Employee-driven innovation and Organisational Ambidexterity	0.675	0.093	0.558	7.239	0
Dependent Variable: Organisational Performance					

Table 21 shows a significant relationship between Organisational Ambidexterity and Organisational Performance. However, when the tension between Employee-driven innovation and Organisational Ambidexterity is added to the model on Table 22, Organisational Ambidexterity's relationship with Organisational Performance becomes insignificant, since the p-value is 0.443, which is greater than 0.05. As a result, the tension between employee-driven innovation and Organisational Ambidexterity is a mediator of the relationship between Organisational Ambidexterity and Organisational Performance.

Table 23: Regression model of EDI, EDI and OA tension, and OP

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
	B		Beta		
(Constant)	0.888	0.307		2.897	0.004
Tension Between EDI and OA	0.685	0.093	0.566	7.396	0
EDI	0.071	0.117	0.047	0.61	0.543
Dependent Variable: OP					

Table 20 shows a significant relationship between employee-driven innovation and Organisational Performance. However, when the variable, “Tension Between employee-driven innovation and Organisational Ambidexterity” is added to the model in Table 23, the relationship between employee-driven innovation and Organisational Performance becomes insignificant, since their p-value is 0.543, which is greater than 0.05. As a result, the tension between employee-driven innovation and Organisational Ambidexterity is a mediator of the relationship between employee-driven innovation and Organisational Performance.

5.7 Conclusion

The total number of respondents, who completed the questionnaire were 198. However, only 172 questionnaires were eligible for use, which is a reliable statistical number for performing statistically significant tests. The response to the questionnaire by respondents is consistent and statistically reliable after removing statements EDI 1, EDI 10 and EDI_OA 3. This is because the Cronbach’s Alphas for all sections were shown to be either good or excellent. Generally, this engenders confidence on the results of the study.

From the respondents, there was a fair representation between Male and Female of 51% and 49%, respectively. The majority (60%) of respondents have a post graduate degree, and 52% of them occupy middle management positions. This demographic information is

important to understand the relevance and applicability of the results to various groups.

The following statements were mostly agreed to by respondents:

- Employee-driven innovation Section: When something does not function well at work, I try to find new solutions.
- Organisational Ambidexterity Section: My organisation continuously seeks to improve the reliability of its products and services.
- Organisational Performance Section: Over the past 3 years, my organisation's revenue growth has been outstanding.
- EDI and OA Section: OA has improved the financial performance of my organisation.

The results from the hypothesis testing process for both the Pearson correlation test and Regression model concluded that there exists a relationship between the following constructs:

- Organisational Ambidexterity and Employee-Driven Innovation
- Employee Driven-Innovation and Organisational Performance
- Organisational Ambidexterity and Organisational Performance

The regression model also discovered that the variable stated: ***Tension between Employee-driven innovation and Organisational Ambidexterity*** is a moderator of both the relationship between ***Organisational Ambidexterity and Organisational Performance*** and the one between ***Employee Driven-Innovation and Organisational Performance***.

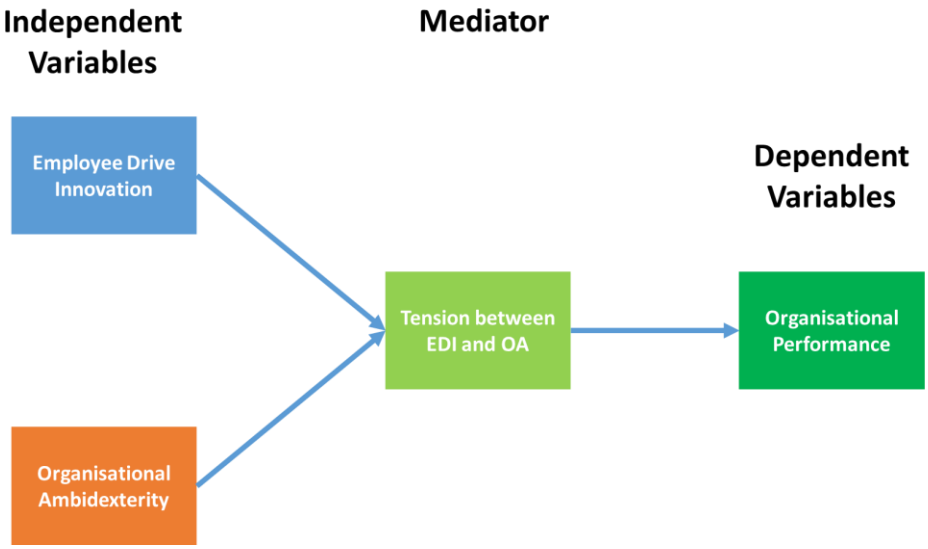


Figure 7: Final relationship model

Chapter 6 presents a detailed discussion of the results. This discussion will take into account the literature reviewed in chapter two, as well as all preceding chapters to this one.

Chapter 6: Discussion of Results

6.1 Introduction

This chapter discusses the results reported in chapter five in detail, whilst juxtaposing them with the theory and literature outlined in chapter two. The purpose of this research was outlined in chapter one as being about establishing, particularly in the South African context, whether tensions between organisational ambidexterity and employee-driven innovation exist, and the forms in which these tensions manifest. These relationships were studied based on the paradox theory. These then formed a triangular research model as depicted in Figure 2. In order to establish these tensions, the following binary relationships were formulated:

- The tension between organisational ambidexterity and employee driven innovation.
- The tension between organisational ambidexterity and organisational performance.
- The tension between employee-driven innovation and organisational performance.

6.2 Overview of Dataset

In total, 513 surveys were sent out, with 198 respondents completing the survey, and only 172 (87%) of the completed questionnaires were usable. Schönbrodt and Perugini (2013) recommended a 10:1 ratio for each variable measured. The three constructs had 15 measurable variables between them: EDI (10), OA (2) and OP (3), which means that the 172 responses (across each of the variables) were sufficient to allow for generalisability of results with a final ration of 11:1. The demographic variables were not used for analysis in this study, as they were not particularly relevant to answer the questions of interest.

There was a relatively even gender split between the 172 respondents, with male (51.2%) and female (48.8%) respondents to the survey. The majority (90.7%) of the respondents

had some form of post matric education, with a particular skew towards postgraduates who accounted for 59.9% of the respondents. The Tidd and Bessant model of innovation (Ferreira, Fernandes, Alves, & Raposo, 2015) includes learning as part of the drivers of innovation. This implies that the more educated a person is, the likelier they are to participate in innovation initiatives (Høyrup, 2010; Kim, 2016). A total of 52.9% of the respondents classified themselves as professionals or middle management, 23.3% were senior managers or executives, the balance were either in supervisory (6.4%) or administrative (17.4%) roles.

6.3 Overview of Constructs

The analysis uncovered, through a regression model, that the relationship (or tension) between the two independent variables, organisational ambidexterity and employee driven innovation, is a mediator between the two other tensions of interest, namely, i) organisational ambidexterity versus organisational performance, and ii) employee-driven innovation versus organisational performance. A visual illustration of this relationship is provided in Figure 7.

6.4 Employee Driven Innovation

The first independent variable assessed was Employee Driven Innovation. EFA confirmed that all factors, except EDI 10, pre-assigned to this construct were indeed a fit. The use of EFA enabled the researcher to study both the pattern and form of the data that had been collected (Bandalos & Finney, 2010; Thompson, 1997). Upon completion, all 11 variables remained under the same factor of employee driven innovation.

The Cronbach's Alpha as indicated in section 5.5 was 0.71 indicating an acceptable internal consistency or reliability, as this value is in the range greater than or equal to 0.7 and less than 0.8 (Grissom et al., 2015; Pehlivan, 2013). Thus, the 10 variables measure the same construct. Table 14 shows that by deleting variable EDI 1, the overall Cronbach Alpha would improve to 0.82, which is classified as a good fit (Devellis, 2012; Santos, 1999).

The statement most agreed with by respondents was: **when something does not function well at work, I try to find new solutions**. This statement is aligned with the idea generation measurement variable of EDI. This item is also congruent with several definitions of EDI for which idea generation is a key component (Kesting et al., 2016; Zhu et al., 2015).

The statement: **my manager always financially rewards good ideas (e.g. through increases and good bonuses)** received minimal affirmation from respondents, with a mode of 1. Deci (1971) argued that intrinsic motivation would have more impact on EDI than incentives, a view further recently corroborated by Kesting and colleagues (2016).

Table 24: EDI statements with the lowest means

Statement	Average Mean
Management views employees' new ideas as a threat or an attack on them.	2.65
The way of remuneration in our organisation motivates employees to suggest new things and procedures.	2.51
My manager always financially rewards good ideas (e.g. through increases and good bonuses).	2.09

The mean score for EDI was 3.04. Whilst slightly on the upper side of the mid-point of the five-point Likert scale, this pointed to a relative indifference about involvement in or contribution towards innovation initiatives. If fact, upon closer inspection, the statements with the lowest average means pointed to a dissatisfaction around management support, particularly of the financial kind as shown in Table 24. The first statement's average mean indicates employees' feeling of an opportunity for their new ideas within their organisations. These statements are aligned to arguments advanced by Wihlman and colleagues (2015) around why leadership support is an important driver in employee innovation participation. The authors further pointed out that clear leadership and management support, in the form of reinforcing messages, financial support for the

initiatives and putting appropriate processes in place, will augur well for EDI.

6.5 Organisational Ambidexterity

The second independent variable assessed was Organisational Ambidexterity. EFA confirmed that all the factors pre-assigned to this construct were indeed a fit. The use of EFA enabled the studying of both the pattern and form of the data that had been collected (Bandalos & Finney, 2010; Thompson, 1997). Upon completion, all 12 variables remained under the same organisational ambidexterity factor.

The Cronbach's Alpha as indicated in section 5.5 was 0.92. This indicates an excellent internal consistency reliability, as it is greater than 0.9 (Grissom et al., 2015; Pehlivan, 2013). The variables do indeed measure the same construct. There were no variables, as shown in Table 10, whose deletion would have improved the Cronbach's Alpha. All variables had a Cronbach's Alpha greater than 0.9. Thus, the measurement scale was found to be reliable for the OA construct (Santos, 1999).

The statement most agreed with by respondents was: **my organisation continuously seeks to improve the reliability of its products and services.** This is consistent with the rationale for the existence of ambidexterity, which is about ensuring that a balance is struck between the organisation's current operations and the ability to compete beyond the present (Adler et al., 1999; Agostini et al., 2016; Alpkan & Gemici, 2016; Smith & Lewis, 2011; Tushman & O'Reilly, 2012).

On the other hand, the least supported statement was: **my organisation bases its success on its ability to explore new ideas or technologies.** Panagopoulos (2016) advanced technology management as one of the indicators of the extent to which an organisation is able to dexterously achieve a balance between exploration and exploitation.

6.6 Organisational Performance

The third variable assessed, which is a dependent variable, was Organisational Performance. EFA confirmed that all the factors pre-assigned to this construct were indeed a fit. The use of EFA enabled the researcher to study both the pattern and form of the data that had been collected (Bandalos & Finney, 2010; Thompson, 1997). Upon completion, all six variables remained under the same organisational performance factor.

The Cronbach's Alpha as indicated in section 5.5 was 0.957. This indicates an excellent internal consistency reliability, as it is greater than 0.9 (Grissom et al., 2015; Pehlivan, 2013). The variables do indeed measure the same construct. There were no variables, as shown in Table 16, whose deletion would have improved the Cronbach's Alpha. All variables had a Cronbach's Alpha greater than 0.9. Thus, the measurement scale was found to be reliable for the OA construct (Santos, 1999).

6.7 Organisational Ambidexterity and Employee Driven Innovation

This section was included to confirm the feedback in the sections specific to the three constructs, particularly the respective relationships. The Cronbach's Alpha as indicated in section 5.5 was 0.76. This indicates an acceptable internal consistency reliability, as it is in the range greater than or equal 0.7 and less than 0.8 (Grissom et al., 2015; Pehlivan, 2013). The five variables do indeed measure the same construct. Table 17 shows that by deleting variable EDI_OA 3, the overall Cronbach Alpha would improve to 0.864, which is classified as a good fit (Devellis, 2012; Santos, 1999).

6.8 Hypotheses

6.8.1 Hypothesis 1

This hypothesis assessed the relationship between Organisational Ambidexterity and Employee Driven Innovation. The null hypothesis was: "There is no statistically significant relationship between Ambidexterity and Employee-Driven Innovation ($H1_0$)" and the alternative hypothesis was "There is a statistically significant relationship between Ambidexterity and Employee-Driven Innovation ($H1_A$)."

Table 19 shows that the p-value for Organisational Ambidexterity is less than 0.05, with a coefficient of 0.434. Table 18 also shows that the r-value of the relationship is 0.522, which has a Pearson Correlation p-value of less than 0.05 (Wegner, 2010). Wegner (2010) states that for a p-value to be significant, it has to be less than 0.05. This means that $H1_0$ can be rejected and conclude that, at a 5% significant level, there is a statistically significant relationship between Organisational Ambidexterity and Employee-Driven Innovation.

This statistical confirmation supports the literature outlined in chapter two on the relationship between OA and EDI. The tensions between the two constructs are confirmed in both directions (Smith & Lewis, 2011). An ambidextrous organisation has managed to find a balance between the day to day activities it needs to undertake to continue running successfully, whilst simultaneously searching for new opportunities for survival (Alpkan & Gemici, 2016; Raisch et al., 2009; Tushman & O'Reilly, 2011). In other words, whilst exploiting profitable or effective activities, the organisation would also be involved with identifying activities that can later be exploited (Smith & Lewis, 2011). Thus, the testing of this hypothesis confirms that ambidexterity is a branch of innovation, particularly the exploration aspect of it.

6.8.2 Hypothesis 2

This hypothesis assessed the relationship between employee-driven innovation and Organisational Performance. The null hypothesis was "There is no positive statistical relationship between Employee-Driven-Innovation and Organisational Performance ($H2_0$)" whilst the alternative hypothesis was "There is a positive statistical relationship between Employee-Driven-Innovation and Organisational Performance ($H2_A$)."

Table 20 shows that the p-value for Organisational performance is less than 0.05, with a positive coefficient of 0.249. Table 18 also shows that the r value is 0.38, with a Pearson Correlation p-value of less than 0.05 (Wegner, 2010). This means that $H2_0$ can be rejected and confirms a positive statistical relationship between employee-driven innovation and Organisational Performance.

The rapidly changing environment within which organisations operate requires that they look for different ways of maintaining and improving performance (Rodriguez & Rodriguez, 2015). The results of this particular hypothesis test proves that involving employees in innovation increases organisational performance. By getting involved in EDI, employees will be able to contribute to ideas that resonate with customer validated products (Laviolette & Redien-collot, 2016; Panurach & Moosa, 2013), as a source of competitive advantage (Zheng et al., 2009).

6.8.3 Hypothesis 3

Hypothesis three interrogated whether a positive statistical relationship exists between Organisational Ambidexterity and Organisational Performance. The null hypothesis was: "There is no positive statistical relationship between Organisational Ambidexterity and Organisational Performance ($H3_0$)" and the alternative hypothesis was: "There is a positive statistical relationship between Organisational Ambidexterity and Organisational Performance ($H3_A$)."

Table 21 shows that the p-value of Organisational Performance is less than 0.05, with a positive coefficient of 0.31. Table 18 also shows that the r-value of the relationship is 0.393, with a Pearson Correlation p-value of less than 0.05 (Wegner, 2010). This means that $H3_0$ can be rejected, and confirms a positive statistical relationship between Organisational Ambidexterity and Organisational Performance.

OA focuses on establishing a balance between exploitation and exploration (Akdoğan et al., 2016; Raisch et al., 2009; Sinha, 2016). The essence of OA, particularly in the context of organisations that may experience external pressures from stakeholders, is the objective of performing optimally in the present and simultaneously setting up structures to secure future competitiveness or performance. The statistically significant result of the hypothesis test between OA and OP is in line with the literature that ambidextrous organisations are highly competitive (Carayannis & Rakhmatullin, 2014; Tushman, 2011).

6.9 Conclusion

In the final analysis, it follows from the discussion of the results in the context of the literature that all three null hypotheses rejected the existence of positive relationships between the three constructs Figure 2 showed the statistical relationship established of the tensions between the three constructs. Using a regression model, the relationship "a" in Figure 8 which is the "tension between employee-driven innovation and Organisational Ambidexterity" is a moderator of both the relationship between Organisational Ambidexterity and Organisational Performance (b1), as well as the one between Employee Driven-Innovation and Organisational Performance (b2).

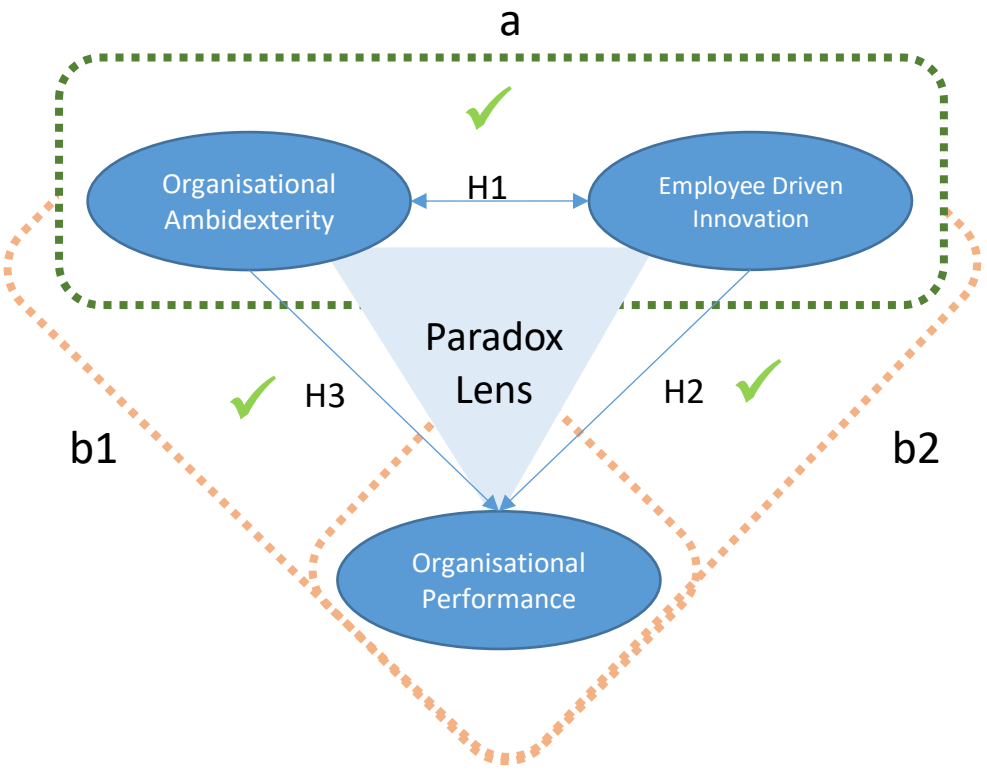


Figure 8: Conceptual model - established relationships between constructs

The next chapter outlines principal findings, implications for management and other relevant stakeholders, research limitations, as well as suggestions for future research.

Chapter 7: Conclusion

7.1 Introduction

This chapter provides a summary of the most significant findings from Chapter 6, as informed by preceding chapters, namely, chapters 1 to 5. This chapter also outlines the limitations of the research, whilst providing some insights around implications for management and other interested stakeholders around. The focus is on how organisations can extract value from the tensions faced by their organisations, with regard to EDI, OA and OP. Finally, the chapter outlines recommendations on areas for future research.

This study set out to investigate the tensions in the relationship between the three constructs: i) organisational ambidexterity, ii) employee driven innovation, and iii) organisational performance. This was conducted using the paradox theory, with the tensions investigated between two constructs at any given time.

7.2 Principal Findings

7.2.1 Hypothesis 1

A statistically significant relationship exists between organisational ambidexterity and employee driven innovation. When this hypothesis was tested, it was concluded, with a 5% confidence level that there is a statistically significant relationship between EDI and OA. The hypothesis was set up to test the dual relationship between the two constructs, hence the setting up of the questionnaire and statistical analysis tools was bidirectional in nature.

It follows then, particularly with the pace at which the world is changing (Rodriguez & Rodriguez, 2015), that organisations with high levels of EDI in a highly uncertain

environment (Association of Academic Business Schools, 2015; Kesting et al., 2016; Kesting & Ulhøi, 2010; Wihlman et al., 2015) are likely to be more ambidextrous (Akdoğan et al., 2016; Panagopoulos, 2016; Sinha, 2016; Tushman & O'Reilly, 2011) and as such more competitive (Kumar & Pansari, 2016; M. E. Porter, 2012). This significant statistical relationship also showed in the converse relationship between EDI and OA that organisations that are ambidextrous are better placed to afford their employees opportunities to be involved in innovation initiatives. This is particularly the case, as the exploration (Knight & Harvey, 2015; Lewis, 2015; Nitsenko et al., 2017) part of OA pertains to innovating for the future sustainability of the organisation.

7.2.2 Hypothesis 2

There is a positive statistical relationship between employee-driven innovation and Organisational Performance. Upon testing this hypothesis, it was concluded, with a 5% confidence level that there is a statistically significant relationship between employee-driven innovation and organisational performance.

What this result shows is that organisations that have put in place structures and processes that encourage employees to be involved in innovation initiatives are likely to be more competitive (Kesting et al., 2016; Kesting & Ulhøi, 2010; Ketels, 2006; Panurach & Moosa, 2013; Tirabeni et al., 2016). This is development is something that is tantamount to positively affect overall performance within the organisation. As outlined in chapter 2, performance was reviewed from both financial and non-financial vantage points (Awadallah & Allam, 2015; Ilhan & Zeynep, 2012).

7.2.3 Hypothesis 3

There is a positive statistical relationship between Organisational Ambidexterity and Organisational Performance. Following the testing of the hypothesis, it was concluded, with a 5% confidence level that there is a statistically significant relationship between organisational ambidexterity and organisational performance.

When organisations are able to find a balance between exploration and exploitation within

them (He & Wong, 2004; Knight & Harvey, 2015; Lewis, 2015; Raisch et al., 2009), they are better positioned to take advantage of current opportunities, whilst ensuring that the position of the organisation is secured for the future. This is more apt as indeed exploration is about understanding where the market or society is going, and how the organisation positions itself, with a view to remain relevant under those changing circumstances (Raisch et al., 2009; Wihlman et al., 2015). On the other hand, exploitation is about value creation in the present (Raisch et al., 2009; Wihlman et al., 2015). What this positive statistical relationship proves is that those organisations that are able to establish and manage this balance realise improved financial and non-financial performance (Akdoğan et al., 2016; He & Wong, 2004; Sinha, 2016; Vrontis et al., 2017).

7.3 Implications for management and other relevant stakeholders

7.3.1 Employee Driven Innovation

The drivers of EDI include support from management, an environment that is conducive for idea generation, a clearly defined decision structure around innovations, incentives geared towards reinforcing behaviour desirable for innovation, as well as a corporate culture and structure that supports and is receptive to innovation within the work place (Kesting & Ulhøi, 2010).

Organisations should move towards innovation programmes that seek to involve all employees (Høyrup, 2010; Huijskes, 2019; Wihlman et al., 2015, 2015), rather than insulating the function, and allowing only a select few access and contribute to its initiatives. As has become clear from the results of this study, EDI is positively correlated to OA. Managers should be encouraged to put processes in place that remove or reduce the friction between employees' daily responsibilities and involvement innovation initiatives.

7.3.2 Organisational Ambidexterity

The four identified drivers of organisational ambidexterity are i) technology management,

ii) resource management, iii) organisational learning, and iv) organisational behaviour (Panagopoulos, 2016).

Managers need to be deliberate about how they allocate technology resources (Panagopoulos, 2016), as these drive the extent to which an organisation is able to create a balance between exploitation and exploration (Tushman & O'Reilly, 2011; Vrontis et al., 2017). In addition, this means that managers have to be aware of technologies they deploy within their organisations to ensure that these assist the organisation achieve its primary objectives, as aligned with the organisation's strategy (Ketels, 2006; Kwayu et al., 2018).

The second indicator is resource management, which is about the allocation of resources between exploration and exploitation in the organisation (Panagopoulos, 2016). These resources could be either financial or non-financial. It takes a visionary management team to commit resources to initiatives that may often only yield results long after the management team had left the organisation (Agostini et al., 2016; Sinha, 2016). These are decisions managers should be encouraged and incentivised to take, with a view to ensure the future sustainability of the organisation.

Thirdly, organisational learning is about the culture of the organisation, its beliefs and attitude towards failure (Panagopoulos, 2016). The learning element is particularly important for exploration as the organisation needs to learn (and develop) new ways of doing things (Chiva et al., 2007; He & Wong, 2004). This may often mean a shift into nascent industries due to improved capabilities and or higher returns on investment. Thus, managers need to be constantly improving themselves and their teams, in an effort to ultimately transform their organisations.

Finally, organisational behaviour is the moderating factor on the ambidexterity continuum, with exploration and exploitation at its extreme ends (Panagopoulos, 2016). An organisation's behaviour determines its focus and ability to alternate focus between either extreme ends (He & Wong, 2004; Knight & Harvey, 2015). Therefore, managers have a responsibility to clearly and unambiguously direct the organisation's focus. This will also ensure that the organisation develops the strength to maintain the necessary balance between exploitation and exploration.

7.4 Organisational Performance

The performance of an organisation, depending on the organisation's approach may be measured from both a financial or non-financial perspective. The balanced scorecard measures several aspects, including the financial perspective, customer perspective, innovation and learning perspective, as well as the internal business perspective (Awadallah & Allam, 2015; Ilhan & Zeynep, 2012; Kaplan & Norton, 1992).

Based on the results from this study, managers can contribute towards improving the overall performance of the organisation by efficiently managing the tensions between EDI and OA. As outlined in the recommendations in the OA and EDI sections above, tensions exist between the two constructs (Smith & Lewis, 2011). The Figure 7 shows that organisational performance is a mediating construct for the tensions between EDI and OA. This means that the organisation can exploit the tensions between EDI and OA in order to realise high performance levels within the organisation.

7.5 Limitations of the research

Section 4.8 outlined the limitations that were identified prior to the analysis of the data. This section explores these aspects further. Most of these limitations relate to the generalisability of the results as follows:

- Certain parts of the population could not be represented due to the level of access and time constraints. Nowhere else in this study is this clearer than having over 90% of participants with post matric education, and 60% of them with postgraduate qualifications. Thus, the results are likely to be more applicable to knowledgeable workers that are often more educated (Høyrup, 2010; Kim, 2016).
- The mood of respondents, at the time of completing the questionnaire, could have affected the results, since this is a cross-sectional study measuring perceptions at a given point in time.
- Due to the limited nature of the study, the research focused on organisations operating predominantly in Johannesburg and Pretoria, at least, from the initial list

sent out. As such, responses may be skewed towards the Johannesburg and Pretoria contexts for which a legitimate argument of non-representation of all South African organisations can be made.

- Replicability of results may be a challenge due to the representation of organisations engaged, and the overall number of participants who responded. Individuals who participated were employed predominantly in the financial services sector in Johannesburg and Pretoria.
- The study was a cross-sectional, which means that it considered respondents' views at a given point in time, a feature that does not guarantee if similar responses would have been collected if the study had been conducted at a different time or on either side of an intervention designed to bring changes.
- The study was quantitative with the use of a structured questionnaire. Thus, it limited the responses by participants to a five point Likert scale. This likely stifled any additional sentiments they may have held about the constructs and the questions asked.

7.6 Suggestions for future research

The results from this study together with the literature review on employee driven innovation, organisational ambidexterity and organisational performance give rise to the following recommendations for future research:

- This study was quantitative; a study on the same constructs with a qualitative approach or mixed methods may assist in developing and testing theory for South African organisations.
- Respondents to this study were predominantly employed in Gauteng Province. A country-wide study would improve the generalisability of the results.
- This study relied on the relationship between EDI and OA from a paradoxical viewpoint. Other approaches could assist in developing the theory in this space.
- This research covered the tensions between the constructs focusing particularly at the organisational level, future research could delve deeper into individual and group levels.
- The tensions between the constructs were not differentiated between industries.

Another worthwhile area of research could be the various ways with which the tensions manifest within and across different industries.

7.7 Conclusion

The firm relationship between employee-driven innovation and organisational ambidexterity bodes well for forward thinking organisations that do not only want to be successful, but would want to take their employees along on the journey whilst building robust organisations that withstand intense current competition and shaping the future. This is evidenced by the positive statistical relationship as proven in through hypothesis one in 6.8.1.

This research has shown that these paradoxes are effective in driving organisational performance. This research has shed some light on these tensions within organisations, thereby making broader contribution to the academic literature and strategic management around the relationship of the three constructs.

According to former President Mbeki's metaphor, without stairs, (Pressly, 2003); other emerging markets economies have been growing in contrast to South Africa's double storied economy. South Africa's Minister of Finance, Mr Tito Mboweni, in his mid-term budget speech on 30th October 2019, pointed out how in 25 years the average person in China had increased their wealth by a factor seven, three and a half in India, and only one and a third in South Africa. This is an indication that the South African economy has fallen behind comparable economies. In order to catch up, innovation and the ability to compete in this VUCA environment have to take priority (National-Treasury, 2019).

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Appendix A – Time-Line

Activity	Responsible	Output	Due Date
Submit 1st Draft Proposal to Supervisor for review	MM	Proposal 1st Draft	17/05/2019
Meeting to discuss feedback on Proposal	MM to schedule	Feedback	21/05/2019
Finalise Proposal	MM	Final Proposal	26/05/2019
Submit Proposal on Aspire	MM	Proposal Submission	27/05/2019
Meeting to discuss feedback on marked proposal	MM to schedule NS to avail himself	Agreement on way forward	15/06/2019
Submit Draft Ethical Clearance	MM to submit NS to review	Ethical Clearance reviewed by supervisor	18/07/2019
Sign Ethical Clearance	NS	Ethical clearance approved by supervisor	30/07/2019
Complete Ethical Clearance process	MM	Clearance completed and approved	27/08/2019
Complete Data collection	MM	Data collection completed	31/08/2019
Meeting with supervisor	MM to schedule NS to avail himself	Data processed, and draft Chapters 5 & 6 submitted to supervisor	14/09/2019
Complete Data analysis	MM	Data analysis completed	20/09/2019
Global Module	MM		21/09/2019 –

			03/10/2019
Complete write up and editing of Report	MM	Final conceptual and technical editing of Report completed	31/10/2019
Submission final Report	MM	Report submitted to GIBS	11/11/2019

Table 25: Research Timeline

Student: Mogale Moganedi (MM)

Supervisor: Dr Ngwako Sefoko (NS)

Appendix B – Consistency Matrix

PROPOSITIONS/ QUESTIONS/ HYPOTHESES	LITERATURE REVIEW	DATA COLLECTION TOOL	ANALYSIS
There is a statistically significant relationship between Ambidexterity and Employee-Driven Innovation	• (Kesting, Song, Qin, & Krol, 2016) • (Tushman & O'Reilly, 1996) • (Panagopoulos, 2016) • (Kesting & Ulhiøi, 2010)	Section C, Questionnaire	Descriptive data analysis though MS Excel and IBM SPSS software.
There is a positive statistical relationship between Employee-Driven-Innovation and Organisational Performance	• (Kesting, Song, Qin, & Krol, 2016) • (Tushman & O'Reilly, 1996) • (Panagopoulos, 2016) • (Kesting & Ulhiøi, 2010)	Section D, Questionnaire	Descriptive data analysis though MS Excel and IBM SPSS software.
There is a positive statistical relationship between Organisational Ambidexterity and Organisational Performance	• (Kesting, Song, Qin, & Krol, 2016) • (Tushman & O'Reilly, 1996) • (Panagopoulos, 2016) • (Kesting & Ulhiøi, 2010)	Section E, Questionnaire	Descriptive data analysis though MS Excel and IBM SPSS software.
The Tensions	• (Kesting, Song, Qin, &	Section F,	Descriptive data

	Krol, 2016) • (Tushman & O'Reilly, 1996) • (Panagopoulos, 2016) • (Kesting & Ulhiøi, 2010)	Questionnaire	analysis though MS Excel and IBM SPSS software.

Table 26: Consistency Matrix

Appendix C – Questionnaire

These questionnaire will be on the basis of a five point Likert Scale (where 5 is Strongly Agree and 1 is Strongly Disagree) (Joshi et al., 2015).

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
5	4	3	2	1

Table 27: Likert Scale

7.7.1 SECTION A: Preamble to questionnaire

Dear Respondent

I am currently a student, completing my research in partial fulfilment of an MBA, at the Gordon Institute of Business Science, a subsidiary of the University of Pretoria.

The research I am conducting focuses on Employee-driven innovation and Organisational Ambidexterity and how they influence Organisational Performance. I would appreciate your participation in this online survey.

Please take note of the following:

• The survey should take no longer than 20 minutes of your time.

• Your participation is voluntary, and all your responses will be anonymous and confidential.

• You may also withdraw at any time from this survey without penalty.
• Only aggregated data will be reported.

By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact my supervisor or myself using the details are provided below.

Thank you.

Researcher Name: Mogale Moganedi
Email: 15391656@mygibs.co.za

Supervisor: Dr Ngwako Sefoko
nsefoko@gmail.com

7.7.2 SECTION B: Employee Demographics

B.1. Please indicate your consent to participate in this research
- B.1.1. Yes, I do consent.
- B.1.2. No, I do not consent.

B.2. Please select your gender:
- B.2.1. Male
- B.2.2. Female
- B.2.3. Other

B.3. Highest Qualification
- B.3.1. Less than matric
- B.3.2. Matric or equivalent
- B.3.3. National Diploma
- B.3.4. Undergraduate Degree
- B.3.5. Post Graduate Degree

B.4. Where would classify your role within your organisation?
- B.4.1. Administrative / Support
- B.4.2. Supervisory
- B.4.3. Middle Management / Professional
- B.4.4. Senior / Executive Management

7.7.3 SECTION C: Employee Driven Innovation

C.1. Management Support

- C.1.1. Management views employees' new ideas as a threat or an attack on them.
- C.1.2. My manager supports me in implementing new/good ideas as soon as possible.

C.2. Creation of an environment for idea creation

- C.2.1. My organisation provides employees with platforms for inspiration and idea generation.
- C.2.2. My organisation provides employees time and resources to put ideas and innovations into practice.
- C.2.3. When something does not function well at work, I try to find new solutions.
- C.2.4. When I have a new idea, I try to persuade my colleagues of it.

C.3. Decision structure

- C.3.1. My organisation has a clearly defined and transparent process for new ideas to progress through to implementation.

C.4. Incentives

- C.4.1. The way of remuneration in our organisation motivates employees to suggest new things and procedures.
- C.4.2. My manager always financially rewards good ideas.

C.5. Corporate culture and climate

- C.5.1. The social environment within my organisation encourages creative behaviour.
- C.5.2. My organisation tolerates mistakes and errors during the implementation of something new.

7.7.4 SECTION D: Organisational Ambidexterity

D.1. Exploration

- D.1.1. My organisation looks for novel ideas by thinking "outside the box."
- D.1.2. My organisation bases its success on its ability to explore new ideas or technologies.

D.1.3. My organisation creates products or services that are innovative to the firm.

D.1.4. My organisation aggressively ventures into new market segments.

D.1.5. My organisation actively targets new customer groups.

D.1.6. My organisation looks for creative ways to satisfy its customers' needs.

D.2. Exploitation

D.2.1. My organisation is committed to improving quality and lowering costs.

D.2.2. My organisation continuously seeks to improve the reliability of its products and services.

D.2.3. My organisation increases the levels of automation in its operations.

D.2.4. My organisation constantly surveys existing customers' satisfaction.

D.2.5. My organisation 'fine-tunes' what it offers to keep its current customers satisfied.

D.2.6. My organisation penetrates more deeply into its existing customer base.

7.7.5 SECTION E: Organisational Performance

E.1. Over the past 3 years, my organisation's overall financial performance has been outstanding.

E.2. Over the past 3 years, my organisation's overall financial performance has exceeded our competitors.

E.3. Over the past 3 years, my organisation's revenue growth has been outstanding.

E.4. Over the past 3 years, my organisation's revenue growth has exceeded our competitors.

E.5. Over the past 3 years, my organisation's market share growth has been outstanding.

E.6. Over the past 3 years, my organisation has been more profitable than our competitors.

7.7.6 SECTION F: EDI and OA

F.1. Organisation derives value from the tensions between employee initiated innovation and organisational learning.

F.2. The competition for resources between employee initiated innovation and organisational learning has improved my organisation's financial performance.

F.3. Employee initiated Innovation has to compete for resources with the day to day running of the organisation.

F.4. Employee initiated innovation stands in the way of efforts to transform my organisation for the future.

F.5. Organisational learning has improved the financial performance of my organisation

F.6. Employee initiated innovation has improved the financial performance of my organisation.

Appendix D: Ethical Clearance

01 August 2019

Mogale Moganedi

Dear Mogale

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

Please note that approval is granted based on the methodology and research instruments provided in the application. If there is any deviation change or addition to the research method or tools, a supplementary application for approval must be obtained

We wish you everything of the best for the rest of the project.

Kind Regards

GIBS MBA Research Ethical Clearance Committee

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