

Technical experts as managers and servant leaders

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ABSTRACT

The main aim of this study was to explore how a servant leadership style can assist technical expert managers to become more effective leaders. Secondary objectives of the research included exploring the leadership challenges that technical expert managers experience, the factors that make it harder or easier for a technical expert to be a servant leader and investigating to what extent servant leadership can be relevant. A qualitative design was followed. The sample comprised eight subordinates to technical expert managers and eight technical expert managers, and data were collected through semi-structured interviews.

Leadership challenges identified for technical expert managers included challenges in the interpersonal domain and limited time capacity. The findings of leadership challenges related to the interpersonal domain included difficulty relating to subordinates, egocentric thinking and limited influence higher up in the hierarchy. There was also evidence of the paradox of power that may inhibit advice-taking by technical expert managers. Servant leadership may encourage delegation to empower subordinates and assist in mitigating the leadership challenges identified for technical expert managers in the interpersonal domain because servant leaders tend to operate from a stronger relationship domain.

Some factors may make it easier for technical experts as managers to assume a servant leadership style. Firstly, emerging technical experts look for a technical expert as a leader for guidance and mentorship. The legacy motive for many technical experts aligns with servant leadership in that it goes beyond just making a difference on a technical level to impacting people. Also, the example

of servant leaders creates more servant leaders. Organisational culture and where an organisation is in its growth cycle may or may not support a servant leadership style. Finally, interpersonal and leadership skills improve with experience.

The research concluded that an appropriate balance between transformational and servant leadership might be best for a technical expert. If organisations can improve leadership efficiency, the organisation won't just be an enjoyable place to work but can also gain a competitive advantage. Leadership awareness and development can start earlier in the technical expert's education and career with an appropriate balance between theoretical and practice-based learning. Governing bodies of professions can make leadership a module alongside ethics in their professionalism courses. Technical experts as managers can further be supported by appropriate leadership training, mentorship, coaching, and having a proper allocation of their key performance objectives between technical work and people management.

KEYWORDS

Leadership challenges, effective leadership, servant leadership, technical expert, transformational leadership

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1. INTRODUCTION

Many organisations promote technical experts with little or no prior leadership experience in managerial positions without providing them with relevant leadership development experiences (Panagiotopoulos, 2010). This lack of leadership development and experience may cause leadership challenges for technical experts as managers. Effective leadership is important because there is a positive relationship between effective leadership and organisational performance (Abbas & Daniel, 2019).

An expert is someone widely recognised as a reliable source of knowledge, technique, or skill whose judgement is accorded authority and status by the public or their peers (Panagiotopoulos, 2010). Leadership by a technical expert may be preferable in situations demanding elevated levels of technical knowledge and expertise. However, although experts may be strong in the technical domain, they often struggle in the relationship domain. The basis of the relationship domain includes capabilities like collaboration, stakeholder management and knowledge sharing (Gordon, 2020). Technical experts have often not developed these capabilities well because their training tends to focus on cognitive abilities and technical skills rather than interpersonal or leadership skills (Taylor & Benbow, 2016). Therefore, although technical experts' strong technical knowledge may support them as leaders, their underdevelopment in the relationship domain may present a leadership challenge.

‘The tyranny of competence’ presents another leadership challenge and refers to when an individual leads from their technical expertise rather than from what is required at the time (Quinn, 1996, pp. 115–120). In the absence of collaboration, the rising demands for this individual can often turn their focus to getting the job done, and when helping subordinates, they may then offer a quick answer or a complete solution. If technical experts as managers continuously offer this type of dependency-orientated help and do not share their knowledge, their subordinates may remain dependent on them because they do not learn the skills needed to solve problems themselves in future (Alvarez & Van Leeuwen, 2011). The converse of not sharing knowledge easily is that a technical expert may also not easily accept advice from others. A technical expert has expert power, often leading to competitiveness and overconfidence that may inhibit advice-taking (Tost et al., 2012). Not taking advice and not considering alternative views are referred to as the paradox of power, and this lack of balanced information processing creates another leadership challenge for the technical expert that can hamper improved decision-making (Rego et al., 2018).

Developing a coaching style of leadership like servant- or transformational leadership may assist with the leadership challenges that a technical expert may experience as a manager. Studies have shown that servant- and transformational leadership result in many positive outcomes (Smith et al., 2004; Stone et al., 2004). Greenleaf conceptualised servant leadership, which involves leaders being humble and authentic and serving the needs of their subordinates as their top priority (Greenleaf, 1998). Servant leaders provide stretching assignments and empower their subordinates with self-responsibility (Van Dierendonck, 2011). On the other hand, transformational leaders build commitment to organisational objectives by inspiring subordinates towards a shared vision and empowering them to achieve it (Smith et al., 2004). A big differentiation between transformational leadership and servant leadership is that transformational leaders focus on organisational objectives while servant leaders focus on the growth of their subordinates (Stone et al., 2004).

The focus on subordinates by servant leadership potentially offers multiple benefits to technical experts as managers to address the specific leadership challenges considered. First, leader humility positively impacts subordinate performance (Mao et al., 2019). Secondly, organisational trust, citizenship behaviour, collaboration and tacit knowledge sharing are likely to increase when servant leadership is adopted (Chatbury et al., 2011; Karatepe et al., 2019; Parris & Peachy, 2013; Whisnant & Khasawneh, 2014). In turn, organisational trust supports employees’ morale and is likely to promote organisational commitment and performance (Katou, 2015). Furthermore, an empowerment culture can help organisations maintain a sustainable competitive advantage (Ghosh, 2013). Finally, by developing leadership skills through self-actualisation and transcending to a cause greater than themselves by focusing on their subordinates, technical experts may find more meaning in their careers (Frankl, 2008, pp. 114–115).

As far as could be established, research has not explicitly addressed the application of servant leadership by technical experts as managers to address the leadership challenges

they may experience. These leadership challenges may be effectively resolved or mitigated by the technical expert adopting a servant leadership style. Servant leadership may be efficient in supporting the technical expert as manager to be a more effective leader. This research investigates how servant leadership can be relevant to technical experts as managers and how adopting a servant leadership approach can support technical experts to become more effective leaders by resolving the leadership challenges they may experience. It further investigates which factors make it easier or harder for technical experts to be servant leaders to establish how technical experts can be assisted to become servant leaders. Servant leadership may efficiently support technical experts to be more effective leaders to the benefit of the organisation, subordinates, and the technical expert him or herself.

2. LITERATURE REVIEW

2.1 Leadership challenges of technical experts

An expert is defined as someone widely recognised as a reliable source of knowledge, technique, or skill whose judgement is accorded authority and status by the public or their peers (Ackerman et al., 2003; Panagiotopoulos, 2010). In some cases, expert leadership may be preferable because they have a deep understanding of their particular field of expertise and set a high technical quality standard (Goodall, 2010). For example, the lack of expert knowledge at the top of organisations may have contributed to the economic turmoil in 2008 because some CEOs lacked the knowledge necessary to fully understand the core business of their organisations (Goodall, 2010). Therefore, a technical expert can be an asset to the business as a leader.

Many organisations promote technical experts in managerial positions based on past technical performance or often due to organisational necessities, without providing them with relevant leadership development experiences (Panagiotopoulos, 2010). This lack of leadership development may lead to the Peter Principle, which refers to a promoted person lacking the skills required for the new role, leading to incompetency at the new level, which may hinder further promotion (Peter & Hull, 1969, pp. 166–167). Hence, technical experts may experience leadership challenges as managers. However, the promotion of technical expertise should not mean the demotion of management proficiency. Promoting technical experts as managers must be preceded by leadership development experience or project management training (Panagiotopoulos, 2010). A technical expert manages technical matters as a primary responsibility and managerial issues as a secondary responsibility, which may result in leadership challenges. In being promoted to manager, the priority must be reversed (Panagiotopoulos, 2010).

2.1.1 TECHNICAL EXPERTS IN THE INTERPERSONAL DOMAIN

Although experts tend to be strong in the technical domain, they often struggle in the relational domain (Gordon, 2020). Technical experts have often not developed interpersonal or leadership skills well, with their training focusing on cognitive abilities

and technical skills (Taylor & Benbow, 2016). In contradiction, the relationship domain requires capabilities such as collaboration, the ability to influence without authority, coaching others, stakeholder management and knowledge sharing (Gordon, 2020). These interpersonal skills can also be referred to as ‘the practical intelligence of professionals’ or ‘soft skills’ (Joseph et al., 2010). The term ‘soft skills’ may be misleading and diminish the importance and complexity of these skills because they are often much harder to learn than many technical skills, also known as so-called ‘hard skills’ (Johnston & McGregor, 2005). Nevertheless, there is much evidence that technical competence and interpersonal skills are needed for effective leadership and professional practice (Joseph et al., 2010). Developing interpersonal skills to support technical skills can improve personal productivity, collaboration, and synergy (Bancino & Zevalkink, 2007). Consequently, developing interpersonal skills can strengthen technical experts’ capabilities in the relationship domain.

Technical disciplines have been notoriously poor at developing future leaders for corporate leadership positions despite technical professions increasingly requiring a broader skillset (Bancino & Zevalkink, 2007). Technical professions require a broader skillset in today’s fast-paced marketplace to improve the bottom line and due to increasing competition in a globalised economy. Therefore, it will benefit technical professions if interpersonal training elements are integrated directly into technical training programmes. Interpersonal skills training differs from technical skills learning and comes from exposure to real-world examples and situations, cooperative work, and teamwork (Taylor & Benbow, 2016).

2.1.2 THE TYRANNY OF COMPETENCE

Many people build their identity around their knowledge and competence in employing certain known techniques or abilities (Quinn, 1996, p. 3). ‘The tyranny of competence’ occurs when an individual manages from their technical experience rather than with interdependent action that may be required at the time (Quinn, 1996, pp. 115–120). The rising demands for this individual in the absence of collaboration can turn their focus to getting the job done, and when helping subordinates, they may offer a quick answer or a complete solution (Alvarez & Van Leeuwen, 2011; Quinn, 1996, pp. 115–120). If technical experts as managers continuously offer this type of dependency-orientated help and do not share their knowledge, their subordinates may remain dependent on them because they do not learn the skills to solve problems themselves in future (Alvarez & Van Leeuwen, 2011). Helping subordinates by offering a quick answer or complete solution or being a ‘rescuer’ is a leader’s most common accidental diminisher tendency (Wiseman, 2017, p. 195).

Subordinates may come to expect dependency-orientated help from technical experts, but it may negatively impact the respect for experts as leaders in the long run, which poses a leadership challenge (Alvarez & Van Leeuwen, 2011; Magee & Galinsky, 2008). Furthermore, in the long run, if subordinates are not empowered to solve problems themselves, they may experience frustration and depleted confidence (Wiseman, 2017,

p. 195). In contrast, investing in subordinates' success, sharing knowledge, and empowering subordinates may lead to subordinates gaining more self-competence and self-confidence, feeling more respected and, finally, employee satisfaction (Alvarez & Van Leeuwen, 2011; Wiseman, 2017, p. 195).

2.1.3 KNOWLEDGE SHARING

In today's economy, it is increasingly the case that most work is knowledge work and therefore, it is important to overcome the barriers to transferring expertise within organisations (Hinds & Pfeffler, 2003, p. 24). Human nature can pose a barrier to information or knowledge sharing: for example, people may not share their ideas, fearing ridicule, or may withhold information to have power over others (Babcock, 2004). Experts face a conflict of interest or a social dilemma in knowledge sharing: from a group or society perspective, experts should share their knowledge; however, individually, they are better off not to because acquiring knowledge is costly, and they would give up their competitive advantage (Moser, 2017). There is a conflict of interest between the collective and the individual expert's perspectives, and this conflict creates a challenge in knowledge management projects within organisations (Moser, 2017).

Considering the expert's motivation for knowledge sharing may assist in achieving better knowledge sharing for their subordinates and the organisation's benefit. Experts' motivation for knowledge sharing relates to the indirect reciprocity theory (Moser, 2017). Experts may be more likely to cooperate in knowledge sharing if they receive indirect returns from status benefits and reputational gains for their contributions to the collective good (Moser, 2017; Rockenbach & Milinski, 2006). The indirect reciprocity theory then refers to when implicit 'punishment' costs are induced, for instance, when experts give up the opportunity to increase status and reputation by not cooperating in knowledge sharing (Rockenbach & Milinski, 2006).

Reducing an expert's power status may lead to the expert disengaging from knowledge sharing (Issac et al., 2022). Systematic measures in the organisation, such as rotation policies and a reduction in hierarchical relationships, may lessen uncontrolled changes in power statuses within an organisation and therefore support knowledge sharing (Issac et al., 2022). A reduction in hierarchical relationships will reduce the power distance between experts and their subordinates and support better knowledge sharing. A culture of knowledge sharing and collective thinking in an organisation supports an organisation's competitive advantage and performance (Collinson & Wilson, 2006; Gutierrez et al., 2015).

2.1.4 THE PARADOX OF POWER

A technical expert has expert power that may often lead to competitiveness and overconfidence, inhibiting advice-taking (Tost et al., 2012). Incorporating and seeking employee voice is essential to organisational performance. Yet, some managers display an aversion to suggestions from subordinates to compensate for a threatened ego and a

perception that they will be seen as having less ability or competence associated with their managerial roles (Fast et al., 2014). The paradox of power refers to situations where greater decision rights are often coupled with power-induced neglect of the judgement of others or when advice from others is undervalued, and opinions are overvalued (Bonaccio & Dalal, 2006; Tost et al., 2012). Yet, acquiring information from broader perspectives and differing opinions is arguably the easiest way to improve decision-making (Larrick, 2009). Humble leaders have a more comprehensive and richer array of information and knowledge at their disposal to make better-informed decisions and improve effective team performance (Fast et al., 2014; Tangney, 2009).

Balanced information processing refers to the degree to which a leader objectively considers data and alternative views before making informed and improved decisions (Rego et al., 2018). The paradox of power and a lack of balanced information processing may mean that some technical experts underutilise the intelligence around them and make solo decisions. On the other hand, leaders who encourage an exchange of views create the safety for best thinking and then engage people to achieve sound decisions and develop collective intelligence (Wiseman, 2017, pp. 129–156).

2.2 Effective leadership

Effective leadership is growing in importance because no one person can deal with the rapid pace of change and complexity of the environment in which many organisations operate (Nahavandi, 2015). The leadership challenges that technical experts may experience as managers can hinder their effective leadership. Leadership effectiveness is related to interpersonal behaviours that can positively influence change, group performance and follower satisfaction (Yukl, 2012). Effective leaders can motivate, inspire, empower and influence subordinates and positively influence organisational performance (Abbas & Daniel, 2019; Cote, 2017). Leaders are effective when their subordinates achieve their specified goals; they achieve smooth internal processes like group cohesion and follower satisfaction and enable external adaptability (Nahavandi, 2015, p. 5). A successful manager may not necessarily be an effective leader. Sometimes, successful managers get promoted quickly but do not necessarily have satisfied and productive employees (Luthans, 1988). Effective leadership must not only be measured by an individual's personal career success but also by the influence a leader has on subordinates.

2.3 Servant leadership

A coaching style of leadership may assist with the leadership challenges that a technical expert may experience as a manager. Organisations with leaders who embrace a coaching style of leadership will continue to be successful in the emerging global economy because these organisations generate a steady pipeline of capable leaders (Kumar & Provodnikova, 2005). Both transformational and servant leadership involve a coaching style of leadership. At first glance, transformational and servant leadership appear to be somewhat similar.

Transformational leaders and servant leaders are visionaries, generate high levels of trust, serve as role models, show consideration for others, delegate responsibilities, empower subordinates, teach, communicate, listen, and influence subordinates (Stone et al., 2004). Transformational and servant leadership differ significantly from transactional leadership, which is based on bureaucratic authority, focuses on task completion, and relies on rewards and punishments (Klijn et al., 2022). However, an in-depth study of the literature indicates that transformational and servant leadership can be distinguished from each other. Transformational leadership centres on organisational objectives and is a process of building commitment to the objectives in which a leader inspires subordinates towards a shared vision and then empowers them to achieve it (Smith et al., 2004). Greenleaf has conceptualised servant leadership as:

The [s]ervant-[l]eader is servant first ... It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead ... The best test, and difficult to administer is this: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, and more likely themselves to become servants? (Greenleaf, 1998, p. 123)

The essence of servant leadership comes through clearly in Greenleaf's explanation. The focus of servant leaders is not on themselves but on their subordinates, and servant leaders' motivation is to serve their subordinates and see them grow. In servant leadership, the motivation for leadership moves to a higher plane of motivation to serve the needs of others (Luthans & Avalio, 2003). The servant leader is inclined to serve first, and the transformational leader is to lead first (Parolini, 2007, p. 64). A servant leader is 'primus inter pares' (first among equals) and does not use their power to get things done but rather uses persuasion (Frick, 2004, p. 121). The servant leader influences subordinates through non-manipulative processes like service and encouraging stewardship rather than directing (Stone et al., 2004). Finally, servant leadership is a values-based approach to leadership that favours leadership as a relationship (Reinke, 2004).

Organisational concerns tend to be more peripheral for the servant leader (Patterson, 2003). Servant leaders trust subordinates to do what is necessary for the organisation, which, in turn, facilitates achieving organisational objectives as a secondary outcome (Stone et al., 2004). Servant leadership can support organisations in developing social responsibility strategies without sacrificing their financial goals (Kincaid, 2012). On the other hand, transformational leaders may focus more on achieving organisational goals in the short term, with less focus on the long-term benefits of the growth of subordinates or social responsibility strategies (Bharwaney, 2020, p. 6).

Scepticism about servant leadership may stem, in part, from a misunderstanding that equates service with weakness (Johnson, 2001, p. 137). Servant leadership does not imply

an attitude of servility or that leaders would have low self-esteem but instead emphasises that it is the responsibility of the leader to increase the autonomy and responsibility of subordinates to encourage them to think for themselves (Bowie, 2000). Servant leaders empower subordinates with self-responsibility and provide stretching assignments, leading to career satisfaction and success (Wang et al., 2019). A leader must create a safe space within an intense environment that requires people's best thinking and work, with rapid learning cycles (Wiseman, 2017, pp. 65–96). There is a difference between a tense environment that suppresses people's thinking and capability and an intense climate. The latter accesses significantly more brainpower from subordinates (Wiseman, 2017, pp. 65–96). The outcome of servant leadership is that subordinates grow as persons; they become healthier, wiser, freer, and more autonomous (Greenleaf, 1998, p. 123).

A servant leader is characterised by the quality of goodness or moral excellence (Patterson, 2003). They build relationships on trust and interpersonal acceptance. Interpersonal acceptance is the ability to understand where people are coming from and to cognitively adopt the psychological perspectives of other people (Van Dierendonck, 2011). For servant leaders, it is important to create an atmosphere of trust where people feel accepted and are free to make mistakes, knowing they will not be rejected (Ferch, 2003, p.10). Servant leaders provide direction to subordinates and empower and develop them (Van Dierendonck, 2011). The servant leader recognises, acknowledges, and believes in each individual's abilities and intrinsic value (Greenleaf, 1998, p. 7). Servant leaders look beyond their own intelligence and focus on extracting and extending the intelligence of others. In her book, *Multipliers*, Wiseman (2017, pp 1–32) coined the 'multiplier effect', which refers to leaders who apply their intelligence to amplify the intelligence and capability of people around them.

Servant leaders are humble and authentic, and their motives include stewardship (Van Dierendonck, 2011). The stewardship philosophy's basis includes trust and a long-term outlook and is about the collective serving of higher-order needs, beyond self-interest, within a low power distance context (Saltman & Ferroussier-Davis, 2000). Humility is the ability to keep one's accomplishments in perspective (Wadhwa & Mahant, 2022). There is a positive association between humble leadership and effective team performance (Tangney, 2009). Authenticity can be described as behaving so that professional roles remain secondary to who the individual is as a person (Halpin & Croft, 1966).

Some scholars contend that a servant leadership model is more suited for a stable environment; therefore, the organisational growth cycle may influence servant leadership's effectiveness (Smith et al., 2004). The limited resource of time means that if experts spend time sharing their knowledge with subordinates, it may potentially lead to a decrease in the expert's level of performance, which may not be ideal for start-ups or growing organisations (Hinds & Pfeffler, 2003). In more mature organisations, concern for employees and their personal growth becomes more important to achieve effective leadership and employee satisfaction (Smith et al., 2004).

2.4 The benefits of servant leadership

2.4.1 BENEFITS TO THE ORGANISATION

Several studies indicated a strong correlation between trust and servant leadership (Dannhauser & Boshoff, 2006; Joseph & Winston, 2005; Reinke, 2003). Organisational trust leads to many positive outcomes, including organisational commitment, citizenship behaviour and collaboration (Chatbury et al., 2011; Dannhauser & Boshoff, 2006; Karatepe et al., 2019; Katou, 2015; Parris & Peachy, 2013). Organisational trust supports employee morale and, ultimately, organisational performance (Katou, 2015). Servant leadership promotes organisational performance through improved decision-making following a balanced process of information gathering and dynamic leadership (Stone et al., 2004; Van Dierendonck, 2011). Balanced information processing and dynamic leadership enable the leader to react to different situations and allow external adaptability and agility for the organisation (Nahavandi, 2015).

Through the multiplier effect (Wiseman, 2017, pp. 1–32), servant leadership can help technical experts to extract the optimal potential and performance from a group while maintaining employee satisfaction. The multiplier effect is useful and relevant to address the problem of new demands and insufficient resources that organisations face today, particularly because of ‘the great resignation’ following the Covid-19 pandemic (Allen, 2015, p. 4; Sheather & Slattery, 2021). Servant leaders empower their subordinates. Creating an empowerment culture can help organisations maintain a sustainable competitive advantage (Ghosh, 2013). Leaders can provide the right degree of accountability when there are high-quality interpersonal relations between the leader and subordinates (Ferris et al., 2009). A leader must define opportunities that challenge people to go beyond what they know how to do, generate the belief that it is possible and connect the specific steps needed to create movement. Otherwise, a leader may limit the organisation to what only they know how to do (Wiseman, 2017, pp. 97–128). Servant leadership can bring about deep change in organisations. Servant leaders strive to serve their subordinates, who serve the customer. As a result, employees are more likely to adopt a servant leadership approach themselves, which can lead to a decrease in customer churn and an increase in long-term profitability and success (Greenleaf, 1998, p. 123).

2.4.2 BENEFITS TO SUBORDINATES

The focus of servant leadership is on the servant leader’s subordinates, leading to many benefits for the subordinates. Servant leadership leads to a commitment to subordinates’ growth, development, and empowerment (Greenleaf, 1998, p.7; Reinke, 2004). Servant leaders are authentic and show humility by acknowledging that they do not have all the answers (Reinke, 2004). Leader humility positively impacts subordinate performance (Mao et al., 2019). Servant leaders’ interpersonal accepting attitude creates a safe psychological climate where subordinates feel respected, safe, and trusted to use their knowledge and to focus on continuous development and learning (Van Dierendonck, 2011). As a result,

subordinates are likely to become wiser, freer, and more autonomous, which helps them discover the right solutions themselves (Greenleaf, 1998, p. 123, Van Dierendonck, 2011).

There is an indirect influence of servant leadership on subordinates through ethics and organisational justice. The leader’s concern with ethics, particularly fostering stewardship, positively influences the organisation’s culture to benefit employees (Reinke, 2004). In addition to employee empowerment, servant leadership is related to job satisfaction through organisational justice. Organisational justice leads to overall psychological need satisfaction and improves psychological well-being for subordinates (Mayer et al., 2008; Van Dierendonck, 2011).

2.4.3 BENEFITS TO THE TECHNICAL EXPERT AS MANAGER

As far as could be established, research has not explicitly addressed the application of servant leadership by technical experts as managers to address the leadership challenges they may experience. The leadership challenges that the technical expert may experience as a manager include challenges in the interpersonal domain, the tyranny of competence, lack of knowledge sharing and the paradox of power. These leadership challenges may be effectively resolved or mitigated by the technical expert adopting a servant leadership style. Servant leadership may be efficient in supporting the technical expert as manager to be a more effective leader. Table 1 demonstrates the potential leadership challenges of the technical expert as a manager in combination with the characteristics of servant leadership that may assist in resolving or mitigating the specific leadership challenge.

TABLE 1 How servant leadership can support technical experts to be effective leaders

Leadership challenge that the technical expert may experience	Servant leadership characteristics and the abilities of a servant leader that can potentially mitigate the leadership challenge
<p>Technical experts in the relationship or interpersonal domain</p>	<p>Servant leaders move beyond self-interest and focus on their subordinates (Patterson, 2003; Stone et al., 2004). The servant leader’s moral inclination is to serve first (Luthans & Avalio, 2003; Parolini, 2007). Servant leaders tend to operate from a stronger relationship domain because they generate high levels of trust, show concern for others, and communicate and listen well (Stone et al., 2004). A servant leader views leadership as a relationship (Reinke, 2004). Servant leaders’ interpersonal accepting attitude creates a safe psychological climate where subordinates feel trusted (Reinke, 2004; Van Dierendonck, 2011). A stronger relationship domain tends to result in improved coaching, collaboration, and stakeholder management abilities to influence subordinates without using authority (Gordon, 2020).</p>
<p>The tyranny of competence</p>	<p>Servant leaders provide and delegate stretch assignments (Wang et al., 2019). Servant leaders provide direction, coach and teach subordinates but encourage autonomy and for subordinates to think for themselves (Alvarez & Van Leeuwen, 2011; Bowie, 2000; Parolini, 2007; Van Dierendonck, 2011; Wiseman, 2017, p. 195).</p>

<p>Knowledge sharing</p>	<p>The best leaders make everyone smarter through the ‘multiplier effect’ (Wiseman, 2017, pp. 1–32). Experts may be more likely to cooperate in knowledge sharing if they receive indirect returns from status benefits and reputational gains for their contributions to the collective good (Rockenbach & Milinski, 2006). However, key dimensions of the servant leader’s moral conscience are stewardship and sacrificial service (Van Dierendonck, 2011). Therefore, servant leaders may be more inclined to share knowledge for the collective good without the expectation to receive direct or indirect returns and so assist in overcoming the barrier of knowledge sharing in organisations. Furthermore, servant leadership and stewardship operate within a low power distance context, which also encourages more knowledge sharing (Saltman & Ferroussier-Davis, 2000).</p>
<p>The paradox of power</p>	<p>Humility and authenticity are core characteristics of servant leadership (Van Dierendonck, 2011). Through balanced information processing and being open to taking advice, humble leaders have a broader and richer array of information and knowledge at their disposal to make better-informed decisions and improve effective team performance (Fast et al., 2014; Tangney, 2009). Collaborating, utilising collective thinking and being open to employee voices further support improved decision-making (Fast et al., 2014; Wiseman, 2017, pp. 129–156).</p>

Overcoming leadership challenges and receiving positive assessments of leader performance and effectiveness can benefit the technical expert as manager by influencing their reputation as a leader through their effects on social and human capital (Hall et al., 2004). Technical experts as managers can mitigate the Peter Principle and open the door for further promotions by overcoming the leadership challenges they may experience and developing their leadership and interpersonal skills (Peter & Hull, 1969, pp. 166–167). Transcending to a cause greater than themselves by focusing on their subordinates may lead to technical experts finding more meaning in their careers (Frankl, 2008, pp. 114–115).

2.5 Factors that can make it easier or harder for technical experts as managers to be servant leaders

Some factors can make it easier or harder for technical experts to be servant leaders. Some of the factors evident in the literature are explored in the next sections.

2.5.1 FACTORS THAT CAN MAKE IT EASIER FOR TECHNICAL EXPERTS AS MANAGERS TO BE SERVANT LEADERS

2.5.1.1 *Credibility, Authority, and Status*

A leader must understand the situation and environment they lead. A leader who is authoritative, professional and responsible is likely to be more successful than someone who does not have these characteristics (Nasor, 2019). Experts have a deep understanding of their area of expertise, and their status and credibility can enhance the respect for them and their power and influence as leaders (Goodall, 2010). Credibility is important for

leaders to meaningfully engage with their subordinates because the leader's credibility offers a foundation of trust for the relationship between the leader and subordinates, which in turn supports an enabling and collaborative environment (Muli, 2022).

2.5.1.2 *Legacy motive*

The expert may now be ready to transcend to a cause greater than their technical success, having achieved authority and status as an expert. The expert may desire to leave a legacy by supporting the development of future generations of experts. The legacy motive is a mechanism for channelling self-interest towards the pursuit of the long-term interests of the collective (Fox et al., 2015). Leaving a legacy means that an individual has established an impact that will persist into the future and have a positive effect on future others, leaving the world a little better off for their presence in it (Fox et al., 2015). Servant leadership strongly focuses on developing subordinates; therefore, servant leadership may support the expert to achieve their legacy motive.

2.5.1.3 *Ethical codes*

Ethical codes of practice often apply to technical managers as professionals, protecting against conflicts of interest that might arise between a professional's and the organisation's demands. Servant leadership has an ethical grounding. Servant leadership can provide the ethical grounding and leadership framework needed to help address the challenges and ethical dilemmas of the twenty-first century that include economic globalisation, increased communications, rising terrorism, war and violence, environmental degradation, the threat of global warming and the intensifying gap between the poor and rich worldwide (Parris & Peachy, 2013). As professionals and managers, technical experts may find it easier to associate with servant leadership. However, in the broader management field, enforcing a code of conduct with rigorous rules of professionalisation requires the management field to be ring-fenced and systematised, which is difficult and complex.

2.5.2 *FACTORS THAT CAN MAKE IT HARDER FOR TECHNICAL EXPERTS AS MANAGERS TO BE SERVANT LEADERS*

2.5.2.1 *Interpersonal leadership skills*

Cognitive ease is lazy thinking and the mental stage that requires minimal effort for an individual with no significant active functioning of the brain's cognitive function (Kahneman, 2011, pp. 59–70). A person gravitates towards simpler situations rather than complex ones because of cognitive ease. Applying interpersonal leadership skills may require more cognitive effort for technical experts due to the probable lack of development or experience in this area (Taylor & Benbow, 2016). Consequently, technical experts may prefer to operate from or gravitate towards their technical domain.

The technical expert may require deep change to operate more comfortably in the relational domain. The process of deep change requires new ways of thinking and behaving

that distort existing thinking patterns (Quinn, 1996, p. 3). Deep change involves taking risks and surrendering control of the present self (Quinn, 1996, p. 45). It is difficult because individuals become structured and stagnant (Kahneman, 2011, pp. 59–70). The journey of change is like ‘travelling naked into the land of uncertainty’ that requires one to forget what you know and discover what you need (Quinn, 1996, pp. 3–14).

2.5.2.2 *Power distance*

Individual-level power distance is defined as the extent to which subordinates expect and accept top-down direction from their leaders (Kirkman et al., 2009). High power distance makes subordinates more likely to follow and accept the hierarchy. In low power distance, individuals aim to distribute power equally. Expert power may create a higher power distance. A higher power distance may make it harder to be a servant leader. A culture with a low power distance is expected to be more encouraging toward developing servant leadership because the relationship between leader and follower is based on a more equal footing (Sousa et al., 2022). A reciprocal relationship with a strong focus on personal growth and less on self-protection is more likely to develop within a low power distance context. The servant leader relies on unconventional approaches to influence others, like the service itself, instead of using power and control (Parolini, 2007).

Experts, as high achievers, are likely to be motivated by opportunities to demonstrate their knowledge, master challenges and gain recognition (Moser, 2017). The desire to achieve is a major source of strength in business. However, an ethos of increasing personalised power and celebrating individual achievement can harm other motivations, such as the drive to empower people, which are important for effective leadership (Spreier et al., 2017). People high in socialised power get satisfaction from helping others feel stronger and more capable (Spreier et al., 2017). IBM successfully changed their culture from personal heroics and individual achievement to valuing socialised power, with managers paying attention to the greater needs of the company (Spreier et al., 2017). After IBM’s metamorphosis, the use of a coaching style of leadership increased by 17%. Therefore, an environment that values socialised power will be more conducive to servant leadership.

2.5.2.3 *Perceived humility*

Humility is a characteristic of servant leadership (Patterson, 2003; Van Dierendonck, 2011). The etymological origin of humility is based on the Latin word ‘humilis’ (on the ground), derived from the word ‘humus’ (earth). It follows that humility is a virtue that grounds and stabilises one’s self-perception (Park & Peterson, 2003). The more power the leader possesses, the more subordinates value their humility, and it can increase their motivation to follow (Sousa & Van Dierendonck, 2017). However, experts with high expert power may not always be perceived as humble because of the lack of considering alternative views or inhibited advice-taking (Rego et al., 2018). Lower perceived humility can make servant leadership harder and decrease subordinates’ motivation to follow.

2.5.2.4 *'You do not know what you do not know' problem*

Experts do not generally ask for leadership development assistance because they tend to be intelligent, successful and may be proud, or they don't want to be managers (Gordon, 2020). However, technical experts as managers could benefit from the help and support of human resource development professionals. Human resource development professionals are called to address the 'you do not know what you do not know' problem by offering experiential learning opportunities that develop interpersonal skills and are internalised through a self-reflective process (Gordon, 2020; Cseh et al., 2013; Taylor & Benbow, 2016).

3. PROBLEM STATEMENT AND OBJECTIVES OF THE RESEARCH

3.1 Problem statement

Experts' leadership in managerial positions may be preferable in some cases because they have a deep understanding of their field of expertise and set a high technical quality standard (Goodall, 2010). However, many organisations promote technical experts with little or no leadership experience in managerial positions without providing them with relevant leadership development experiences (Panagiotopoulos, 2010). This shortage of leadership development and experience may cause interpersonal leadership challenges for technical experts as managers and hinder effective leadership. Leadership challenges may include an underdeveloped interpersonal domain (Gordon, 2020; Joseph et al., 2010; Taylor & Benbow, 2016); the tyranny of competence (Alvarez & Van Leeuwen, 2011; Magee & Galinsky, 2008; Quinn, 1996, pp. 115–120); knowledge sharing (Moser, 2017); and the paradox of power (Bonaccio & Dalal, 2006; Tost et al., 2012).

A consideration of the leadership challenges in combination with the characteristics of servant leadership indicates that a technical expert's leadership challenges as a manager may be effectively resolved or mitigated by the technical expert adopting a servant leadership style (Table 1). As far as could be established, research has not explicitly explored the application of servant leadership by technical experts as managers as a possible way to address the leadership challenges they may experience. However, servant leadership by technical experts as managers may be efficient in supporting experts to become more effective leaders to the benefit of the organisation (Ghosh, 2013; Greenleaf, 1998, p.123; Katou, 2015; Stone et al., 2004; Van Dierendonck, 2011; Wiseman, 2017, pp. 1–32); subordinates (Greenleaf, 1998, p.7; Reinke, 2004; Van Dierendonck, 2011); and the technical expert him or herself (Frankl, 2008, pp. 114–115; Hall et al., 2004).

Some factors may make it easier or harder for technical experts to be servant leaders. Some of the factors evident in the literature that can make it easier for technical experts to be servant leaders include:

- their credibility, authority, and status (Goodall, 2010);
- a legacy motive (Fox et al., 2015); and
- their familiarity with ethical codes (Parris & Peachy, 2013).

Factors that can make it harder for technical experts to be servant leaders include:

- a higher cognitive effort to apply interpersonal leadership skills (Kahneman, 2011, pp. 59–70; Taylor & Benbow, 2016);
- their reliance on personalised power and a higher power distance to subordinates (Sousa et al., 2022; Spreier et al., 2017);
- being perceived as less humble (Rego et al., 2018); and
- experts do not generally ask for leadership development assistance (Gordon, 2020).

The focus of this research is to explore possible leadership challenges of technical experts as managers and how servant leadership can assist experts in improving their leadership effectiveness for the benefit of the organisation, subordinates, and the technical expert him or herself.

3.2 Research objectives

The main aim of this study is to explore how a servant leadership style can assist technical experts in becoming more effective leaders in their respective management positions. In the endeavour to achieve the main research objective, the following secondary research objectives were stated:

- Explore the leadership challenges that technical experts who are managers experience.
- Explore the factors that make it harder or easier for a technical expert to be a servant leader.
- Investigate to what extent servant leadership can be relevant to technical experts who are managers to improve leadership efficiency.

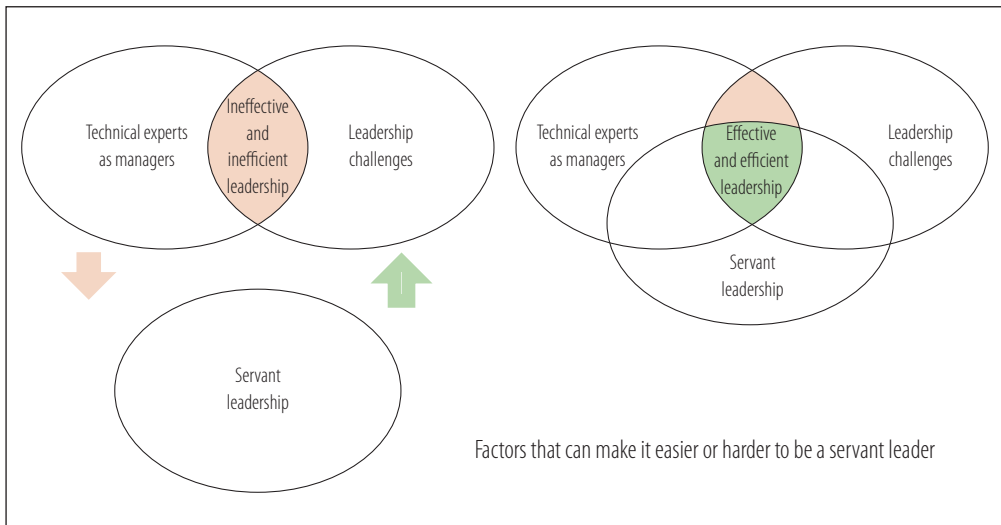


FIGURE 1 Visual illustration of the research focus and the secondary research objectives

4. RESEARCH METHOD

4.1 Research design and the measuring instrument

The study used primary qualitative data gathered through semi-structured interviews to achieve the research objectives. A semi-structured interview is pre-planned and systematic, and this structure helps meet the research objectives (Olsen, 2012, pp. 33–38). Although semi-structured interviews are time-consuming and labour-intensive, the interviews offer a valuable opportunity to access independent thoughts through open-ended follow-up questions in a confidential and psychologically safe space with a knowledgeable interviewer (Adams, 2010).

The semi-structured interviews were conducted in two phases. The first phase was conducted with subordinates of technical experts who are managers, and the second phase was with technical experts as managers. The subordinates in the first phase were independent and did not report to any of the managers interviewed in the second phase. The two phases assisted the researcher in exploring the research objectives from the perspectives of subordinates reporting to technical experts as managers and from technical experts as managers themselves. Interview guides were prepared separately for the technical experts as managers (phase two) and subordinates (phase one).

4.1.1 PHASE 1: SEMI-STRUCTURED INTERVIEWS WITH SUBORDINATES OF TECHNICAL EXPERTS AS MANAGERS

Interviews with subordinates were included to obtain a balanced perspective and to mitigate the effect of overconfidence and social desirability biases that may occur in the interviews of the managers. Overconfidence and social desirability biases are common when one's image is at stake (Grossman & Owens, 2012). Therefore, the interviews with the subordinates of technical experts occurred first, giving the researcher more insight into leadership challenges experienced by the subordinates of technical experts before the interviews with the technical experts as managers. In addition, this order of the interviews gave the researcher more context and enabled her to ask useful follow-up questions.

An overview of the broad interview framework is set out in Figure 2. As per box 2(a), the interview started with the leadership challenges that the subordinates of a technical expert experience from their perspective. The order of questions in the interview is important to mitigate the possibility of earlier questions influencing participants' responses to questions that follow. A recency bias was mitigated by not starting with questions about servant leadership. Recency bias is a tendency to base thinking or answers on what was recently heard (Philips-Wren et al., 2019). Next, as per box 2(b), the researcher asked questions to explore the presence or absence of leadership challenges, as identified in the literature.

As per box 2(c), following the discussion about the leadership challenges experienced, the researcher asked questions to gauge the servant leadership characteristics of the subordinate's manager. A servant leadership questionnaire by Liden et al. (2008) was utilised to

inform the interview questions. The servant leadership questionnaire is a multidimensional measure of servant leadership and originally had twenty-eight questions measuring seven major dimensions of servant leadership. The key dimensions include conceptualising, emotional healing, putting followers first, helping followers grow and succeed, behaving ethically, empowering, and creating value for the community.

The Liden servant leadership questionnaire was originally generated using student data, but the results of an organisational sample validated it. Liden et al. (2008) assessed the relationship between servant leadership and relevant organisational outcome variables using data from subordinates and supervisors. The compilation and validation of the servant leadership questionnaire by Liden et al. (2008) made the questionnaire credible and trustworthy to use as a basis for developing interview questions.

Next, as per box 2(d), the interview explored from the subordinate's perspective if a servant leadership style can be relevant to address the specific leadership challenges experienced. Finally, as per box 2(e), some factors that can make it easier or harder for a technical expert to be a servant leader, as identified in the literature, were discussed.

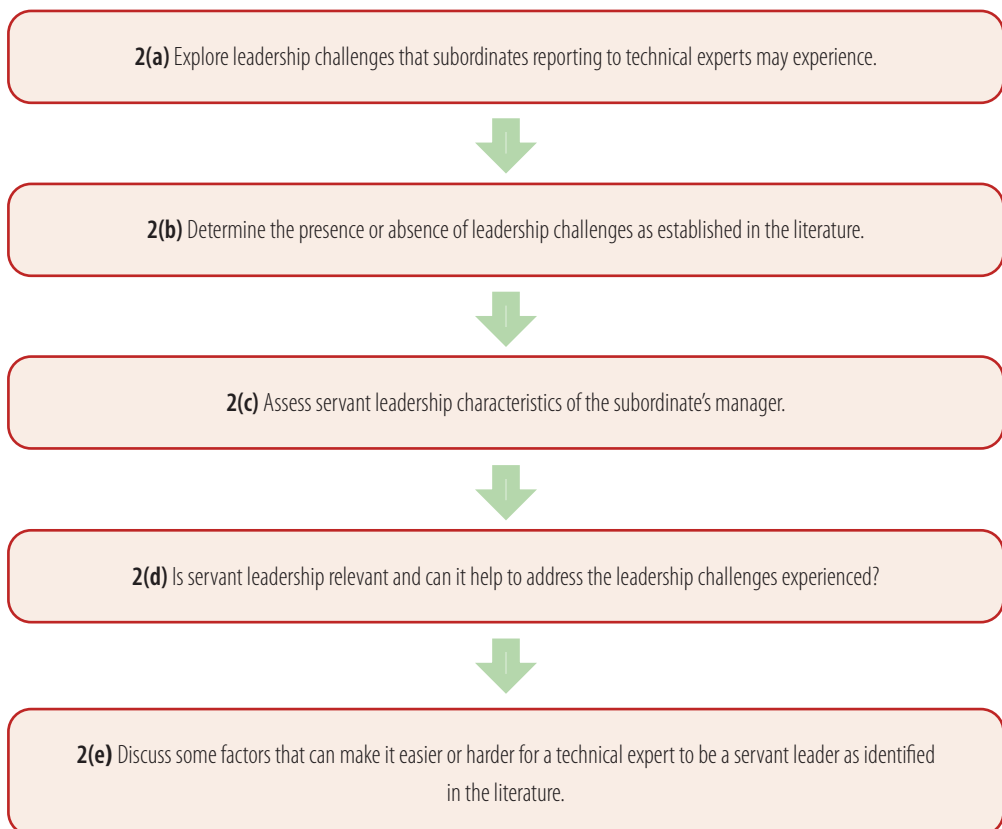


FIGURE 2 Interview framework for the subordinates of technical managers as experts

4.1.2 PHASE 2: SEMI-STRUCTURED INTERVIEWS WITH THE TECHNICAL EXPERTS AS MANAGERS

The interviews with technical experts as managers occurred second. The broad interview framework is set out in Figure 3. The semi-structured interviews in phase two followed a similar order as in phase one for similar reasons. As per box 3(a), the interview with the technical experts as managers started with the leadership challenges that the technical expert as manager experienced from their perspective. Next, as per box 3(b), questions were asked to explore the presence or absence of the leadership challenges identified in the literature.

As per box 3(c), the interview continued to explore whether servant leadership can be relevant in addressing the specific leadership challenges experienced in their managerial positions. Next, as per box 3(d), the interview explored which factors make it either easier or harder for the technical expert to be a servant leader. Finally, as per box 3(e), the factors that made it either easier and harder for a technical expert to be a servant leader, as identified in the literature, were explored.

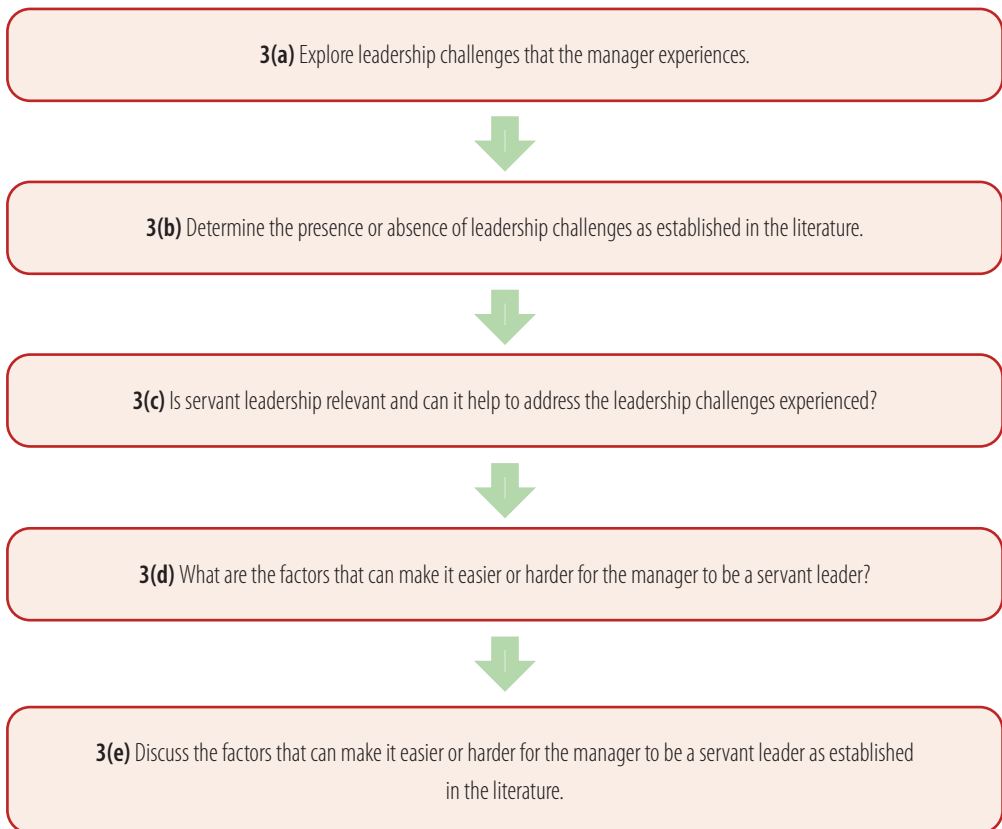


FIGURE 3 Interview framework for the technical managers as experts

4.2 Sampling and data collection

For the purpose of this research, the target population for the first phase included subordinates of technical experts as managers, and the target population for the second phase included technical experts in managerial positions. The subordinates in the first phase were independent and did not report to any of the managers interviewed in the second phase. Technical experts and subordinates within the actuarial, accounting, and legal professions were deliberately approached and asked if they were willing to participate in their personal capacity. The semi-structured interviews were about one hour for each participant and covered about 12 to 15 questions. One hour was considered a reasonable maximum length for semi-structured interviews to minimise fatigue for both the interviewer and the respondent (Adams, 2010).

The potential participants were professional contacts of the researcher for whom the researcher already had contact details. The researcher has no authority over the potential participants and no material personal affiliation to the potential participants to mitigate conflict of interest and uphold the credibility and trustworthiness of the research. A non-probabilistic availability sample of eight technical expert managers and eight subordinates was selected based on a fit-for-purpose approach to allow the research objectives to be explored (Emmel, 2014, pp. 45–66). The benefits of non-probability sampling include requiring the least time, money, resources, and skills (Daniel, 2012, pp. 82–90). However, non-probability purposive sampling can lead to assumptions and the inappropriate generalisation of the population (Etikan & Bala, 2017).

The risk of inappropriate generalisation can be mitigated if the researcher is objective, open to the participants' perspectives, and attentive to the data, by recording the data exactly as it is said by the participants. This is important in social science research methodology (Ezzy, 2010). The interviews were conducted virtually on Microsoft Teams and recorded. After an interview, the recording was transcribed using the software, Sonix.

4.3 Data analysis

Qualitative analysis of the interview data was done using thematic analysis. Thematic analysis principally focuses on identifying, organising, and interpreting themes from the data (King & Brooks, 2018, pp. 219–233). Themes are defined as recurring and distinctive features in the participants' responses that the researcher sees as relevant to the research objectives (King & Horrocks, 2010, p. 150). Template analysis, a generic style of thematic analysis not tied to a particular philosophical position (King & Brooks, 2018, pp. 219–233), was used. Template analysis is a structured approach with procedural steps of analysis that can be used to define and organise themes from the interview data.

The first step in template analysis is to become familiar with the data to be analysed. The researcher conducted the interviews and was, therefore, already familiar with the data after the interviews were concluded. Next, the researcher did a preliminary coding of the interview data of four interviews at a time. The researcher did the thematic analysis manually using

Microsoft Excel. Every section of the text that offered something relevant to the understanding in relation to the research objectives was highlighted, with a note that included a short code title. The next step towards developing the initial template was to group the preliminary codes into meaningful clusters. After preliminary coding the first four sets of interview transcripts, the researcher compiled an initial template version. The template identified broader themes with narrower themes nested within the broader themes. This process was done iteratively and systematically. The template was modified and developed after each set of four interview transcripts had been analysed until the researcher was convinced that the template offered a rich and comprehensive interpretation of the data. The researcher used the final template to make a definitive interpretation of the data before writing the research results (King & Brooks, 2018, pp. 219–233).

4.4 Ethical considerations

Ethical considerations are important to protect the rights of the research participants and maintain the research's credibility and trustworthiness. Therefore, interviews with participants only proceeded once informed consent had been received in writing, explaining the purpose, benefits and risks of the study. The informed consent also explained that the interview would be recorded and how the data would be used and stored until the end of the study, after which it would be deleted.

Participants participated in the research study in their personal capacity and not as an employee of any organisation. Participation in their personal capacity was confirmed in the informed consent form. As such, organisational permission was not required. The interviews were conducted on a confidential basis. The respondents' identity and place of work were not disclosed in the interview results, as that information was not relevant to the research study. When subordinates were interviewed, the name of their manager was kept anonymous. The interviews were conducted outside of normal office hours, per agreement with the participants, to mitigate the participant being overheard. In an online environment with virtual interviews, it was also important to ensure that the participants were familiar with and comfortable with the technology used (Engward et al., 2022).

The participants' identities were not disclosed in the research results and were erased from the interview data. Participants were referred to using a coding system, e.g., 'Participant 1_Subordinate'. The principles of respect for and confidentiality of the participants and their contribution were always upheld. All the interview recordings and data are stored securely in OneDrive on a computer with a bit locker code and password. Only the researcher has access to the data.

5. RESEARCH FINDINGS

5.1 Realised sample description

A non-probabilistic availability sample of eight technical experts, and eight subordinates was selected based on a fit-for-purpose approach. The semi-structured interviews were conducted between 5 July and 6 September 2022. Eight subordinates of technical experts were interviewed in phase one, and eight technical experts as managers were interviewed in phase two.

TABLE 2 Research participants in phase one

Subordinates that report to a technical expert			
Industry	Current job title	Sex	Years of work experience
Actuarial	Actuarial manager	Male	10 years
Actuarial	Asset liability manager	Male	10 years
Actuarial	Product implementation specialist	Female	30 years
Actuarial	Actuarial specialist	Female	14 years
Legal	Legal and compliance manager	Female	18 years
Actuarial	Business development actuary	Male	8 years
Accounting	Finance manager	Male	13 years
Actuarial	Actuarial analyst	Male	10 years

TABLE 3 Research participants in phase two

Technical experts as managers			
Industry	Current job title	Sex	Years of work experience
Actuarial	Head: Pricing	Male	16 years
Actuarial	Senior manager	Female	16 years
Actuarial	Pricing actuary	Male	15 years
Actuarial	Actuarial expert	Male	7 years
Actuarial	Pricing actuary	Male	17 years
Legal	Legal executive	Male	20 years
Actuarial	Head: Group insurance	Male	17 years
Actuarial	Actuary	Female	15 years

The level of management of the subordinates in phase one was mostly middle management, while the level of management for the technical experts as managers in phase two ranged from senior to executive-level management. Most participants (N=13, 81.25%) were in the actuarial profession. Two participants (N=2, 12.5%) were in the legal profession, and one was in the accounting profession (N=1, 6.25%). Eleven participants were male, and five were female (68.75% male, 31.25% female).

5.2 Key themes and sub-themes from the thematic analysis

The key themes and sub-themes from the thematic analysis were identified from the interviews (Table 5.3). The themes and sub-themes are interdependent and not neatly separable, and overlap in discussion is unavoidable.

TABLE 4 Key themes and sub-themes from the thematic analysis

Key themes	Sub-themes
Leadership challenges that technical expert managers may experience	1.1 Technical expert managers may struggle to relate to subordinates on a human level 1.2 Technical experts are open to listening to alternative views and opinions, but there may be resistance to accepting alternative views 1.3 Technical expert managers struggle with delegation and limited time capacity, which makes people management difficult 1.4 Egocentric thinking may present a leadership challenge for technical experts as managers 1.5 Technical expert managers may have limited influence higher up in the hierarchy, which may limit exposure and development opportunities for their subordinates
Factors that make it easier for technical experts as managers to assume a servant leadership style	2.1 Emerging technical experts look for a technical expert as a leader 2.2. The legacy motive for many technical experts goes beyond just making a difference on a technical level to having an impact on people 2.3 Servant leaders create servant leaders 2.4 Organisational culture and where the organisation is in its growth cycle can either make it easier or harder for managers to assume a servant leadership style 2.5 Interpersonal and leadership skills improve with experience
The relevance of servant leadership for a technical expert as manager	3.1 If the organisational objectives are met, everyone benefits 3.2 You need people to carry the organisation forward

5.3 Theme 1: Leadership challenges that technical expert managers may experience

5.3.1 SUB-THEME 1.1: TECHNICAL EXPERT MANAGERS STRUGGLE TO RELATE TO SUBORDINATES ON A HUMAN LEVEL

A strong theme that could be identified from both the subordinates’ and technical expert managers’ perspectives is that technical expert managers struggle to relate to subordinates on a human level. Subordinates may experience a disconnect with technical expert managers and difficulty in building a relationship beyond a formal work relationship. Technical experts may find it harder to show empathy and sympathy.

... but I never really developed that personal connection with him ... because he was just a little bit robotic. So, he’s definitely trying, but it almost feels forced, you know? (P6_Subordinate)

Just that thing of relating to people. Right, so actually it's showing empathy and sympathy and just relating because you often just think in technical terms and not thinking that there is a person also that you're dealing with.

(P8_Technical expert as manager)

The consequences of technical expert managers' inability to relate or build stronger relationships with subordinates include poor communication and information sharing. In addition, managers may not know what motivates subordinates, particularly subordinates who don't have the same technical background as the technical expert manager. Often, subordinates may take it upon themselves to manage and motivate the team on behalf of the technical expert manager.

There is probably some evidence that technical experts tend to be less people-savvy. So, I wouldn't necessarily say that I am completely obtuse to interacting with people, but I think understanding or learning to understand that sometimes the way I think about some of the things that motivate me are very different to the general person, especially non-technical people, and learning how to channel that and be more empathetic, sometimes create[s] a bit of a block.

(P3_Technical expert as manager)

... but they are a poor manager, and then you end up having to manage your own team anyway and undo a lot of the damage that they are doing. (P5_Subordinate)

The challenge in relating to subordinates was not because of hierarchical matters, as most participants indicated that their relationship with their technical expert manager was on equal footing. So, the study did not indicate high power distance relationships as one may expect (Issac, 2022). Rather, the findings under sub-theme 1.1 indicated that technical experts as managers might experience interpersonal leadership challenges that can hinder effective leadership. The findings relating to the interpersonal leadership challenges align with previous research on soft skills shortage and a less developed relationship domain (Gordon, 2020; Joseph et al., 2010; Taylor & Benbow, 2016).

Given the interpersonal leadership challenges that technical expert managers experience and the finding that technical expert managers struggle to relate to subordinates on a human level, there is not a strong indication that technical expert managers generally adopt a servant leadership style. Servant leaders tend to operate from a stronger relationship domain because they generate high levels of trust, show concern for others, and communicate and listen well (Reinke, 2004; Stone et al., 2004). Servant leaders have an interpersonal accepting attitude that creates a safe and trusted psychological climate (Reinke, 2004; Van Dierendonck, 2011).

5.3.2 SUB-THEME 1.2: TECHNICAL EXPERTS ARE OPEN TO LISTENING TO ALTERNATIVE VIEWS AND OPINIONS, BUT THERE MAY BE RESISTANCE TO ACCEPTING ALTERNATIVE VIEWS

Most of the subordinates and the technical expert managers themselves confirmed that technical experts as managers were open to listening to alternative views and opinions; however, there was some evidence of resistance to accepting alternative views and opinions.

I think we understand the same problem in a different way, but he is just stuck in what he sees. (P3_Subordinate)

So as an example, they might ask for opinions, but just for the sake of asking opinions where the decision sometimes feels like it was already made. That's probably the bulk of my experience. (P8_Subordinate)

Managers' behaviour in being open to listening to alternative views and opinions may indicate that they are aware that it is important to consider employees' voices. However, the resistance to accepting alternative views that subordinates perceived doesn't provide confidence that technical expert managers truly value that balanced information processing, obtaining broader perspectives and differing opinions can improve their decision-making (Larrick, 2009; Rego et al., 2018). This finding of resistance to accepting alternative views offers evidence that the paradox of power may be a leadership challenge for technical expert managers and that they may underutilise the intelligence around them, which leads to leadership inefficiency. The paradox of power relates to decision rights being coupled with the power-induced neglect of the judgement of others and that advice from others may be undervalued and own opinion overvalued (Bonaccio & Dalal, 2006; Tost et al., 2012). Therefore, accepting alternative views and opinions by technical expert managers may be situational.

... it also depends on how convinced I am of what I was thinking..., as well as the credibility that the other person has. (P1_Technical expert as manager)

... but I also guess it depends on how comfortable I feel with the topic and how convinced I am of my own opinion. (P2_Technical expert as manager)

Accepting alternative views seems to depend on how convinced or comfortable a technical expert manager is with the topic. So, in their area of expertise, technical expert managers may struggle most with the paradox of power as a leadership challenge.

5.3.3 *SUB-THEME 1.3: TECHNICAL EXPERT MANAGERS STRUGGLE WITH DELEGATION AND LIMITED TIME CAPACITY, WHICH MAKES PEOPLE MANAGEMENT DIFFICULT*

Clearly, most technical expert managers struggled with limited time capacity because they had to attend to technical matters and manage people. However, the challenge of limited time capacity may be exaggerated by inadequate delegation. A lack of delegation by technical expert managers can limit subordinates' growth. In addition, many technical experts are task-driven and prefer technical work that may further contribute to them not delegating tasks adequately to their subordinates.

So, everyone is just, I guess, stretched to the max in terms of getting to everything ... And I think that's what happens to me when I'm under pressure, I just want to get the stuff done. (P2_Technical expert as manager)

So, I think there's an element of insecurity from the senior manager's perspective in terms of delegating responsibilities and empowering his direct reports, which then kind of flows through to my level, unfortunately. (P8_Subordinate)

During training and development from an early age, technical experts learn to become self-reliant and to perform as individuals. Therefore, letting go of control, collaboration, and developing interpersonal skills as a manager later in their careers, may require more effort. A further consequence of limited time capacity among technical experts is that there may be a lack of mentorship for the technical expert as a leader. This is unfortunate because servant leaders create servant leaders (Greenleaf, 1998, p. 123).

I feel like I need more mentoring, actually, but there's less time for it, you know?
(P2_Technical expert as manager)

On the other hand, limited time capacity may encourage technical expert managers to share more knowledge and hand over matters to emerging technical experts to lighten their workload. In addition, a paradoxical finding of the study was that most technical expert managers were willing to share their knowledge with no evidence of resistance to protect their competitive advantage.

But I've found that if you are willing to share and to train and upskill, your opportunities tend to be more, not less. The people in leadership positions above you take note of the fact that you share your skills and are good at upskilling those around you, and therefore, they create leadership opportunities for you in which you can do that. (P1_Technical expert as manager)

Benefits of sharing knowledge and delegating adequately to subordinates are that technical expert managers can spend more time on people management and on strategic developments that can impact business growth positively, leading to better leadership efficiency.

5.3.4 SUB-THEME 1.4: EGOCENTRIC THINKING PRESENTS A LEADERSHIP CHALLENGE FOR TECHNICAL EXPERTS AS MANAGERS

Many subordinates indicated that it seems difficult for the technical expert as manager to understand or consider a matter from another’s perspective. Egocentric thinking refers to a cognitive bias in that the technical expert manager would assume that others share the same perspective they do. This assumption may stem from a knowledge gap, where the technical expert assumes that the subordinate has a similar level of knowledge on a particular topic. It may also relate to not looking at a problem from the same reference point, for example, from a theoretical and not from a practical perspective.

They expect everybody to know what they’ve collected over the years.
(P2_Subordinate)

I think it is maybe that leader does really understand the technical aspects, but he does not understand how to make it practical in a practical environment.
(P3_Subordinate)

Egocentric thinking may also make it difficult for a technical expert manager to manage, communicate and collaborate with subordinates from different professional backgrounds. In this scenario, the technical expert manager cannot be self-reliant, and it is important to utilise the intelligence around them.

Where I think I’ve struggled as well is where people are reporting to me from a different profession. (P3_Technical expert as manager)

At the highest level of moral cognitive development, mutual respect and imagining how things look from another person’s perspective become part of the decision-making and reasoning process (Kohlberg & Kramer, 1969). So, to manage people unassumingly while being aware of potential biases that one may have requires development.

5.3.5 SUB-THEME 1.5: TECHNICAL EXPERT MANAGERS MAY HAVE LIMITED INFLUENCE HIGHER UP IN THE HIERARCHY, WHICH MAY LIMIT EXPOSURE AND DEVELOPMENT OPPORTUNITIES FOR THEIR SUBORDINATES

Some subordinates noted that technical experts as managers seem to have limited influence higher up in the hierarchy. This may be because technical expertise is seen more as an input to business decision-making rather than a driver for decision-making.

The feedback gets taken and then given to the higher powers. But then, yeah, in terms of her influence there, I'm not too sure. (P1_Subordinate)

People that know the business might have a little bit more influence than technically focused people that have the answers. So, the technical expertise is seen more as an input to decision-making than a driver for decision-making, if I can put it that way. (P8_Subordinate)

For a lot of my managers over the years, I think they also didn't have that power to really go and find out what they can do or what they can change.

(P6_Subordinate)

Subordinates felt that if their technical expert manager had limited influence higher up in the hierarchy, it might limit their exposure to higher levels in the business. As a result, subordinates may miss further growth opportunities beyond their area of expertise, such as strategy, business administration and management. The perception of technical experts that business hold and their involvement in only technical matters can be a negative reinforcing cycle that presents a leadership challenge to technical expert managers, which can also be to the detriment of their subordinates' growth and empowerment.

I think I might not get the exposure that I could get, or I might not be involved in certain conversations where I could be ... So, it's just this perception of what my skills are, and my skills are only this, that could play a part in that as well.

(P8_Subordinate)

So, there's definitely still some of that as a challenge that technical managers will face as they come in, and people have a preconceived idea of what they're supposed to be. (P1_Technical expert as manager)

A less developed relationship domain and challenges with interpersonal skills may make it harder for technical experts to manage upwards, challenge the stereotype of a technical expert, and achieve more influence higher up in the hierarchy (Gordon, 2020).

5.3.6 CONCLUDING REMARKS – THEME 1

The findings of sub-themes 1.1 to 1.5 identified leadership challenges that technical expert managers may experience. Most of the leadership challenges can be linked to challenges experienced in the interpersonal domain, like struggling to relate to subordinates on a human level, egocentric thinking, the paradox of power that results in a resistance to accepting alternative views and difficulty having influence higher up in the hierarchy.

The findings align with research indicating that technical expert managers may

experience interpersonal leadership challenges that can hinder effective leadership. As shown in the literature review, previous studies indicated that although experts tend to be strong in the technical domain, they often struggle in the relational domain (Gordon, 2020). The findings thus confirm that technical expert managers struggle to relate to subordinates on a human level. The finding of the paradox of power that results in resistance to accepting alternative views also aligns with previous research that indicated that a technical expert has expert power that may often lead to overconfidence that inhibits advice-taking (Tost et al., 2012).

The findings of technical experts' egocentric thinking and their difficulty in influencing higher up in the hierarchy were new challenges highlighted by this research study, which were not previously identified in the literature review. A further challenge not identified in previous research is that technical expert managers often struggled with limited time capacity due to a lack of delegating technical work or projects.

This study showed no evidence of the leadership challenge of limited knowledge sharing by technical expert managers. Previous research noted that experts face a conflict of interest in knowledge sharing in that from a social or collective perspective, experts should share their knowledge, but individually, they are better off not to because acquiring knowledge is costly, and they would give up their competitive advantage (Moser, 2017). In contrast, most of the participants in this study indicated that technical expert managers are very willing to share their knowledge.

5.4 Theme 2: Factors that make it easier for technical experts as managers to assume a servant leadership style

Participants noted many factors that make it easier for a technical expert as a manager to assume a servant leadership style. The sub-themes below describe factors that have been repeatedly mentioned.

5.4.1 SUB-THEME 2.1: EMERGING TECHNICAL EXPERTS LOOK FOR A TECHNICAL EXPERT AS A LEADER

Some of the subordinates interviewed are emerging technical experts who confirmed that they valued having a technical expert as a manager in their specific field of expertise. Subordinates want access to the technical expert's knowledge, skill, and experience. On the path towards a professional qualification, technical expert managers can offer valuable guidance and mentorship to emerging technical experts. Technical expert managers in the same field of expertise may also have a better understanding of what it takes to achieve a specific qualification and can, therefore, provide better moral support to emerging technical experts.

It helps because I get exposure to that knowledge and skills. (P4_Subordinate)

So, with us being in a very technical environment. I think a lot of the time, you also expect to learn a lot from your manager in that sense. (P8_Subordinate)

Therefore, subordinates are more willing to follow the leadership of the technical expert manager, and, in turn, the technical expert manager's credibility will positively impact their influence as a leader. Technical expert managers may also be able to relate better to subordinates in the same field of expertise, which will support better working relationships.

I think the better expertise you have, the more you're able to influence, actually.
(P5_Subordinate)

Most of the subordinates noted that the technical experts are always willing to help and to share knowledge and that their managers rather provide guidance than a full solution when they require assistance. Most subordinates also felt they had accountability and responsibility for their role. In this sense, the technical expert managers do not foster dependency on themselves but rather empower and develop emerging technical experts.

5.4.2 SUB-THEME 2.2: THE LEGACY MOTIVE FOR MANY TECHNICAL EXPERTS GOES BEYOND JUST MAKING A DIFFERENCE ON A TECHNICAL LEVEL TO HAVING AN IMPACT ON PEOPLE

It was clear that not many technical expert managers have thought about their legacy motive, i.e., what they want to be remembered for when they retire. But, interestingly, almost all the technical expert managers described their legacy motive as wanting to make a difference beyond just the technical work they deliver or just meeting organisational objectives to having a bigger impact on people.

You don't remember the work necessarily, but you remember the feeling that you had with people and that connection. So, I think it's just making that connection and really being known for someone who's there for you when you need me.
(P2_Technical expert as manager)

I want to be remembered as someone who was able to empower people. I want someone to say I am who I am because I had this great manager who inspired me and gave me the tools to be the person I am. (P6_Technical expert as manager)

Ironically, the interviews often revealed that what the technical expert managers are currently spending most of their time on, i.e., technical work instead of the people management aspect is not aligned to what they need to do to achieve their stated legacy motives.

It was quite interesting to explore your legacy motive versus what you're currently doing and just realising how disjointed it is. (P2_Technial expert as manager)

Technical expert managers' legacy motives may encourage them to lean more towards a servant leadership style.

5.4.3 SUB-THEME 2.3: SERVANT LEADERS CREATE SERVANT LEADERS

Some technical expert managers indicated that they were fortunate to learn from other servant leaders, like previous managers or even their parents, making it easier for them to assume a servant leadership style. The example of a servant leader allows for first-hand experience of the benefits of servant leadership, which inspires subordinates to be servant leaders. Managers that consider their subordinates' best interests build trust and respect and improve loyalty toward them, which benefits the manager and the organisation.

I think what has made it easy is I've definitely had leaders whom I would call servant leaders. I think I've been very fortunate. Yeah. I've been lucky in that those have been the leaders that have impacted me the most.

(P3_Technical expert as manager)

I actually learned it from my parents. I feel my parents were servant leaders, but I didn't understand it at that stage. (P5_Technical expert as manager)

Servant leaders create servant leaders. A servant leader leads by example through their behaviour and by inspiring others to do the same. The opposite also holds, in that poor behaviour by management can inspire others not to adopt the same leadership style.

I did try to resign last year because I was not happy with the way a specific manager was treating my subordinates. (P5_Technical expert as manager)

Another interesting perspective was that the younger generation, or the millennials, are purpose-driven and look for leadership as a relationship in the workplace.

So, for the millennials, questions in terms of why we're doing things and what we're helping with becomes important ... We want to be in an enjoyable environment where we can trust people. More of a family environment rather than feeling like we're working in a factory ... But yes, I think if I had someone like my current manager very early on in my life, I probably wouldn't have jumped ship as much as I did. (P8_Subordinate)

The purpose-driven mindset of millennials and how they view the importance of relationships in the workplace may make servant leadership more relevant and can help to reduce turnover. Therefore, one may also be able to say that those who value servant leadership also seek servant leaders.

5.4.4 SUB-THEME 2.4: ORGANISATIONAL CULTURE AND WHERE THE ORGANISATION IS IN ITS GROWTH CYCLE CAN EITHER MAKE IT EASIER OR HARDER FOR MANAGERS TO ASSUME A SERVANT LEADERSHIP STYLE

From the findings, it was clear that organisational culture can either be supportive or not of managers assuming a servant leadership style. In addition, organisational culture influences the power distance relations between staff or where the primary focus of managers lies, e.g., on the organisation's objectives or the staff's well-being and growth.

Our organisational culture is very supportive, especially being in an actuarial community. There's a lot of things that's been in place for many years, and it's well developed to actually ensure that people do grow.

(Participant 8_Technical expert as manager)

If the culture does not come from the top, it's going to be very difficult to assume a servant leadership style. (Participant 5_Technical expert as manager)

Another influence on how easy or hard it is to assume a servant leadership style is where a business is in the growth cycle. Typically, managers in younger or start-up businesses find it harder to assume a servant leadership style because focusing on achieving business sustainability may mean less time to spend on the people management side.

So, I myself am in the start-up environment. It definitely is more difficult to balance what I need to do immediately with having critical conversations with subordinates. However, the fact is that if a person leaves, that's a whole loss of IP.

(P3_Technical expert as manager)

If you all of a sudden double in size, it really makes a difference ... We've had a lot of work so we could employ more people. But it's almost like that rat race of trying to stay ahead, and we probably didn't spend enough time on the softer management side. (P2_Technical manager as expert)

An important consequence of servant leadership in an organisation is that servant leadership can bring about deep change in organisations, which can extend to a positive impact on customer service.

Focusing as well on what impact I can have on people's lives through the solutions I offer to the company and through the company to the industry.

(P1_Technical manager as expert)

Therefore, although organisational culture can influence how easy or hard it is for the technical expert manager to adopt a servant leadership style, on the other hand, servant leadership can also influence organisational culture, for example, by encouraging client centricity. It can be a virtuous cycle.

5.4.5 SUB-THEME 2.5: INTERPERSONAL AND LEADERSHIP SKILLS IMPROVE WITH EXPERIENCE

Often technical experts are promoted into leadership roles due to their technical expertise but without leadership development. The technical expert manager may experience leadership challenges to the detriment of the organisation, their subordinates, and themselves.

I was put into that role purely because I had technical skills, but then definitely I didn't have managerial skills, you know, so that was a challenge ... It used to cause anxiety in my life. Right, that I would want to run away from the job.

(P6_Technical expert as manager)

Technical experts as managers could improve their interpersonal skills with experience to the point that some managers now consider their leadership skill as their competitive advantage in a technically orientated environment. In response to the question of whether technical or interpersonal skills come easier to them, several of the technical experts as managers concluded that although technical skills came easier at the start of their careers, with more leadership experience, interpersonal skills come easier.

Over a period of time, with experience, I evolved and got better. But then I have to say, it was self-taught. (P6_Technical expert as manager)

I want to believe my technical skill, but I think more recently, probably more the interpersonal skill. I think it's changed, and I think I've changed over the years.

(P8_Technical expert as manager)

Probably the interpersonal skills. It's what I've been doing more of for the last couple of years. (P7_Technical expert as manager)

Evidently, interpersonal and leadership skills can be developed and improved. Technical expert managers can avoid the Peter Principle and grow into their roles as influential leaders. Practice-based experience seems most efficient in enhancing leadership skills, but

it may take a long time. Methods to accelerate experience-based learning will be beneficial for technical expert managers. One way to do so may be through mentorship by more experienced technical expert managers.

It becomes very difficult for you to be a leader and at the same time be that technical person. Right. Unless someone takes you under their wing and they train you to be a leader. (P6_Technical expert as leader)

Technical experts can add significant value as managers and leaders in their field of expertise. In addition, leadership development, experience and mentorship can assist in achieving better leadership efficiency.

5.4.6 CONCLUDING REMARKS – THEME 2

The findings of sub-themes 2.1 to 2.5 identified factors that make it easier for technical experts as managers to assume a servant leadership style. Emerging technical experts look for a technical expert as a leader. This finding aligns with previous research noting that status and credibility can enhance a leader's power and influence (Goodall, 2010). Remarkably, and in contradiction to previous research, there was no indication that subordinates experienced dependency-orientated help where technical expert managers only offer quick answers or complete solutions instead of guiding them towards finding solutions themselves (Alvarez & Van Leeuwen, 2011; Quinn, 1996, pp. 115–120). There was no evidence that the technical expert managers' high expert power caused them not to be perceived as humble (Rego et al., 2018). Therefore, humility and integrity further supported the technical expert managers' positive influence as leaders.

The legacy motive for many technical experts went beyond just making a difference on a technical level to having an impact on people. The legacy motives of the technical expert managers align with previous research stating that a legacy motive can provide a link to a life-meaning motivation such as having the desire to have a positive effect on others and leaving the world a little better off for their presence in it (Fox et al., 2015). Technical experts as managers offer significant promise to be impactful leaders. The effects on social and human capital, driven through their legacy motive, can benefit technical expert managers by positively influencing their leadership reputation (Hall et al., 2004).

The example and influence of servant leaders extend further by encouraging their subordinates to adopt a servant leadership style. The finding aligns with Greenleaf's theory that servant leaders create servant leaders (Greenleaf, 1998, p. 123). Subordinates who value servant leadership may also seek other servant leaders to work for. The study supported previous research on how a culture of empowerment and servant leadership can help mature organisations to maintain employee satisfaction (Smith et al., 2004). However, participants also referred to the difficulty of applying servant leadership in a fast-growing organisation. Previous research noted that in a start-up or growing organisation, spending

more time on subordinates' growth may lead to a decrease in the expert's required level of performance (Hinds & Pfeffler, 2003).

There was strong evidence that with time and experience, the interpersonal skill or servant leadership capability of technical expert managers improves, and they become more confident of relying on their interpersonal skills and leadership, and not just their technical skills. They overcome the tyranny of competence with time and experience (Quinn, 1996, pp. 115–120). This finding aligns with research saying that interpersonal skills learning comes from exposure to real-world work situations (Taylor & Benbow, 2016).

5.5 Theme 3: The relevance of servant leadership for a technical expert as manager

5.5.1 SUB-THEME 3.1: IF THE ORGANISATIONAL OBJECTIVES ARE MET, EVERYONE BENEFITS

Focusing on organisational objectives is necessary due to business sustainability and growth, meeting deadlines, deliverables, and achieving short-term incentives. There may be competition among leaders. For example, if a leader neglects the organisation's objectives, they may be replaced by somebody who chases and achieves the goals. On the other hand, if the organisational objectives are met, everyone will benefit through financial reward, and business growth may lead to further growth opportunities for staff.

... because if the organisation meets the objectives, it's to the benefit of all the team members. (P3_Subordinate)

I think management doesn't always have a long-term outlook. They are incentivised for the short term, and they are measured by short-term gains.
(P2_Subordinate)

To actually see the fruits of a servant leadership style is not as immediate, compared to if they focus on the bottom line. (P5_Subordinate)

It was noted that a subordinate or manager's key performance criteria mainly determines which deliverables will receive the most focus, because meeting the key performance criteria will determine how the employee gets financially rewarded. Key performance criteria mostly align with the organisational objectives. Therefore, short-term incentives normally encourage leadership to have more of a focus on organisational objectives versus having a primary focus on their subordinates' growth and development.

5.5.2 SUB-THEME 3.2: YOU NEED PEOPLE TO CARRY THE ORGANISATION FORWARD

On the other hand, not growing subordinates will stifle organisational objectives. It is impossible to perform well in an organisation when a team is negative or disengaged. An organisation may also experience high turnover, which can be costly.

But then I think the human factor is important because then you also need people to carry the organisation forward. (P6_Technical expert as manager)

And one of the things that actually keep[s] your team engaged and happy and motivated and energised is to actually have a focus on their growth and their potential. (P8_Technical expert as manager)

It was noted that managers that put the growth and well-being of their subordinates first get better output from their subordinates, with the potential to exceed the metrics that measure the achievement of the organisational objectives. In the end, the growth of subordinates means that the results will follow, and the organisation can also grow. In addition, developing and empowering subordinates creates space for the manager to grow into other areas, like strategic thinking.

As noted by a participant who works in a consultancy based on billable hours, it may be easier to spend more time on subordinates' growth and development where mentorship is part of a manager's key performance criteria.

So, when you join, and you're a new person, I think 90% of your KPC goes towards how many billable hours have you actually done this year? Have you reached your target? And that decreases as you become more senior.

(P2_Technical expert as manager)

He's very good at, let's call it separating manager responsibilities and mentor responsibilities. (P8_Subordinate)

Therefore, the benefit of focusing on subordinates' growth and development in the organisation is recognised by technical expert managers. The benefits include a more engaged, productive and satisfied workforce that carries the organisation forward. However, limited time capacity and short-term business priorities can make it difficult to adequately focus on subordinates' growth and development.

5.5.3 CONCLUDING REMARKS – THEME 3

Finding 3.1 indicated that participants believe that everyone benefits if the organisational objectives are met. Previous research explains that transformational leadership builds commitment to the organisational objectives and inspires subordinates towards a shared vision (Smith et al., 2004). So, a primary focus on organisational objectives aligns with a transformational leadership style. On the other hand, a focus on meeting organisational objectives must not be to the detriment of subordinates' growth and development. Participants noted, per finding 3.2, that focusing on people is necessary to drive the organisation forward. Previous research explains that a servant leader focuses

on subordinates' empowerment and views organisational concerns on a peripheral basis, trusting that organisational results will follow as a secondary outcome (Patterson, 2003; Stone et al., 2004). So, a primary focus on subordinates' growth and empowerment aligns with a servant leadership style.

The findings from Theme 3 indicate that the technical expert as manager may experience conflict between meeting the shorter-term business objectives and the longer-term development needs of subordinates. The requirement of a balance in focus between organisational objectives and the empowerment of subordinates may indicate that a balance between a transformational and servant leadership style may be most suitable for technical experts as managers.

6. DISCUSSION

This research study discussed that many organisations promote technical experts with little or no leadership training or managerial experience. This shortage of leadership development may cause leadership challenges and inefficiency to the detriment of technical experts as managers, their subordinates, and the organisation. From the study's results, several leadership challenges were identified, particularly in the interpersonal domain, which makes it harder for technical expert managers to be effective leaders. Servant leadership may assist in mitigating the leadership challenges that technical expert managers experience because a servant leader tends to operate from a stronger relational domain with a primary focus on the well-being and empowerment of subordinates.

Adopting a servant leadership style may further assist technical expert managers to lead more effectively by encouraging adequate delegation. This will help mitigate the leadership challenge of limited time capacity that technical expert managers experience, which makes people management difficult. Servant leadership can encourage delegation by technical expert managers because servant leaders strive to provide and delegate stretch assignments to their subordinates to promote their growth and empowerment.

Several factors have been identified in the research, including paradoxical findings that make it easier for technical expert managers to be impactful servant leaders. The paradoxical findings in the study indicated there were no high-power distance relationships between technical expert managers and their subordinates; instead, most relationships were on equal footing, and technical experts were very willing to share their knowledge with subordinates. Other factors that make it easier for technical expert managers to be servant leaders include that emerging technical experts look for a technical expert as a manager, and the example set by servant leaders creates more servant leaders. Therefore, the positive impact of servant leadership can be multiplied among technical experts. In addition, technical expert managers are mostly humble and have integrity. Furthermore, the ethical code of their professions often supports their integrity and influence as a leader. Lastly, the legacy motive of most technical experts goes beyond just making a difference in the technical area of work to making a positive impact on people.

Importantly, an organisation's culture and where the organisation is on its growth cycle may either support or not support a servant leadership style. Technical expert managers may be conflicted between meeting short-term business objectives and meeting the longer-term growth needs of their subordinates. For example, an organisation in a start-up or growth phase will primarily focus on meeting the organisation's objectives and making the business sustainable. Therefore, a technical expert manager who solely assumes a servant leadership style may fall short. A balance between a transformational and servant leadership style may be most suitable.

7. MANAGERIAL IMPLICATIONS

As this study has shown, technical experts as managers may experience some leadership challenges in the absence of leadership development or experience, particularly in the interpersonal domain. Organisations often don't have the luxury of adding resources, and better utilising capabilities within the organisation becomes necessary. Helping technical expert managers to become more efficient leaders will benefit organisations. If organisations can improve leadership efficiency, the organisation won't just be an enjoyable place to work but will also gain a competitive advantage. Leadership is a critical force for leveraging the full capability of the organisation.

Leadership awareness and development for technical experts must start long before they are promoted to managerial level. There are many opportunities for leadership development during the technical expert's education and training. Organisations should encourage learning about leadership models from early education through to tertiary education. Ideally, there must be a healthy balance between theoretical learning and practice-based learning to develop leadership skills because technical expert managers have highlighted the value of practice-based learning. In the workplace, a structure can be implemented to facilitate mentorship, particularly for young leaders. A structure to facilitate mentorship can also be managed by the governing bodies of professions. Mentorship may assist in accelerating experience-based learning from one technical expert manager to another. It is also suggested that governing bodies of professions, like the Actuarial Society of South Africa or the South African Institute of Chartered Accountants, include leadership alongside ethics as a module in professionalism courses. In their leadership development, it may be helpful for technical experts to apply visionary thinking and define their legacy motive much earlier in their careers, as this may considerably influence their leadership approach.

The recruitment process in an organisation also has a role to play. An individual must ideally not be promoted into a managerial position without adequate leadership development. This is a virtuous cycle. If technical experts know that leadership development is a prerequisite for certain promotions, they will seek leadership development to be eligible. When a technical expert needs to be promoted without leadership development, organisations must consider how to support the technical expert to avoid the Peter

Principle. A human resource or organisational development function can support the technical expert as a manager with coaching, leadership training and interpersonal skill development.

Technical expert managers may experience a conflict between meeting shorter-term business objectives and the longer-term growth needs and ambitions of subordinates. Organisations can assist technical expert managers by appropriately structuring their key performance metrics to include an allocation towards subordinates' growth. A leader's success must be tangibly measured by their subordinates' growth and performance. Structuring the technical expert's key performance metrics adequately between technical work and people management responsibilities will assist in managing their limited time capacity optimally.

8. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study had some limitations and future research possibilities. Firstly, most of the participants in the study were from the actuarial profession, which also has a lower female representation. Therefore, future research may be conducted to broaden the scope to include more professions and measure differences between females and males when assessing servant leadership characteristics.

A qualitative study was done using semi-structured interviews. A wider audience of technical expert managers can be reached through a quantitative research study on the specific findings of this qualitative research study. Secondly, several other aspects could influence the efficiency of the leadership of technical expert managers. For example, personality preferences or organisational culture. Research is recommended to differentiate between alternative causes of leadership inefficiency among technical experts as managers.

Extended remote working conditions following the COVID-19 pandemic could have influenced the findings; for example, the challenge that technical expert managers experienced to relate with subordinates may be exaggerated in a remote working environment. Care must be taken before generalising the findings. The study identified potential leadership inefficiencies but did not quantify the impact thereof on the organisation. Research can be done to better understand the impact on and cost to the organisation due to inefficient leadership because of promoting technical experts into managerial positions without adequate support or leadership development.

The finding that technical expert managers may have limited influence higher up in the hierarchy is thought-provoking. This study focused on subordinates of technical expert managers and technical expert managers. A study that includes the managers of technical expert managers may be insightful.

The study concluded that a balance between transformational and servant leadership might be best for technical expert managers, but more guidance is needed. There are a few critiques of transformational leadership (Van Knippenberg & Sitkin, 2013; Alvesson & Kärreman, 2016). Further research can be done to better understand the optimal balance

and application of different leadership styles by technical expert managers in different circumstances.

Comprehensive research is required to better prepare and support technical experts for and within leadership positions. The legacy motive for most technical expert managers went beyond just making a difference on a technical level to having an impact on people. Research on how a reflection on legacy motives earlier in a technical expert manager's career may influence leadership behaviour may be interesting.

9. CONCLUSION

Technical experts as managers offer significant promise to be impactful leaders. Indeed, many emerging technical experts prefer to have a technical expert as a manager, and expert knowledge at the top of organisations offers advantages. However, organisations that want to benefit from improved leadership efficiency must understand the leadership challenges that technical experts as managers may experience and how to assist them to become better leaders. This study aimed to provide insight into these matters.

Servant leadership that focuses on the growth of subordinates may be helpful to technical experts in overcoming many of the leadership challenges they experience, particularly in the interpersonal domain. However, the study concluded that it might not be ideal for a technical expert manager to solely assume a servant leadership style. Rather the answer to efficient leadership for a technical expert lies in a balance between transformational and servant leadership to achieve an optimal balance in focus between the organisational objectives and the growth and empowerment of subordinates.

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DISCLAIMER

The views and opinions expressed in this assignment are those of the author and do not reflect the official policy or position of any affiliated agency of the author.

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