THE EFFECT OF LEADERSHIP STYLE ON SUSTAINABLE PERFORMANCE IN UAE MINISTRY OF INTERIOR: THE ROLE OF WORK ENGAGEMENT AND ORGANIZATIONAL COMMITMENT

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**DOCTOR OF PHILOSOPHY
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A thesis submitted to the Ghazali Shafie Graduate School of Government in fulfilment of the requirements for the Doctor of Philosophy Universiti Utara Malaysia

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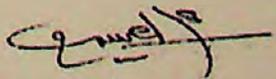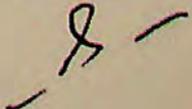*(candidate for the degree
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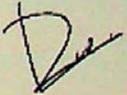*That the said thesis is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:* **DECEMBER 30, 2024**

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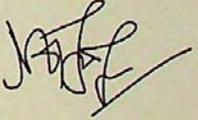
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ABSTRACT

Leadership style plays a critical role in shaping sustainable performance, yet existing studies have predominantly focused on developed countries and the private sector, yielding mixed findings. This study investigates the impact of transformational and transactional leadership on sustainable performance and work engagement within the police forces of the Ministry of Interior Affairs in the United Arab Emirates (UAE). The study also examines the mediating role of work engagement and the moderating effect of organisational commitment between transformational and transactional leaderships and sustainable performance. The study targets middle management within the police forces, collecting 321 responses through an online questionnaire. Data were analysed using Smart Partial Least Square (Smart PLS 4). The findings reveal that both transformational and transactional leadership positively influence sustainable performance and work engagement. Moreover, work engagement fully mediates the effect of transformational leadership on sustainable performance, while it partially mediates the effect of transactional leadership on sustainable performance. Additionally, organisational commitment moderates the impact of both transformational and transactional leadership on sustainable performance. To enhance the validity of the quantitative results, expert interviews were conducted with three experts in organizational studies, who confirmed the statistical findings and provided real world contextual insights. The study underscores the importance of developing a balanced leadership approach that integrates transformational and transactional elements to optimize sustainable performance. Strengthening work engagement and fostering organisational commitment are essential strategies for improving sustainability outcomes within the Ministry of Interior Affairs. Future research should explore sustainable performance in different countries and sectoral contexts to deepen understanding in this field.

Keywords: Leadership Style, Sustainable Performance, Work Engagement, Transformational Leadership, Transactional Leadership

ABSTRAK

Gaya kepimpinan memainkan peranan penting dalam membentuk prestasi mampan, namun kajian-kajian terdahulu kebanyakannya lebih tertumpu kepada negara maju dan sektor swasta, menghasilkan dapatan yang bercampur-campur. Kajian ini meneliti kesan kepimpinan transformasi dan transaksi terhadap prestasi mampan serta keterlibatan kerja dalam pasukan polis Kementerian Hal Ehwal Dalam Negeri di Emiriah Arab Bersatu (UAE). Selain itu, kajian ini juga mengkaji peranan perantaraan keterlibatan kerja dan kesan pemoderasian komitmen organisasi dalam hubungan antara kepimpinan transformasi dan transaksi dengan prestasi mampan. Kajian ini memberi tumpuan kepada peringkat pengurusan pertengahan dalam pasukan polis, dengan mengumpulkan sebanyak 321 respons melalui soal selidik dalam talian. Data dianalisis menggunakan Smart Partial Least Square (Smart PLS 4). Dapatan kajian menunjukkan bahawa kedua-dua kepimpinan transformasi dan transaksi memberi kesan positif terhadap prestasi mampan dan keterlibatan kerja. Tambahan lagi, keterlibatan kerja bertindak sebagai perantara penuh dalam hubungan antara kepimpinan transformasi dan prestasi mampan, manakala ia hanya bertindak sebagai perantara sebahagian dalam hubungan antara kepimpinan transaksi dan prestasi mampan. Selain itu, komitmen organisasi bertindak sebagai pemoderasi dalam kesan kedua-dua gaya kepimpinan transformasi dan transaksi terhadap prestasi mampan. Bagi meningkatkan kesahan dapatan kuantitatif, temu bual pakar telah dijalankan dengan tiga pakar dalam bidang kajian organisasi, yang mengesahkan hasil analisis statistik dan memberikan perspektif kontekstual dunia sebenar. Kajian ini menekankan kepentingan membangunkan pendekatan kepimpinan yang seimbang dengan menggabungkan elemen transformasi dan transaksi bagi mengoptimumkan prestasi mampan. Memperkukuh keterlibatan kerja dan memupuk komitmen organisasi adalah strategi utama untuk meningkatkan hasil kelestarian dalam Kementerian Hal Ehwal Dalam Negeri. Kajian lanjut diperlukan untuk meneroka prestasi mampan dalam konteks negara dan sektor yang berbeza bagi memperdalam pemahaman dalam bidang ini.

Kata Kunci: Gaya Kepimpinan, Prestasi Mampan, Keterlibatan Kerja, Kepimpinan Transformasi, Kepimpinan Transaksi

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LIST OF ABBREVIATIONS

AVE   Average variance extracted

CA   Cronbach's Alpha

CR   Composite reliability

CSR   Corporate Social Responsibility

CWB   Creative Work Behaviour

DV   Dependent Variable

EP   Employee Performance

F^2 Effect size

FL   Factor loading

IT   Information Technology

IV   Independent variable

LM   Lean Manufacturing

MLQ   Multifactor Leadership Questionnaire

OC   Organisational Commitment

OCB   Organisational Citizenship Behaviour

OP   Organisational Performance

PLS   Partial Least Square

R^2 R-square

RBV   Resource Based View

SD   Sustainable Development

SDGs   Sustainable Development Goals

SET   Social Exchange Theory

SMEs   Small and Medium Enterprises

SP   Sustainable Performance

SPSS   Statistical Package for Social Sciences

TL   Transformational leadership

TSL   Transactional leadership

UAE   United Arab Emirates

UN   United Nations

WE   Work engagement

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The development of sustainable performance (SP) has become an essential focus for organisations in the contemporary business environment, driven by the increasing demands of customers, the general public, and regulatory bodies (Zacher et al., 2024). Organisations that are recognized as sustainable are more attractive to consumers, as they are perceived to be more responsible, forward-thinking, and aligned with broader societal values (Steinhart, 2024). SP at the organisational level involves more than merely financial success; it requires the integration of environmental, social, and economic dimensions into the core of business operations (Harsono et al., 2024). Sustainable organisations are not only better equipped to meet current demands but are also more adaptable to future challenges, positioning themselves as leaders in both innovation and responsibility (Lu, 2024).

From an environmental perspective, SP encompasses efforts to minimize harmful emissions, reduce waste, and enhance the organisation's ability to innovate with environmentally friendly technologies (Adubofour et al., 2024). By improving their capacity for green innovation, organisations can not only comply with environmental regulations but also meet the growing consumer demand for products and services that

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are environmentally responsible (Mishra et al., 2024). This focus on environmental stewardship helps organisations maintain a competitive advantage in the long term by demonstrating a commitment to sustainability, which is increasingly seen as a key value by consumers and investors alike (Mohammed, 2023).

Socially, SP reflects the organisation's commitment to ethical practices that benefit not only the environment but also its employees, customers, and the broader community (Yu et al., 2023). This includes promoting a fair and inclusive work environment, respecting human rights, and contributing positively to society (Khanam et al., 2023). Such social responsibility can enhance the organisation's reputation and build stronger relationships with stakeholders, all of which contribute to long-term resilience and success (Bag et al., 2024). Economically, SP ensures that organisations are not only profitable but also resilient in the face of market fluctuations. By prioritizing sustainable business practices, organisations are better positioned to achieve long-term growth and stability, avoiding the risks associated with short-term profit-driven strategies (Lewandowska et al., 2023).

On an individual level, SP plays a crucial role in motivating employees. Organisations that embrace sustainability often inspire their workforce by aligning corporate values with employees' personal beliefs about ethical responsibility and social contribution (Eyo-Udo et al., 2024). Employees who perceive their organisation as being committed to sustainability are often morally motivated to work towards achieving organisational goals, resulting in higher levels of engagement and job satisfaction (JS) (Ahsan, 2024). This alignment between individual and organisational values strengthens the organisation's internal culture and improves overall performance (Umair et al., 2023).

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At a national level, sustainable organisations contribute significantly to broader governmental objectives, such as the "Sustainable Development Goals" (SDGs) set by the United Nations for 2030 (Yumnam et al., 2024). Governments around the world, including in the United Arab Emirates (UAE) and other countries, are encouraging businesses to adopt sustainable practices as part of their national strategies to meet these global goals (Yumnam et al., 2024). By fostering SP, organisations not only support national and international environmental and social targets but also position themselves as key contributors to global sustainability efforts (Bilderback, 2024). Therefore, the commitment to SP at the organisational, individual, and national levels is not only desirable but necessary for the future of business and society (Lozano & Barreiro-Gen, 2023).

Despite the growing recognition of the importance of SP for organisations, significant variation exists in the level of compliance and implementation of sustainable practices across different organisations and countries (Siregar et al., 2024). This variation can be attributed to multiple factors, including the regulatory environment, organisational culture, leadership, and the socio-economic context in which organisations operate (AL-Janabi et al., 2024). Moreover, while the concept of SP has garnered considerable attention, the academic literature investigating SP at the organisational level remains relatively limited. Studies that have focused on this topic often neglect critical dimensions, and there is a notable gap in comprehensive analyses of how organisations across different sectors and regions implement SP strategies (Bose & Khan, 2022; Caiado et al., 2018).

Most of the existing literature on SP is concentrated on private business organisations, reflecting a bias toward sectors with more prominent exposure to market competition and consumer-driven sustainability demands. In these studies, SP is frequently linked to corporate social responsibility (CSR), environmental initiatives, and economic competitiveness (Singh et al., 2023; Trizotto et al., 2024). However, there is a striking lack of research on SP within the public sector, where the dynamics of leadership, stakeholder engagement, and performance evaluation differ significantly from those of private enterprises (Alraja et al., 2022; Disli et al., 2022). The limited focus on the public sector presents a substantial gap in the literature, as public institutions play a critical role in national sustainability agendas, particularly in terms of policy implementation and governance structures that promote SP (Flamini et al., 2023).

Another significant gap in the literature is the geographical focus of previous studies. The majority of research on SP has been conducted in developed countries, where regulatory frameworks, resources, and public awareness regarding sustainability are more advanced (Supriyanto et al., 2024). These studies often provide valuable insights into best practices for sustainability but are not easily generalizable to emerging economies, where the context differs significantly (Trizotto et al., 2024). In emerging economies, such as the UAE, attention to SP remains limited, despite the country's increasing emphasis on achieving sustainability goals in line with the United Nations' SDGs (Yumnam et al., 2024). As a rapidly developing nation with ambitious sustainability initiatives, the UAE provides a unique context in which SP deserves more scholarly attention, especially in terms of understanding the drivers, barriers, and outcomes of sustainability efforts at the organisational level (Gulseven & Ahmed, 2022).

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To achieve SP, leadership plays a crucial role in guiding organisations through the complexities of integrating sustainability into their core practices (Dai et al., 2022; Foo et al., 2021; Suriyankietkaew, 2023). Leadership is a determining factor in whether an organisation adopts sustainable practices, how these practices are implemented, and the level of employee and stakeholder engagement in the sustainability agenda. While many leadership styles have been explored in the context of sustainable performance (OP), recent styles such as transactional leadership (TSL) and transformational leadership (TL) have been tested less frequently in the public sector of developing countries (Kafetzopoulos & Gotzamani, 2022). These leadership styles are particularly relevant because they address both the operational and motivational aspects of leading an organisation toward sustainability (Udin et al., 2022).

TSL, with its focus on clear roles, rewards, and performance management, can be effective in driving compliance with sustainability policies, particularly in hierarchical and bureaucratic public sector organisations (Dai et al., 2022). However, TL, which emphasizes vision, inspiration, and change, is increasingly seen as vital for fostering a culture of innovation and long-term commitment to sustainability (Burawat, 2019). The limited application of these leadership styles in the public sector of emerging economies highlights the need for further research to understand their impact on SP (Behravesh et al., 2022). Investigating how these leadership styles influence SP in the public sector, particularly in the UAE, could provide valuable insights into the development of leadership frameworks that support sustainability across a variety of organisational contexts (Bakri et al., 2023; Faqera & Manaf, 2024).

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In light of the increasing complexity of working environment, the work engagement (WE) and organisational commitment (OC) are decreasing. Research indicates that employee engagement remains critically low worldwide, with studies by Rakatu et al. (2022); Yustrilia et al. (2022) drawing on the Gallup report, highlighting that only 15% of employees are actively engaged in their work. This lack of engagement poses a significant financial challenge for organisations, increasing operational costs by approximately $350 billion annually, as reported by Barreiro and Treglown (2020). The substantial financial impact of disengagement has spurred continued academic interest in Work Engagement (WE) and its effects on organisational performance and outcomes. Studies like those by Albrecht et al., (2021) Lartey (2021) have sought to deepen the understanding of WE, emphasizing its potential to enhance organisational productivity, reduce turnover, and improve employee well-being. As WE is closely tied to positive organisational outcomes, its role in shaping factors such as operational efficiency, employee retention, and overall financial performance remains a focal point of contemporary organisational research. Consequently, understanding and fostering WE has become essential for organisations aiming to mitigate costs and maximize long-term success.

Voluntary employee turnover is having a substantial impact on organisations as employees are increasingly opting to leave their current positions. A study conducted in the US found that the average duration of employment within a single organisation has decreased to four years (Shulga & Busser, 2019). The UAE also experiences a similar issue, with an annual voluntary turnover rate of 5% among public sector employees. A significant number of the employees leaving their positions are from the "Ministry of Interior Affairs" (AlHashmi et al., 2019). This phenomenon requires

further investigation in order to comprehend its fundamental causes and implications. This study aims to examine the impact of leadership styles, specifically TL and TSL, on WE and SP in the "Ministry of Interior Affairs" in the UAE. This study aims to examine the impact of leadership styles on WE and SP in a crucial governmental department. This study aims to investigate how OC moderates the relationship between leadership style and SP. It is crucial to comprehend the influence of OC on the relationship between leadership and SP. This understanding is necessary for the development of effective strategies aimed at improving the WE and SP in the "Ministry of Interior Affairs" in the UAE.

1.2   Problem Statement

This study examines the SP in the UAE with the public sector and in particular in the Ministry of Interior. This is because most of previous studies were conducted on developed countries (Kafetzopoulos & Gotzamani, 2022; Manz et al., 2011; Overstreet et al., 2013; Pantouvakis & Vlachos, 2020; Pellicano et al., 2014) or emerging economies (Chen et al., 2014; Dai et al., 2022; Foo et al., 2021; Jiang et al., 2017; Nor-Aishah et al., 2020; Ojo & Fauzi, 2020; Pham & Kim, 2019), and developing countries such as Pakistan (Hu et al., 2022; A. Mansoor et al., 2022; Sarfraz et al., 2022; Shaukat et al., 2022). In addition, most of previous studies were conducted on manufacturing or private sector in general (Burawat, 2019; Chen et al., 2014; Fatoki, 2020; Foo et al., 2021; Iqbal et al., 2020; Kowo & Akinbola, 2019; Mansoor et al., 2022; Manz et al., 2011; Nor-Aishah et al., 2020; Sarfraz et al., 2022; Sulasmi et al., 2020).

There is a lack of studies that have examined the effect of TL and TSL on SP. This study examines the effect of leadership style which include transformational and

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transactional because most of prior literature focused on sustainable leadership and its effect on SP (Fatoki, 2021; Iqbal et al., 2020; Iqbal & Ahmad, 2021; Sulasmi et al., 2020) shared leadership (Manz et al., 2011), entrepreneurial leadership (Nor-Aishah et al., 2020), ethical leadership (Fatoki, 2020), environmental specific servant leadership (Tuan, 2021), digital leadership (Khaw et al., 2022; Sarfraz et al., 2022).

The study also examines the mediating role of WE and the moderating role of OC because prior studies examined these variable in limited studies. Previous studies examined the moderating role of shared values (Manz et al., 2011) organisational innovativeness and operational performance (Overstreet et al., 2013), green mindfulness and green self-efficacy (Chen et al., 2014), OCB (Jiang et al., 2017), lean manufacturing (Burawat, 2019), leadership competences (Pham & Kim, 2019), engagement in green IT practices (Ojo & Fauzi, 2020), psychological safety, structural empowerment, and organisational learning (Iqbal et al., 2020; Iqbal & Ahmad, 2021; Sulasmi et al., 2020), entrepreneurial bricolage (Nor-Aishah et al., 2020), organisational culture (Pantouvakis & Vlachos, 2020), green climate and green crafting (Tuan, 2021).

UAE are paying attention to enhance the SP of all organisations in private and public sector with specific focus on the public sector (Renukappa et al., 2017). However, there are several issues that have the potential to affect the SP of public sector organisations. Among which the use of recent leadership style. According to TL and TSL, leaders can affect the behaviour of employees to achieve the organisational goals. The transactional perspective links the reward to performance while the TL focus on developing the skills and capabilities as well as the development of employees to

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achieve dual goals at the individual and the organisational level (Avolio et al., 1999; Bass, 1991; Kafetzopoulos & Gotzamani, 2022).

WE is a critical factor for improving the SP. A report by Gallup (2022) indicated that 62% of employees in UAE are not engaged (not motivated and tend to fulfil the basic requirement of job description only) while those who are totally disengaged accounted to 8% of the workforce and this costing the country averagely an amount of $8.6-$10.3 billion annually due to loss of time and productivity (Gallup, 2022). From global perspective, only 15% of employees are engaged and this costing the global economy more than $350 billion yearly (Barreiro & Treglown, 2020). On the other hand, there is limited studies of WE and in particular in the context of public sector (Byrne & MacDonagh, 2017). Studies also recommended for future work to examine the WE (Fletcher et al., 2020). Few studies also investigated the WE as a mediating variable. For instance, engagement in green IT practices mediated leadership commitment on environmental IT performance (Ojo & Fauzi, 2020). WE mediated the effect of TSL on innovative work behaviour (Udin et al., 2022). The effect of green motivation on green creative performance was mediated by green creative process engagement (Hu et al., 2022).

In addition to WE, the OC is a critical factor. Worldwide, the number of employees looking for new job increased to 51% (Gallup, 2023). The percentage increases to 56% in UAE in 2022 (The National News, 2022). According to "Social Exchange theory (SET)", OC is based on the reciprocal relationship between employees and the organisation. Employees develop commitment when they perceive that the organisation provides valuable rewards and support in exchange for their

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contributions, such as fair compensation, career development opportunities, and a positive work environment (Ahmed et al., 2018; Liu & Deng, 2011; Meng et al., 2019). Few studies tested the moderating role of OC in the context of SP. For instance, OC mediated the effect of TL and TSL on SP (Dai et al., 2022).

The primary objective of this study is to comprehensively evaluate the impact of TL and TSL on WE and SP. This study aims to investigate the mediating role of WE and the moderating impact of OC in a specific organisational context. The research aims to develop a framework for decision-makers in the "Ministry of Interior Affairs" in the UAE. This framework aims to improve leadership styles and promote WE, OC, and SP within the organisation. This approach aims to significantly enhance the effectiveness and success of the "Ministry of Interior Affairs". This research aims to examine the connections between leadership styles, WE, OC, and SP. The goal is to provide practical insights and evidence-based recommendations that leaders and policymakers can use to improve the work environment. The ultimate goal is to create a workplace environment in the "Ministry of Interior Affairs" that promotes employee retention, professional development, and SP, leading to the organisation's overall success.

1.3   Research Questions

This study deploys SP as the ultimate dependent variable. The WE is deployed also as a dependent variable and a mediator. OC is used as a moderator while TL and TSL are used as independent variables. Based on the issue discussed in the above section, the study aims to answer the following questions.

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1. What is the effect of leadership style (TL and TSL) on WE and SP?

2. What is the effect of WE on SP?

3. Does WE mediate the effect of leadership style (TL and TSL) on SP?

4. Does OC moderate the effect of leadership style (TL and TSL) on SP?

1.4   Research Objectives

The general objective of this study is to identify the effect of leadership style on WE and SP as well as the mediating role of WE and the moderating role of OC. Specifically, this study aims to achieve the following objectives:

1. To analyse the impact of leadership style (TL and TSL) on WE and SP.

2. To evaluate the effect of WE on SP.

3. To assess the mediating role of WE between leadership style (TL and TSL) and SP.

4. To investigate the moderating role of OC between leadership style (TL and TSL) and SP.

1.5   Significance of the Study

The significance of this study can be divided into themes. The first is the theoretical significance. This study is significant because it examines the SP of public organisation in emerging economies. Most of previous studies examined SP in developed countries. The study is also significant because it examines the recent leadership style such as the TL and TSL on WE and SP. The use of TL leadership in the context of public sector is limited due to the rigidity of the sector. In addition, most of previous studies focused on different style of leadership such as sustainable

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leadership, shared leadership and ethical leadership. This study contributes by examining and comparing both style of leaderships (TL and TSL) in public sector of a country such as UAE which is considered as an emerging economy.

This study not only aims to achieve its core research goals but also contributes significantly to the current body of literature by conducting a thorough investigation into the mediating role of WE and the moderating impact of OC. It is important to note that there is a limited amount of research that has explored the complex dynamics of WE, especially in respect to its role as a mediator in the context of public sectors in developing countries. The research into the moderating influence of OC on SP has been somewhat neglected, particularly in the context of the public sector in developing nations. The lack of empirical research examining these characteristics highlights the importance of this study's contributions to the existing body of knowledge. This study contributes to the current knowledge by providing insights into the complex relationship between WE as a mediator and OC as a moderator in the context of SP. Through this research endeavour, the aim is to enhance comprehension of these pivotal aspects, specifically within the distinctive framework of the public sector in developing nations. Consequently, this contributes to the advancement of the shared knowledge in this significant area of inquiry.

The second theme is the practical significance. From practical perspective, this study contributes to the policy makers in UAE as well as the ministry of interior and the citizens of UAE. This is because it provides decision makers with insight to improve the leadership style and achieve better SP and WE of employees. Having higher level of WE can improve the productivity of the ministry and the police forces in the country

which can be reflected on the satisfaction of citizens. The study contributes to the enhancement in leadership style, WE, and OC. Enhancing the WE and the OC of the employees can reduce the turnover of employees which can also have important implication for the ministry of interior. Therefore, the improvement in these variables will enhance the police force in UAE. Further, the study contributes to the agenda of UAE to achieve the sustainability development goals of 2030. It also contributes to the vision of UAE in 2030 to be a significant safety hub in the world.

1.6   Scope of the Study

This study is conducted in the UAE and specifically focuses on the "Ministry of Interior Affairs". The research includes all headquarters and sub-headquarters across the various emirates of the UAE, ensuring comprehensive coverage of the Ministry's organisational structure throughout the country. By including both central and regional offices, the study seeks to provide a holistic understanding of leadership practices and SP across different levels of the Ministry.

The study adopts a quantitative research methodology, collecting data through the use of a structured questionnaire. This approach allows for the collection of standardized data from a large sample, enabling statistical analysis of the relationships between leadership styles, OC, WE, and SP. The quantitative nature of the study ensures that the findings are generalizable and that patterns of association between the variables can be rigorously tested. The use of a questionnaire as a data collection tool is appropriate for examining perceptions and attitudes related to leadership styles, WE, and OC, as it facilitates the efficient gathering of information from a diverse group of respondents.

The study is theoretically grounded in the TL and TSL theory, as well as SET. TL emphasizes the development and empowerment of employees to achieve both individual and organisational goals, while TSL focuses on a reward-based system that links performance to specific incentives. SET, which underpins the study's examination of OC, posits that employees develop a sense of commitment when they perceive that the organisation reciprocates their efforts with valuable rewards and support. These theoretical frameworks are essential for exploring how leadership styles influence employee engagement and commitment, and ultimately, the SP of the Ministry.

The primary respondents in this study are middle managers and supervisors within the "Ministry of Interior Affairs". The selection of this group is based on their critical role in implementing leadership practices and their in-depth knowledge of OC, WE, and SP. Middle managers and supervisors are key actors in the decision-making process and play a pivotal role in translating strategic directives into operational practices. Their position in the organisational hierarchy allows them to provide informed perspectives on leadership styles, employee engagement, and the overall sustainability of the organisation. The selection of this management level is consistent with the recommendations of scholars such as Gold et al. (2001), who argue that individuals involved in decision-making processes possess valuable insights into organisational practices and are better equipped to provide reliable data on leadership and performance.

Furthermore, middle managers serve as a crucial link between senior leadership and operational staff, making them instrumental in shaping the organisational culture and

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driving the Ministry's sustainability initiatives. Their understanding of both strategic objectives and day-to-day operations allows them to offer nuanced insights into how leadership styles influence SP, particularly in a public sector organisation like the "Ministry of Interior Affairs". Given their proximity to both leadership and employees, middle managers are well-positioned to assess the impact of leadership on WE and OC, as well as the broader implications for SP.

1.7   Definition of Terms

This section provides detailed explanations of the key terms utilised in this study, encompassing both theoretical and practical definitions. By clarifying these concepts, the study aims to establish a common understanding among readers and participants, thereby enhancing clarity and rigour in the research. The theoretical definitions outline the fundamental principles of each term, forming a conceptual framework for the study. In contrast, the practical definitions demonstrate how these concepts are applied within the context of the research. This dual approach ensures that the study is grounded in a well-defined conceptual framework, facilitating precise communication and analysis throughout the research process. The specific variables examined in this study are defined in the following sub-section.

Leadership Style

Bhargavi and Shehhi (2016) define leadership style as "a combination of distinct attributes, characteristics, and behaviours that leaders use when interacting with their subordinates". Leadership style, as used in this study, refers to an individual's preferred method of leading a group or organisation toward its stated goals via interactions with

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subordinates and other stakeholders. This concept explores the leader's communication methods, decision-making process, motivation techniques, and overall leadership behavior. It offers a framework for comprehending how leadership impacts the dynamics and outcomes of an organisation.

Transformational Leadership (TL)

TL is a theoretical framework developed by Burns (1978) that describes "a dynamic and synergistic process in which leaders and followers mutually enhance each other's ethical conduct and motivation to achieve higher levels of performance". This study focuses on TL, which refers to the behaviours displayed by leaders when influencing and inspiring their followers during a transformative process. TL is primarily focused on fostering the growth and development of individuals within the organisation. This leadership style surpasses the conventional perception of a leader solely as someone who assigns tasks and makes decisions. It entails a profound involvement with followers, motivating them to achieve their utmost capabilities. In this leadership framework, the leader assumes the roles of a role model, mentor, and catalyst for facilitating positive change. TL aligns with the organisation's overarching goals. While fostering personal development, it also directs the combined efforts of a team or organisation towards the attainment of common goals. This leadership style aims to establish a mutually beneficial connection between personal growth and organisational achievement, acknowledging that the overall success of the organisation is dependent on the flourishing of individuals. TL is a potent catalyst for enhancing organisational effectiveness and attaining long-term excellence. TL is characterized by leaders who motivate and enable their followers, creating an environment conducive to innovation,

collaboration, and ethical conduct, while also working towards the organisation's mission and vision.

Transactional Leadership (TSL)

TSL is a leadership style described by Burns (1978) that involves "a mutually beneficial relationship between a leader and their followers". In this style, the leader uses a system of rewards and punishments to exert influence over their team. This study examines the specific aspects of TSL, with a particular emphasis on the leader's behaviours related to acknowledging and reinforcing outstanding accomplishments, as well as addressing subpar performance within the workforce. TSL involves a leader who acts as a conductor, overseeing the operations of the organisation and facilitating a structured exchange between themselves and their followers. This interaction entails establishing explicit expectations, providing incentives for meeting or exceeding these expectations, and implementing consequences for failing to meet them. This leadership style is based on a framework of providing rewards based on performance and implementing corrective measures. This research examines the leader's capacity to recognize and enhance outstanding achievements within the team. Effective TSL is defined by the leader's ability to identify exceptional contributions and take proactive measures to reward them. This not only motivates employees but also fosters a culture of excellence within the organisation. TSL does not ignore or overlook instances of subpar performance. It pertains to the leader's ability to address and rectify inadequate performance promptly and constructively. Possible interventions include implementing corrective actions, providing coaching, or employing other measures to assist employees in meeting the established performance standards. TSL contributes

to achieving organisational goals and fostering a work environment focused on producing desired outcomes.

Work Engagement (WE)

WE refer to a psychological state in the workplace that is described as good and gratifying. Adekola (2010) defines WE as a state of mind characterised by vigour, determination, and absorption. In the context of this research, the term "WE" refers to the cognitive and affective state in which workers feel a sense of positivity, fulfilment, and vitality when they are fully absorbed and enthusiastic about their job.

Organisational Commitment (OC)

OC refers to the emotional connection, identification, and participation of employees with the organisation, as defined by Meyer and Allen (1993). In the present research, the term "OC" pertains to the psychological affiliation that workers establish with their organisation, which manifests as an emotional attachment and active involvement.

Sustainable Performance (SP)

Sustainable Performance (SP) refers to "the integration of economic, environmental, and social activities inside enterprises" (Oyelakin & Johl, 2022). Within the parameters of this study, SP refers to the capacity of an organisation to achieve its aims and goals in a way that is economically, socially, and ecologically responsible and viable in the long run.

1.8 Structure of the Study

This study is organised into five chapters that collectively address the essential components of the research process. Chapter One introduces the research topic, articulates the problem statement, and outlines the research objectives and questions, along with the significance and scope of the study. Chapter Two critically reviews existing literature and theoretical frameworks related to the subject, identifying gaps that this study aims to fill. Chapter Three describes the research methodology, including the design, sample selection, data collection techniques, and analytical tools used for data analysis. Chapter Four presents the data analysis and findings, interpreting the results in relation to the research questions and objectives. Finally, Chapter Five discusses the findings in the context of existing literature, explores their theoretical and practical implications, acknowledges the study's limitations, and provides recommendations for future research.

Chapter 1: Introduction

This chapter initiates the introductory section of this study, whereby it explains and discusses the contextual information that serves as the foundation of this study's undertaking. Furthermore, it explores the fundamental issue that drives the study forward. This chapter provides a more comprehensive explanation of the study objectives and research questions that serves as the guiding principles for this research. In addition to examining these crucial elements, the chapter also considers the importance and extent of this research, explaining its wider implications. In addition, the study aims to enhance understanding of the terms that are used in this study by providing precise definitions of crucial terminology relevant to the study. Moreover,

an overview of the organisational structure of the forthcoming chapters that constitute this research endeavour.

Chapter 2: Literature Review

The primary purpose of this second chapter is to establish a crucial connection between the theoretical underpinnings of the study and the forthcoming empirical investigation. In this chapter, the study conducted a comprehensive review of the extensive body of prior research that are related to the variables of this study. This includes the review of SP, leadership style, WE, and OC. The present chapter is devoted to an extensive examination of the theoretical framework, which functions as the foundation upon which the research is built. Precisely, the chapter reviews the TL theory, TSL theory and social exchange theory (SET). In addition, the study engage in a thorough examination and integration of a wide range of previous studies, extracting valuable insights and findings to guide this research. Based on the review of existing studies, the study identifies the gaps in the literature and develops the conceptual framework, providing a detailed explanation of the relationships between the variables of this research. In addition, the study developed the hypotheses that are designed to direct the empirical investigation and enhance the advancement of current knowledge within the specific area of academic research.

Chapter 3: Research Methodology

Within the third chapter, the study provides the research methodology which includes the research design and approach that forms the fundamental basis of this study. This chapter covers a range of components, which include the research design of this study

followed by the research process which outlines the systematic progression and stages involved in the research process, beginning with the initial idea of identifying the problem and developing the research questions and objective and concluding with the collection, analysis, and interpretation of data. The population of this study is discussed in the third chapter followed by the sampling selection, size, and techniques. Next, the instrument of this study is discussed as well as the process of validation and pilot testing. The process of data collection is provided in this chapter. The data analysis is discussed in this study. "Statistical Package for Social Sciences (SPSS)" version 28.0 and "Smart Partial Least Square (Smart PLS 4)" are used to conduct a comprehensive and rigorous analysis of the data.

Chapter 4: Data Analysis and Findings

This chapter presents the findings of this study. The descriptive statistics of respondents and variables are discussed followed by the evaluation of structural equation modeling using smart PLS. This includes the evaluation of measurement model and structural model. The measurement model is evaluated based on factor loading, reliabilities and validities. Validity includes the convergent validity and the discriminant validity while the structural model is evaluated based on the R-square, F-square, and path coefficient. The direct effect of TL and TSL on SP and WE is examined as well as the mediating role of WE and the moderating role of OC. Based on the analysis, the chapter presents the results of hypotheses testing.

Chapter 5: Discussion and Conclusion

This chapter discusses the findings of this study. The expert validation of the findings are discussed. The result of hypotheses testing are discussed to fulfil the objectives of this study. In addition, justification of the findings in the context of police forces in the ministry of interior affair is provided. A comparison with previous studies is conducted. Next, the chapter highlights and discusses the implications of this study which include the theoretical and practical implications. The limitations of this study are discussed followed by the direction of future work. Last section presents the concluding remarks of this study.

CHAPTER 2

LITERATURE REVIEW

2.1   Introduction

In this chapter, an extensive examination of the existing literature is conducted, specifically focusing on SP, leadership styles, WE, and OC. The chapter starts by elaborating the theoretical framework of this study. The focus is on TL theory, TSL theory and SET theory. These theories can provide a broad outline of the interrelationships among the variables of this study. The SP and its definitions as well as components of SP are discussed in this chapter. WE along with its definition and development are discussed. Next, the development of OC and its definitions are elaborated followed by a comprehensive literature review of the existing studies in the literature to understand the findings of prior literature and identify gaps. Furthermore, this chapter explains the conceptual framework of this study, providing a visual representation of the relationships between the key variables. Within this framework, the hypotheses of the study are formulated, outlining the anticipated relationships and effects to be tested empirically.

2.2   Theoretical Framework

The theoretical framework of a research study plays a crucial role in providing a foundational structure for the whole research endeavour. It fulfils a diverse range of functions, including the clarification of fundamental concepts, the inclusion of pertinent theories, and the combination of models that together guide the research

process. Furthermore, it expands its impact on the examination and explanation of findings, offering a structured framework for understanding the complex interrelationships among variables and aiding researchers in extracting significant insights from their findings (Lederman & Lederman, 2015).

The theoretical framework has significant importance within the scope of this specific research. The research study undertakes a comprehensive examination and analysis of three fundamental theories: TL, TSL, and the SET. The aforementioned theories are not only abstract concepts but rather function as cognitive instruments that shape the path and objective of the research. The concept of TL was first proposed by James MacGregor Burns, and it centres on the notion that leaders possess the ability to inspire and uplift their followers, hence enhancing their levels of motivation and ethical standards (Lawrason et al., 2023). Transformational leaders are renowned for their capacity to facilitate significant and favourable transformation inside their organisations by developing a climate of growth and advancement among their team members (Ytterstad & Olaisen, 2023).

TSL serves as a complementary theory to TL, placing emphasis on the utilisation of incentives and punishments to motivate and effectively manage followers (Cahyadi, 2023). Leaders who choose this strategy create explicit objectives and implement a well-defined system of incentives for exemplary performance and consequences for poor achievement (Abbas & Ali, 2023). The SET is a theoretical framework that explores the complex nature of social interactions, placing significant emphasis on the concept of reciprocity (Martinez & Leija, 2023). The theory suggests that people participate in interactions with others, anticipating the receipt of something valuable

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in exchange (Alabdali et al., 2024). Within the organisational framework, workers have the propensity to allocate their endeavours and contributions with the expectation of obtaining benefits, including both physical and intangible forms, from their leaders and the organisation (Susanto et al., 2023).

This research aims to get an in-depth understanding of the complex interconnections between leadership styles, WE, OC, and SP by including these three theories in the theoretical framework. The all-encompassing framework not only provides guidance for the research but also serves as a perspective through which the study's results will be analysed, facilitating a more profound understanding of the phenomena being investigated. Figure 2.1 shows the conceptualization of the theoretical framework.
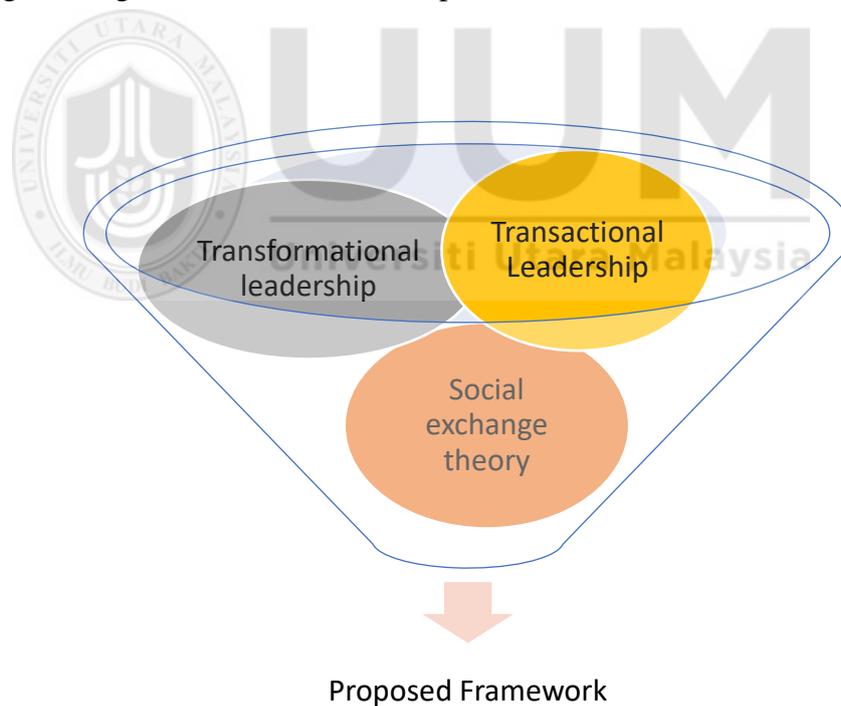
Figure 2. 1: Theoretical Framework (Self-developed)

2.2.1 Transformational leadership

The historical development of leadership theories is characterised by a diverse range of perspectives, beginning with the Great Man theory and then advancing to include the Trait theory, Situational theory, and Charismatic Leadership theory (Spector, 2016). Nevertheless, there has been a lack of focus on the implementation of newly developed theories within the public sector of emerging nations. The current body of literature includes a range of theories that examine different leadership styles, with TL and TSL being particularly notable within this context (Dai et al., 2022). This section explores the principles and ramifications of TL.

The concept of TL was initially introduced by James Downton in 1973, as highlighted by Fernández and Quintero (2017). However, it was the work of historian and political scientist James McGregor Burns in 1978 that solidified its importance, establishing TL as a foundational and pioneering concept in the study of leadership. Burns' contributions not only expanded on Downton's initial ideas but also positioned TL as a critical framework for understanding how leaders inspire and motivate followers toward significant organisational change. Burns (1978) presented a comprehensive analysis of the idea of TL in his influential publication, "Leadership." This seminal work significantly influenced the development and implementation of leadership strategies and policies in the long run. Burns' TL theory is based on the premise that successful leadership should prioritise the process of organisational transformation, hence enhancing productivity and adaptability in response to the unique difficulties posed by the post-modern period (Andrews, 2018).

After Burns conducted a significant study in 1978, the concept of TL gained attention from scholars. This led to an increase in research efforts aimed at enhancing our comprehension of this influential leadership paradigm. Initially, this scholarly inquiry focused primarily on politics and the military, as leadership has a significant influence in these domains. Prominent figures in the field of TL, such as Avolio and Bass (1988), Bass (2000, 1999), and the collaborative work of Bass and Avolio (2013), have made significant contributions to the study of TL. The mentioned researchers played important roles in advancing the understanding of the various aspects of TL. Their scholarly pursuits yielded valuable insights into the theoretical foundations and practical implementations of this leadership paradigm. Their contributions not only expanded the theoretical boundaries but also significantly influenced the evolution of the core principles of TL (Yahaya & Ebrahim, 2016).

Avolio and Bass (1988) extensively examined the complex mechanisms of TL, specifically focusing on the charismatic and inspirational qualities that leaders can utilize to motivate and elevate their followers. Bass (1990, 1999, 2000) extensively examined TL, highlighting the importance of leaders who inspire, intellectually stimulate, and provide individualized consideration to their followers. Bass and Avolio (2013) contributed to the discourse on TL by providing a comprehensive framework that explores its multifaceted nature. This framework has offered scholars and practitioners a comprehensive guide to comprehend and implement TL in different organisational settings. The contributions of Avolio, Bass, and their collaboration have significantly advanced the study of TL, paving the way for a more comprehensive and intricate examination of this impactful leadership style. Their contributions inspire and guide researchers, educators, and leaders globally, as they aim to utilize leadership's

transformative power for the improvement of organisations and society (Eaton et al., 2024; Martinez & Leija, 2023; Rockstuhl et al., 2023).

The publication of Bass (1999; 2000) played a significant role in the advancement of TL theory during the mid-1980s. His contributions expanded the scope of TL theory to include emotional aspects and the fundamental origins of charisma. Bass's contributions during this period significantly enhanced the understanding of TL, particularly by illuminating the complex relationship between leadership, emotions, and the charismatic qualities exhibited by leaders. Bass made a significant contribution by acknowledging the emotional aspect in TL. Bass (1999) highlighted that effective transformational leaders inspire their followers not only through rational methods but also by accessing their emotional resources. By establishing emotional connections with their teams, these leaders develop trust, loyalty, and commitment that surpass conventional boundaries of leadership (Cahyadi, 2023; Ha & Moon, 2023; Martinez & Leija, 2023).

Additionally, Bass's research during this timeframe shed light on the fundamental origins of charisma in leaders. The author investigated the origins of charismatic leadership and found that it is not solely an innate quality but can be developed through various factors such as vision, communication abilities, and the capacity to inspire a sense of purpose and significance (Rockstuhl et al., 2023; Susanto et al., 2023). Bass and Avolio (2013) confirmed these important insights. Their research highlighted that although charisma undoubtedly has a substantial impact on TL, it is not the exclusive factor influencing success. Effective TL encompasses multiple dimensions, such as "intellectual stimulation, individualized consideration, and inspirational motivation".

These dimensions work together to foster the overall growth of followers and achieve organisational objectives.

TL is a contemporary management paradigm within the realm of leadership that sets itself apart from TSL. There are notable differences between TL and TSL regarding their respective approaches to the interaction between leaders and subordinates. In the context of TL, those occupying leadership positions assume the duty of providing guidance and acting when deemed appropriate to realign the organisational directions (Haliday, 2018). Significantly, TL lays a paramount emphasis on the transformation of people into leaders. Organisations place significant emphasis on ethical conduct, core values, established standards, and long-term objectives. Furthermore, TL encompasses a wide array of strategies, such as the use of incentives, motivating tactics, addressing the needs of followers, and the implementation of respectful engagement approaches.

TL is characterised by the ability of leaders to inspire and motivate their followers via their charismatic qualities and their ability to articulate a compelling vision for the future. According to Hanaysha et al. (2012), transformational leaders possess the ability to identify and use the untapped capabilities of their followers and workers, hence augmenting their ability to successfully complete both present and future assignments. TL is a comprehensive methodology that encompasses deliberate and nuanced strategies aimed at exerting influence on subordinates, operating at both the individual and organisational spheres (Schein, 2017; Tohidi & Jabbari, 2012). Transformational leaders are essential in initiating positive changes within an organisation, as their roles are closely intertwined with administrative staff and

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members. This integration is crucial in facilitating the necessary shifts that lead to fundamental improvements in productivity and work methods (Sulamuthu & Yuso, 2018). Bass and Avolio (2013) emphasised the significance of TL in driving people to beyond their original performance expectations. This leadership style enhances employee effectiveness by using persuasive strategies to foster a strong sense of commitment towards the organisation's vision and objectives.

Within the realm of TL, leaders place great emphasis on the profound importance of the future, actively striving to delve into its possibilities and optimise its potential. From this particular standpoint, the concept of TL exhibits distinct characteristics like as perpetual motion, a propensity to question established norms, and an unyielding dedication to embracing innovation and unfamiliarity. According to Burns, the TL method is seen as very successful, since it prioritises obtaining ultimate outcomes above self-interest (De Clercq & Belausteguigoitia, 2017). TL is contingent upon three key factors: the degree of autonomy granted to an institution in determining its own trajectory, the presence of effective leadership abilities, and a steadfast dedication to the proper implementation of transformative behavioural patterns. In addition, the extent of an organisation's culture plays a pivotal part in facilitating the leader's successful implementation of these practises (Bass & Avolio, 2013).

Bass's stance on TL diverges notably from TSL, as he perceives TL as a dynamic and advancing phenomenon rather than a sequence of transactions or reciprocal acts (Bader et al., 2023). Furthermore, there has been a comprehensive investigation of the concept of TL, which is seen as a complex construct consisting of four separate but interconnected aspects. This perspective is supported by scholars such as Huynh et al.

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(2017) and Pourakbar (2018). The four dimensions, as delineated by Bass and Avolio (2013) and investigated by other researchers like Mathieu and Babiak (2015); Salter et al. (2014); Yahaya and Ebrahim (2016), can be summarised as follows:

The dimension of individualised consideration focuses on the leader's ability to recognise and cater to the distinct requirements of each individual follower. Transformational leaders play the role of mentors and demonstrate active listening skills in order to address the problems and meet the requirements of their team members. They foster a culture that promotes empathy and support, while also ensuring the maintenance of open lines of contact with their followers. Moreover, transformational leaders actively engage in challenging their subordinates and inspiring them to surmount obstacles. This technique cultivates a climate of commemoration and acknowledgment for the contributions made by members of a team, hence augmenting the inclination of followers to engage in self-improvement. The aforementioned methodology fosters an inherent drive inside individuals, compelling them to successfully accomplish assigned activities and execute their responsibilities (Khan et al., 2022; Kwon et al., 2019).

Intellectual stimulation is a critical component of TL that emphasizes the importance of challenging conventional wisdom and fostering an environment of innovation (Thuan, 2020). Transformational leaders, in this context, actively engage in practices that encourage questioning of established norms, urging their followers to think creatively and take calculated risks. This process is not only about challenging the status quo but also about encouraging a culture where diverse ideas are welcomed, and new perspectives are explored (Sánchez-Cardona et al., 2018). Leaders who emphasize

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intellectual stimulation create a work environment where innovation is nurtured, and employees are encouraged to think critically and independently, leading to continuous improvement and growth (Liu et al., 2021).

In such environments, the expression of individual ideas is actively promoted, with the organisation providing support systems that enable members to voice their thoughts without fear of criticism or failure. This open exchange of ideas creates a culture where creativity is valued, and employees feel empowered to contribute to the organisational mission through innovative solutions (Ogola et al., 2017). By encouraging employees to explore different perspectives and challenge established processes, transformational leaders build a culture of trust and collaboration, where intellectual diversity is seen as an asset to problem-solving and achieving organisational goals (Dago-oc & Tagadiad, 2023).

Furthermore, transformational leaders view learning as a core value and essential for both personal and organisational growth. They embrace uncertainty and unexpected challenges as opportunities for development, rather than obstacles to be avoided. In doing so, they foster resilience and adaptability among their followers, encouraging them to approach unforeseen circumstances as learning opportunities that contribute to both professional and personal growth (Safaruddin et al., 2023). This approach not only enhances individual skills but also equips the organisation to navigate complex and dynamic environments more effectively (Butaki et al., 2024).

Research by Cahyono et al. (2020) and Kotamena et al. (2020) underscores the importance of intellectual stimulation in promoting active engagement among

followers. These studies highlight how transformational leaders encourage followers to ask questions, explore alternative solutions, and seek innovative ways to execute tasks and achieve goals. By fostering an environment where employees are encouraged to think creatively and take ownership of their contributions, transformational leaders drive higher levels of motivation and commitment within the organisation. This active promotion of intellectual engagement leads to improved problem-solving capabilities, as employees are empowered to identify and implement innovative solutions that contribute to organisational success (Otong & Tagadiad, 2023).

Moreover, by facilitating intellectual stimulation, transformational leaders help create a learning organisation—one that continuously evolves by integrating new ideas, technologies, and practices into its operational framework (Furaha et al., 2023). This learning-oriented culture allows organisations to remain competitive and agile in the face of changing external conditions. In essence, intellectual stimulation promotes an atmosphere of continuous learning and adaptation, which is crucial for organisations aiming to maintain long-term sustainability and success (Faqera & Manaf, 2024).

In the realm of leadership, those who possess TL skills have exceptional proficiency in formulating a captivating vision that deeply connects with and effectively inspires their subordinates. The individuals in question establish elevated benchmarks and effectively convey optimistic messages on forthcoming aims and objectives, so fostering a feeling of direction and meaning among their team constituents (Dago-oc & Tagadiad, 2023). TL play a crucial role in inspiring and motivating their followers by establishing meaningful objectives. This enables followers to unlock their whole potential and enhance their talents and competencies. Effective communication plays

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a crucial role in bolstering the visionary capabilities of TL leaders, as it facilitates the comprehension, potency, precision, accuracy, and engagement of the envisioned goals and objectives. According to Kotamena et al. (2020), this practise motivates individuals to dedicate their efforts and expertise to their professional endeavours, therefore cultivating a positive outlook on their own personal development and the enhancement of their talents.

Idealized influence is a crucial aspect of leadership effectiveness, which involves evaluating a leader's ability to serve as an inspiring role model for their followers. Leadership encompasses a wide range of qualities and behaviours that inspire and shape the ethical and aspirational dimensions of leadership (Alneyadi et al., 2019). Idealized influence refers to the leader consistently demonstrating ethical behavior, exemplary work ethics, and the ability to instil a strong sense of pride among team members. This is accomplished by fostering trust, respect, and admiration among followers, thereby establishing the leader as a figure deserving of emulation (Bass, 1990).

Leaders who demonstrate idealized influence embody their words through consistent ethical behaviour in their actions and decisions. Their behaviour serves as a prominent display of moral clarity, thereby establishing a compelling model for others to emulate. These leaders establish a culture of integrity within their organisations by following a strong ethical compass, thereby emphasizing the significance of ethical conduct in all aspects of work (Al-Shibami et al., 2019). Furthermore, idealized influence encompasses more than just ethical considerations. Leaders who excel in this dimension also demonstrate exceptional work ethics. They are recognized for their

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diligent, dedicated, and committed approach towards accomplishing organisational objectives. Their strong work ethic serves as a standard for productivity and motivates their team members to perform at their best (Cahyono et al., 2020).

Idealized Influence encompasses not only ethical and work-related qualities, but also the cultivation of team pride. Effective leaders serve as role models, inspiring their followers to feel a sense of purpose and achievement. They foster a sense of pride in team membership and in making meaningful contributions to the organisation's mission and vision. Pride can serve as a strong motivator, compelling individuals to excel in their roles and align their efforts with the leader's vision (Kotamena et al., 2020).

Chan et al. (2019) and Raman et al. (2020) highlight the importance of idealized influence in current leadership research. Scholars have highlighted the significant influence of leaders who serve as role models, emphasizing the positive consequences that result from leaders who exemplify ethical behavior, strong work ethics, and behaviours that foster a sense of pride. In essence, idealized influence is a fundamental aspect of successful leadership. Leaders, by exemplifying admirable qualities and behaviours motivate and empower their followers to attain individual and collective excellence.

The use of the four full-range concepts, which encompasses these dimensions, is a commonly utilised methodology for evaluating TL and is implemented via the administration of the "Multifactor Leadership Questionnaire" (MLQ). The MLQ, first introduced by Bass (1985) and later enhanced by Bass and Avolio (1990), is well

recognised for its strong levels of validity and reliability. The MLQ has been successfully used by researchers, such as Antonakis et al. (2003), to assess and quantify TL across different settings. In the last twenty years, several scholars have used this survey instrument to investigate TL, as seen in previous studies (Cohen, 2015; Jeong et al., 2016; Tajasom & Ariffin, 2013; Vasilaki et al., 2016). In a study conducted by Jyoti and Dev (2015), the researchers used the TL theory and utilised the four full-range questionnaires to examine the influence of TL on employee creativity. The findings of the study highlighted the ability of the TL theory to effectively explain the variances seen in creativity levels across employees.

While the existing body of research has mostly concentrated on the implementation of leadership theories such as TSL and TL in corporate settings, there is a scarcity of studies that have used the TL framework to investigate leadership in the public sector. For example, Jiang et al. (2017) used TL to examine its influence on outcomes related to SP. The research used the concept of TL to examine its impact on both the WE and SP. The decision was based on the understanding that transformative leaders have a crucial impact on promoting the long-term viability and success of an organisation. This is accomplished via the activation of inspiration and empowerment within workers, the cultivation of a positive work environment, and the fostering of a collective sense of purpose. The aforementioned components have a profound impact on both WE and SP, thereby influencing the course of the organisation within the public sector.

2.2.2 Transactional leadership

The roots of TSL can be traced back to the pioneering work of Max Weber, a prominent 20th-century German sociologist renowned for his insightful analysis of leadership styles. Weber's exploration of leadership led him to categorize these styles into three distinctive groups. The initial grouping comprised traditional leadership, followed by the charismatic leadership and rational-legal leadership in the second tier, with bureaucratic leadership constituting the third category. However, it was in the mid-20th century that Weber first articulated the concept of rational-legal leadership, characterizing it as the exercise of control grounded in knowledge (Breuilly, 2011).

Burns (1978) expanded on Weber's concepts and made a noteworthy contribution to the discussion on leadership. Burns (1978) emphasized the significance of moral integrity and a higher purpose in both TL and TSL styles. Burns's influential work established the foundation for a deeper comprehension of leadership, highlighting the importance of leaders embodying moral dimensions. According to Burns, TSL is characterized by its steadfast dedication to a set of fundamental values that are essential to its operation. The values encompassed are fairness, honesty, responsibility, and a steadfast commitment to upholding commitments. These values are fundamental to TSL and influence the leader's interactions with their team and the organisation (Martinez & Leija, 2023).

Fairness is a fundamental principle in TSL that aims to guarantee equal treatment of all team members. Leaders who adhere to the principles of TSL are required to make unbiased decisions and allocate resources without showing favouritism or engaging in discriminatory practices (Lee et al., 2023). Fairness promotes trust and confidence

among employees, which is crucial for cultivating a harmonious and motivated workforce. Honesty is a fundamental value in TSL, emphasizing transparent communication and integrity in all interactions. Leaders who adhere to the principles of TSL are characterized by their honest and truthful communication, ensuring the provision of accurate information while refraining from engaging in deceptive practices. This fosters a culture of trust and credibility among team members, emphasizing the importance of open and honest communication (Rockstuhl et al., 2023).

Responsibility in the field of TSL entails leaders assuming accountability for their decisions and actions. TSL leaders bear responsibility for their decisions and the resulting outcomes. This practice of accountability establishes a precedent for team members, fostering a sense of ownership and responsibility towards their tasks (Mouazen & Hernández-Lara, 2023). TSL leaders are recognized for their unwavering dedication to honouring agreements and commitments. They demonstrate commitment and ensure the fulfilment of agreements. Reliability fosters trust and credibility among team members, thereby reinforcing the leader's standing (Abbas & Ali, 2023).

This work by Burns (1978) laid the groundwork for further advancements in leadership theory, particularly in the 1980s and 1990s, when Bernard M. Bass and Bruce J. Avolio expanded upon it. Bass and Avolio offered a comprehensive framework for TSL, delineating its dimensions (Avolio & Bass, 1988; Bass, 2000; Bass et al., 2003; Bass & Avolio, 1990), which include:

i. **Contingent Reward**

In the dimension of "Contingent Reward," leaders employ a strategic approach to motivate and reward their followers based on their performance. This method establishes a clear and direct link between the quality of work and the incentives provided, a concept closely associated with the work of Avolio and Bass (1988), Bass (2000), and Bass and Avolio (1990). Leaders utilizing this approach meticulously assess individual contributions and achievements, ensuring that rewards are proportional to the effort and results produced. This method fosters a sense of fairness and equity among followers, as they perceive that their hard work and dedication are directly linked to tangible rewards, such as bonuses, promotions, or other forms of recognition. This emphasis on reward-based motivation has been discussed in leadership studies as a key element of TSL, which is effective in creating performance-driven environments (Bass et al., 2003).

Leaders who excel in the contingent reward dimension are skilled at setting clear performance expectations and communicating them effectively to their team members (Bass & Avolio, 1990). They create an environment where followers are motivated to strive for excellence and are driven by the prospect of earning rewards commensurate with their performance. This approach can be particularly effective in settings where employees value financial incentives, career advancement, or other tangible benefits tied to their work performance. According to Bass (2000), contingent reward practices play a critical role in enhancing productivity and aligning individual efforts with organisational goals.

ii. Passive Management by Exception

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In the dimension of "Passive Management by Exception," leaders adopt a more hands-off approach to their leadership responsibilities. They refrain from intervening in the day-to-day work of their team members unless a significant issue or problem arises that requires their attention (Bass & Avolio, 1990). This style of leadership is characterized by a level of trust in followers' ability to manage their tasks independently and meet established expectations. Avolio and Bass (1988) note that passive management by exception can allow for autonomy, but it risks creating a reactive leadership environment where problems are addressed only after they have escalated.

Leaders who employ Passive Management by Exception often give their team members a degree of autonomy and responsibility, allowing them to take ownership of their work and decisions. This approach can foster a sense of empowerment and autonomy among followers, as they have the latitude to exercise their judgment and problem-solving skills. However, it also relies heavily on followers' self-regulation and accountability, as leaders step in only when there is a deviation from expected performance or when a critical issue emerges. Bass (2000) argues that while this approach can cultivate a trusting relationship between leaders and followers, it may also create gaps in oversight if not balanced with appropriate monitoring.

This style of leadership can be well-suited to situations where followers possess the necessary expertise and experience to handle their responsibilities autonomously. It can promote a sense of trust and autonomy within the team, as long as there is clarity about performance expectations and guidelines for when leader intervention is required (Bass et al., 2003).

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iii. Active Management by Exception

"Active Management by Exception" represents a proactive approach to leadership, where leaders closely monitor the progress of their team members' work and take pre-emptive actions to address potential issues. Leaders who excel in this dimension are vigilant and attuned to their team's activities, seeking opportunities to prevent problems or deviations from established standards (Bass & Avolio, 1990). Active management by exception reflects a more engaged leadership style compared to its passive counterpart, as leaders consistently observe performance and intervene before small issues escalate into larger problems.

Leaders employing active management by exception often engage in regular check-ins, performance reviews, and active oversight of ongoing tasks. They use performance metrics and feedback mechanisms to identify any signs of underperformance or deviations from established goals. Bass (2000) highlights the importance of this leadership style in maintaining high standards of performance by ensuring that corrective actions are taken promptly. When issues arise, these leaders take prompt corrective actions to ensure that the work stays on course and aligns with organisational objectives (Avolio & Bass, 1988). Active management by exception is particularly effective in environments where close supervision and continuous feedback are critical for achieving desired outcomes.

This style of leadership is particularly useful in dynamic and complex work environments where rapid responses to emerging challenges are essential. It helps maintain a high level of vigilance and accountability within the team, ensuring that performance standards are consistently met. However, it can also be resource-intensive

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for leaders, as it requires continuous monitoring and intervention. Effective communication is critical in this style, as leaders must convey performance expectations clearly and provide timely feedback to maintain high standards of performance.

Both TL and TSL are recognized as valuable leadership paradigms, and researchers have highlighted the potential benefits of blending elements of these two styles to achieve optimal outcomes for leaders and followers. TSL theory, in particular, is rooted in the principle of exchange, wherein leaders provide their employees with incentives or rewards in return for specific contributions or outcomes.

Nevertheless, within the context of SP in the public sector of developing countries, there has been a dearth of research examining the effects of TL and TSL. Previous studies have predominantly focused on business organisations. For example, a study by Kalsoom et al. (2018) investigated the influence of TL and TSL on employee performance (EP) in the industrial sector in Pakistan and found that TSL had a more significant impact than TL. Similarly, in the banking sector, the research conducted by Advani and Abbas (2015) demonstrated the significant effects of both TSL and TL.

However, there have been instances where TL was found to affect the performance of employees in the UAE business sector, while TSL had a limited impact (Cedwyn Fernandes & Raed Awamleh, 2004). This disparity in findings has led to varying interpretations regarding the relative effectiveness of TL and TSL (Afolabi et al., 2008; Kalsoom et al., 2018).

To address this disparity, particularly within the unique context of the public sector in the UAE, this study seeks to deploy the theories of TSL and TL to comprehensively examine and compare their impacts on WE and SP. This research aims to bridge the gaps in existing literature and provide valuable insights into the applicability and effectiveness of these leadership styles within a specific context.

2.2.3   Social Exchange Theory

SET was originally a sociological theory that has been developed to measure and analyse social behaviour of people in term of exchange of resources. George Homans in 1958 is considered the father of the theory and he defined SET as an exchange of activity or resource either tangible or intangible and more or less rewarding or costly between at least two individuals (Cropanzano et al., 2017). The theory's applicability in the field of sociology was expanded by other scholars (Stafford & Kuiper, 2021). Social exchange is defined as the "voluntary actions of individuals that are motivated by the anticipated benefits they are likely to receive, which indeed materialize from others" (Li et al., 2023; Paillé et al., 2022).

This theoretical framework posits that human behavior is motivated by a fundamental inclination to maximize benefits and minimize costs, which is inherently grounded in self-interest. This perspective recognizes that individuals have a natural tendency to prioritize their own well-being and interests. Individuals in social interactions and relationships strive to achieve a balance between their potential gains and the potential sacrifices they may have to make (Van Wijk et al., 2014). In practical terms, individuals engage in a cognitive evaluation to determine the potential benefits and drawbacks of participating in a social exchange. Individuals are more likely to engage

in a social interaction or relationship when they believe that the benefits outweigh the costs (Mital et al., 2010).

Cost-benefit analysis is a crucial component of decision-making in diverse social settings. Cost-benefit analysis applies to various scenarios, such as personal relationships, business transactions, or situations where individuals assess whether the benefits of a specific action outweigh the associated effort, resources, or drawbacks. This behavior reflects the innate human tendency to pursue positive outcomes while minimizing negative consequences.

This study deploys the SET to explain the moderating role of OC. Employees who possess a high level of commitment towards their organisation are inclined to exert additional effort and participate in discretionary behaviours that surpass their prescribed job duties (Xuecheng & Iqbal, 2022). This additional effort may involve assisting colleagues, offering innovative ideas, and assuming extra responsibilities in order to further the organisation's objectives (Cropanzano et al., 2017). In a social exchange, employees perceive that their commitment to the organisation is valued and recognised, thereby motivating them to sustain their investment in the organisation's success (Al-Jabari & Ghazzawi, 2019).

High levels of OC are linked to decreased turnover intentions. Committed employees are more inclined to maintain long-term tenure with their organisation (Rawashdeh & Tamimi, 2020). Reducing turnover results in cost savings related to the recruitment, training, and onboarding of new employees. Moreover, employees who have been with the organisation for a significant period of time often possess valuable knowledge and

experience, which can contribute to the long-term viability and effectiveness of the organisation (Jehanzeb & Mohanty, 2020; Talukder, 2019).

OC is crucial for fostering trust and reciprocity in the workplace, which in turn motivates employees to share their knowledge and expertise with their colleagues (Al-Jabari & Ghazzawi, 2019). This phenomenon resembles a virtuous cycle, in which a strong OC motivates employees to actively contribute their insights, experiences, and skills. Promoting knowledge sharing within an organisation is highly significant. It functions as a catalyst for organisational learning, which is a dynamic process that utilizes the collective knowledge and experiences of employees to facilitate continuous improvement and innovation. When employees openly exchange their expertise, insights, and best practices, the organisation becomes a fertile environment for the dissemination of valuable knowledge among teams and departments.

Organisational learning is facilitated by employees' dedication to knowledge sharing, allowing the organisation to effectively adapt, evolve, and maintain agility in a dynamic business environment. It enables the organisation to identify and adopt best practices, thereby ensuring continuous improvement of its processes, strategies, and operations. Furthermore, the impact of this culture of knowledge-sharing is significant. Effective performance management not only improves individual and team performance, but also plays a significant role in enhancing an organisation's overall competitiveness and success. The exchange of knowledge among employees enhances efficiency, innovation, and problem-solving abilities, which are crucial for long-term growth and excellence. The relationship between OC, knowledge sharing, and organisational learning leads to a positive cycle of improvement and improved

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performance outcomes. According to Rawashdeh and Tamimi (2020), this environment promotes employee motivation and encourages them to contribute their expertise, resulting in continuous organisational development and success.

Liang et al. (2008) investigated the literature to find the factors associated with SET. They used meta-analysis review and concluded that previous studies used many factors related to SET. These factors include individual cognition, OC, perceived benefits, interpersonal interaction, social interaction, trust, organisational effort, organisational support, and reward systems. This study uses the SET to explain the role of OC. The theory was used in previous studies to explain the role of OC (To & Huang, 2022; Van Waeyenberg et al., 2022). Therefore, this study expects that the moderating role of OC can be explained by the SET.

2.3 Sustainable Performance

This section discusses the SP. The section includes the definition of the SP as well as an overview of the SP.

2.3.1 Definition of Sustainable Performance

SP is a new concept, and its importance increased after 2015 with the UN agenda of 2030. The variable was defined differently in several studies. SP is defined as "the firms' practices that combine both economic, environmental, and social activities" (Oyelakin & Johl, 2022). In another definition, SP is defined as "receiving return on investments without endangering the natural environment and society" (Ratnayake, 2016). In addition, SP was defined as "the ability of companies to reduce harmful

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emissions and improve green innovation to maintain a long-term competitive advantage" (Wang et al., 2022).

These above definitions collectively emphasise the diverse aspects of SP. The authors highlight the importance of achieving SP by effectively managing the interplay between economic success, environmental considerations, and social responsibility. Sustainable business practises encompass the adoption of strategies that take into account the long-term effects on both the environment and society, while also maintaining the organisation's competitiveness and profitability. The concept of SP is subject to ongoing evolution, influenced by research, policy developments, and collaborative efforts of businesses and stakeholders aiming to foster a sustainable future.

The definition of Ratnayake (2016) highlights the importance of achieving financial returns or profitability while ensuring that business activities do not harm the natural environment or society. The definition of Wang et al. (2022) links SP to companies' ability to reduce their negative environmental impact, particularly by reducing harmful emissions. It also introduces the concept of green innovation, suggesting that organisations that invest in environmentally friendly technologies and practices can gain a competitive advantage in the long run.

In this study, the definition of Oyelakin and Johl (2022) is adopted which emphasizes the idea that SP involves integrating economic, environmental, and social considerations into an organisation's practices and operations. It recognizes that SP goes beyond solely focusing on financial gains but also encompasses the impact on the

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environment and society. This definition suits this research because the research is examining the SP of Ministry of Interior Affair which is a public entity that focuses not only on the profitability but also on the social and environmental aspects. In this study, SP is operationally defined as the ability of an organisation to achieve its objectives and goals in a manner that is economically, socially, and environmentally responsible and viable over the long term.

2.3.2 Overview of Sustainable Performance

The sustainability development goals (2030) is a vision launched by the UN to achieve a sustainable world by 2030. The SDGs were established by the UN in 2015 as part of the 2030 Agenda for Sustainable Development (SD) (Larionova, 2020). These goals include a wide range of global objectives, totalling 17 in number. The objectives are formulated with the intention of addressing a wide range of complex difficulties that include many aspects of social, economic, and environmental issues. According to Eisenmenger et al. (2020), by fulfilling this role, they function as a guiding framework that sheds light on a trajectory leading to a future that is both sustainable and fair for the global community. The SDGs represent a progression from the previous Millennium Development Goals (MDGs), with a more comprehensive scope that extends beyond impoverished nations to include industrialised ones as well. The broadened extent of this perspective demonstrates an understanding of the interrelated and interdependent nature of global issues. It recognises that progress in one area may have significant and widespread consequences that extend beyond specific sectors (Heleta & Bagus, 2021).

The 2030 Agenda emphasizes that achieving these goals requires global collaboration, innovative solutions, and a commitment from all countries, businesses, civil society, and individuals (Kosciejew, 2020). By working together to achieve the SDGs, the world can create a more prosperous, just, and sustainable future for everyone (Carpentier & Braun, 2020). Figure 2.2 presents a diagram where the UN set the goals of SD and urged countries to set their own goals to be achieved by 2030. Among these countries, is the UAE which made initiative to improve the sustainability and requested the participation of private and public sectors in achieving the goals of sustainability which can be divided into economic, social and environmental.
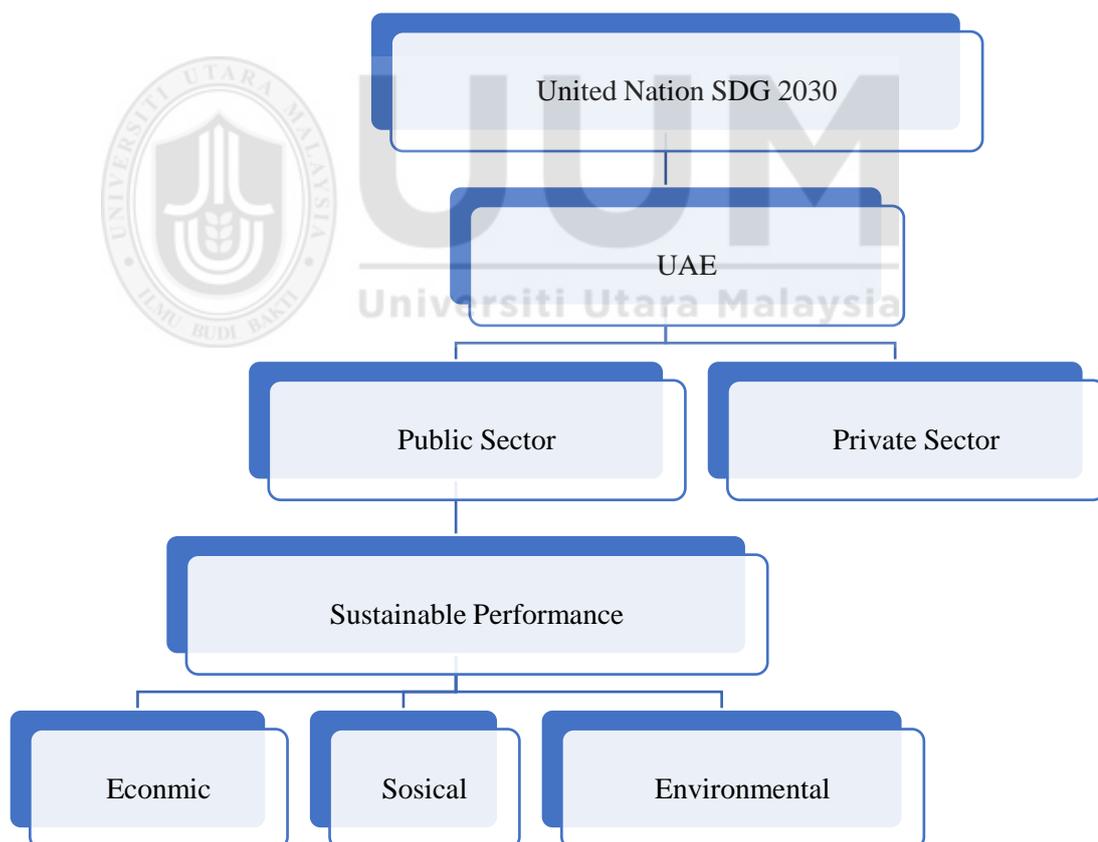
Figure 2. 2:Sustainable Goals (Self-developed)

To achieve these goals, organisations were actively incorporating sustainability principles into the organisation's strategies, operations, and decision-making processes to generate value for both shareholders and stakeholders, such as employees, customers, communities, and the environment (Chaturvedi et al., 2021). The SP involves three aspects that are the economic, environmental, and social SP. In the following section, a discussion of the dimension of sustainable performance is conducted.

2.3.2.1 Economic Sustainability

Economic sustainability encompasses an organisation's financial well-being, stability, and capacity to generate enduring value for shareholders, investors, and other stakeholders (Hawes et al., 2019). Economic sustainability is crucial for achieving long-term success and implementing sustainable practises. Organisational sustainability is contingent upon achieving profitability and financial success (Diesendorf, 2020). An organisation must generate sufficient revenue to cover its expenses and facilitate growth. Profitability is crucial for the long-term viability and continuity of the organisation (Sanguino et al., 2020).

Part of the economic sustainability is the resource efficiency which is crucial for minimising waste and operating expenses. Implementing resource-efficient practises can have a dual benefit of increasing profits while simultaneously reducing environmental impact (Cainelli et al., 2020). In addition, the economic sustainability includes the responsible investment, which encompasses the consideration of long-term sustainability and financial benefits. As a part of the economic sustainability, organisations are using technology and emphasis on innovation and research and

development (R&D) (Borowski, 2021). Innovation promotes long-term growth and a competitive edge (Liu et al., 2020). Economic sustainability encompasses the evaluation of long-term effects and financial benefits. The process entails the reconciliation of immediate financial goals with the long-term objectives of growth and value generation (Duque-Grisales et al., 2020; Paiva et al., 2020).

Overall, economic sustainability is a fundamental aspect of an organisation's overall SP. Financial stability, efficient resource management, ethical investment, and strategic long-term planning have the potential to generate value for stakeholders and contribute to the well-being of the economy and society. Organisations that aim to achieve better SP have to focus on economic aspect along with the social and environmental aspect. This study includes the economic sustainability as a dimension of SP.

2.3.2.2 Environmental Sustainability

Organisational SP aims to mitigate the environmental impact of corporate activities, thereby promoting ecological balance and conservation (Zheng et al., 2021). Contemporary businesses place significant emphasis on environmental sustainability due to the adverse effects of climate change, resource depletion, and pollution (Aftab et al., 2022). Environmentally conscious organisations combat climate change by reducing greenhouse gas emissions, particularly carbon dioxide (CO_2) (Martins et al., 2021).

Sustainable organisations employ measures to conserve water, energy, and minimise waste. Reducing resource usage has a positive impact on the environment and encourages the adoption of a circular economy (Paiva et al., 2020). Environmentally sustainable organisations promote responsible procurement practises that take into account the impacts of the supply chain (Zheng et al., 2021). Utilising certified sustainable vendors is imperative. As part of the environmental sustainability, sustainable organisations prioritise the utilisation of environmentally friendly technology and the development of green innovation. They also prioritise compliance with environmental legislation and surpass minimum requirements (Cao et al., 2020).

Sustainable transportation strategies, such as public transit, carpooling, and cycling, aim to reduce greenhouse gas emissions associated with transportation (Din et al., 2023). Environmental sustainability necessitates the active involvement of employees, consumers, and the community in various environmental initiatives (Hossain & Taz, 2023). Sustainable organisations must be responsive to the challenges posed by climate change. These organisations evaluate their susceptibility to climate change and devise strategies to address environmental issues (Hasler et al., 2022). Organisations pursue eco-labelling and certification as a means to showcase their commitment to environmental responsibility. This promotes informed and accountable consumption (Iqbal et al., 2020). Overall, environmental sustainability is crucial for an organisation's SP as it directly pertains to its ecological impact. This study includes the environmental sustainability as a dimension of SP.

2.3.2.3 Social Sustainability

Social sustainability is a vital aspect of organisational sustainability as it encompasses the organisation's influence on society and its dedication to enhancing the well-being, rights, and interests of its stakeholders, such as employees, customers, and communities (Stahl et al., 2020). Organisations that pursue social sustainability place a higher emphasis on ethics and social responsibility rather than on maximising profits (Bhatti et al., 2022). Social sustainability involves establishing a constructive and inclusive organisational culture that promotes employee involvement, upholds human rights, supports community development, and enhances society (X. Yan et al., 2022).

Socially sustainable organisation focus on the promotion of employee well-being. The organisation prioritises the promotion of work-life balance, safety, and employee well-being (Raza et al., 2021). Social sustainability encompasses equitable compensation, comprehensive benefits, and opportunities for professional growth (Barauskaite & Streimikiene, 2021). Part of the SP in term of the social aspect is the focus on employee involvement by promoting open communication, decision-making, and professional development (Barauskaite & Streimikiene, 2021; Bauer, 2022). It also include the organisation's engagement with the community. Organisations establish connections with communities through volunteering, philanthropy, and community development initiatives (Yan et al., 2022).

Sustainable organisations adhere to these principles in their operational and supply chain activities. This entails the identification and resolution of human rights concerns, as well as the promotion of ethical sourcing and procurement (Gurzawska, 2020). Socially sustainable organisations prioritise product safety, dependability, and ethics

(Fernando et al., 2022). Overall, social sustainability is a crucial aspect of an organisation's long-term success, as it demonstrates the organisation's dedication to society. Social SP is the third dimension of SP in this study.

2.3.3 Sustainable Performance in UAE

The interest on SP is part of the agenda of UAE at the national level and the organisational level. At the national level, the government has adhered to the United Nation Agenda of 2030 by establishing several initiatives to improve the SP. UAE has undertaken initiatives aimed at tackling environmental concerns and mitigating its ecological impact (Zaidan et al., 2019). One such endeavour is the UAE Vision 2021; whereby environmental sustainability is seen as a fundamental component (Gulseven & Ahmed, 2022). The nation has made substantial investments in renewable energy sources, including solar and wind power, with the aim of diminishing its dependence on fossil fuels (Krzymowski, 2020). Masdar City in Abu Dhabi serves as a prominent illustration of sustainable urban development and the integration of green technology (Madhu & Pauliuk, 2019; Sodiq et al., 2019).

The UAE Energy Strategy 2050 strives to enhance the proportion of renewable energy sources within the energy composition and mitigate carbon emissions (Matar, 2020). The UAE Vision 2021 and its extension, the vision 2030 encompasses key national priorities such as SD, innovation, and the establishment of a competitive knowledge-based economy (Al Yami & Ajmal, 2019). The government has incorporated sustainability principles into various sectors' policies, strategies, and plans (Gulseven, 2020).

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At the organisational level and in particular in the public sector organisations, the UAE places significant emphasis on sustainable infrastructure development (Al Yami & Ajmal, 2019; Zaidan et al., 2019). The government encourages the adoption of environmentally friendly construction methods, energy-efficient technologies, and sustainable urban planning to reduce environmental harm and improve the durability of infrastructure (Krzymowski, 2020; Sodiq et al., 2019). Organisations in the UAE are encouraged to contribute to the country's SD agenda by integrating responsible practices into their operations (Umar et al., 2020). Against this background, there is still limited studies that have examine the SP of public sector in UAE. Therefore, this study aims to examine the link between leadership style, WE, OC and the SP of organisations in UAE.

2.4 Work Engagement

This section discusses the WE. The section discusses the definition and an overview of the WE.

2.4.1 Definition of Work Engagement

WE is defined as "a positive, fulfilling, work-related state of mind characterized by vigour, dedication and absorption" (Adekola, 2010). In this study, it refers to the positive, fulfilling, and energizing state of mind that employees experience when they are deeply involved in and enthusiastic about their work. WE is also defined as a behavior or an attitude statement from a psychological standpoint (Ali & Anwar, 2021). WE is also defined as "the extent an individual employee's cognitive, emotional

and behavioral state directed toward desired organisational outcomes" (Chin et al., 2019).

The three above definitions focus on the WE as a psychological state of employees. The definition of Ali and Anwar (2021) indicated that WE can be an attitude or a behaviour of employees in their organisations. On the other hand, the definition of Chin et al. (2019) viewed WE as a cognitive, emotional and behavioral state of employees toward achieving the organisational goals. This study deploys the definition of Adekola (2010) because this definition is widely used in the literature, and it referred to WE as the fulfilling of work-related activities and achievement of the organisational goals.

2.4.2 Overview of Work Engagement

The concept of WE was popularized by researchers William Kahn and Mina Westman in the 1990s and has since become a significant topic in the fields of organisational psychology and human resources (Alqhaiwi & Luu, 2023). It is often associated with positive outcomes for both employees and organisations. WE goes beyond mere JS; it is a deeper emotional connection and commitment to one's work and the organisation (Rožman & Štrukelj, 2021).

WE is the state in which employees experience a positive and energised mindset, feeling fully absorbed, enthusiastic, and dedicated to their work (Rožman & Štrukelj, 2021). Engaged employees demonstrate high levels of task involvement, possess a strong sense of purpose and passion towards their work, and exhibit a willingness to

exert their utmost efforts in order to accomplish organisational objectives (Neuber et al., 2022; Saks, 2019). WE is distinct from JS as it entails more than just being content with one's job. While JS refers to a general sense of contentment, WE involves a stronger emotional connection to work and a greater level of dedication (Chan, 2019; Kaya & Karatepe, 2020).

The key components of WE includes vigour which represents the vibrant energy and enthusiasm that engaged employees bring to their work (Chan, 2019; Kaya & Karatepe, 2020). They approach their tasks with a sense of passion and determination, eager to tackle challenges and achieve their goals (Saleem et al., 2022). This vigour can positively influence the work atmosphere, inspiring other team members to perform at their best (Abukhalifa et al., 2022). Engaged employees display a can-do attitude, and even in the face of adversity, they remain resilient, finding creative solutions and maintaining a positive outlook (Saleem et al., 2022).

The second component is dedication which is the emotional commitment that engaged employees have towards their organisation (Khan & Bhagat, 2022). They feel a strong sense of loyalty and devotion to the mission and values of the organisation. This dedication is not solely driven by extrinsic factors like rewards or recognition; instead, it emanates from a genuine alignment of personal values with those of the organisation (Alshaabani et al., 2021; Kotzé & Nel, 2020). Engaged employees view their work as meaningful and fulfilling, contributing to a sense of purpose and identity (Kaur & Mittal, 2020).

The third component is absorption which refers to the state of flow that engaged employees experience while immersed in their work (Firouznia et al., 2021). When employees are absorbed in their tasks, they become fully concentrated and lose track of time (Kuijpers et al., 2020). This heightened state of concentration enhances their productivity and creativity, as they are able to focus on the task at hand without distractions (Sharma & Nambudiri, 2020; Q. Yan & Donaldson, 2023). Engaged employees derive a sense of accomplishment and satisfaction from being deeply absorbed in their work, which boosts their overall well-being and JS (Delina, 2020).

This study examines the mediating role of WE. Few studies examine this mediating role in the literature. For instance, in Malaysia, Ojo and Fauzi (2020) found that engagement in green IT practices mediated the effect of green IT attitude on environmental IT performance. Thus, this study extends the literature by examining the mediating role of WE.

2.5   Organisational Commitment

This section discusses the OC. The study proposed OC as a moderating variable. Therefore, this study presents and discusses the definitions of OC and provides an overview of the OC.

2.5.1   Definition of organisational commitment

OC is defined as "the relative strength of an individual's identification with and involvement in a particular organisation" (Gebremichael & Rao, 2013). One of the widely used definition of OC is the definition by Meyer et al. (1993) which refer to

OC as "the employee's emotional attachment to, identification with, and involvement in the organisation". OC is defined as "a strong desire to maintain employment in the organisation" (Chhabra et al., 2020).

The definition of Gebremichael and Rao (2013) highlights the significance of an individual's strong sense of identification and active participation within a particular organisation. It also acknowledges the multifaceted character of OC, encompassing cognitive elements such as identification and behavioural elements such as involvement. Meyer et al.' (1990) definition holds significant acceptance and influence in the field of organisational behaviour. This perspective highlights the significance of emotional elements in commitment, proposing that commitment extends beyond logical considerations and encompasses a profound emotional connection to the organisation. The third definition by Chhabra et al. (2020) view OC as desire to stay employed by the organisation.

These definitions offer valuable insights into the complex nature of OC. They highlight emotional attachment, identification with organisational values, and active involvement in organisational activities as crucial elements of commitment. However, the definition of Meyer et al. (1990) is more comprehensive, and it is adopted in this study. The OC is defined operationally in this study as the employees' psychological attachment to their organisation.

2.5.2 Overview of Organisational Commitment

OC is a significant construct in the field of organisational behaviour and management due to its direct impact on employee attitudes, behaviours, and performance. Extensive research has contributed to the evolution of the concept, enhancing the comprehension of the role of the OC in organisational settings. The Three-Component Model of OC, formulated by Mowday et al. (1979), offers a comprehensive framework that distinguishes the three separate components of commitment. This model has been influential in shaping subsequent research and theories on OC (Mowday et al., 2013).

The first component is the affective commitment which is widely regarded as the most desirable form of commitment (Atrizka et al., 2020). Employees who have high affective commitment experience a strong emotional connection and sense of belonging to their organisation (Alqudah et al., 2022). Employees exhibit strong alignment with the organisation's values and mission, fostering a sense of inclusion and cultivating a sense of pride in their affiliation with the organisation (Khaskheli et al., 2020). Consequently, individuals are more inclined to display high levels of WE, discretionary effort, and JS (Khaola & Rambe, 2021). Affective commitment is linked to favourable outcomes, including decreased turnover intentions, enhanced OCB, and improved job performance (Alves et al., 2020).

The second component is the continuance commitment which is primarily driven by the perceived costs associated with leaving the organisation, making it more instrumental in nature (Afshari, 2023). Employees who exhibit a strong sense of continuance commitment are inclined to remain with their organisation primarily because they perceive the risks and potential costs of leaving, such as financial

instability, loss of benefits, or limited alternative opportunities, as greater than the possible advantages of seeking new employment. This type of commitment is often driven by a sense of necessity rather than emotional attachment, where employees weigh the practical consequences of leaving, such as disruptions to their career progression or challenges in securing a comparable position elsewhere. As a result, their decision to stay is motivated by a cost-benefit analysis, in which the perceived drawbacks of leaving surpass any potential gains. This form of commitment plays a significant role in employee retention, especially in environments where alternative job opportunities are scarce or where employees have invested heavily in their current roles, making departure less appealing (Ujma & Ingram, 2019; Zhao et al., 2021). Losses can encompass both financial aspects, such as pensions or benefits, and non-financial aspects, such as the time invested in the organisation (San-Martín et al., 2020).

The third component is the normative commitment which refers to the inclination of individuals to remain with an organisation due to a perceived moral obligation or sense of responsibility (Al-Hawary et al., 2023). Employees with high normative commitment are motivated to remain with an organisation due to their strong sense of loyalty, gratitude, or alignment with the organisation's values (Ghaderi et al., 2023; Nguyen et al., 2020). This commitment is shaped by social norms, personal values, and a sense of obligation to the organisation (Landue et al., 2021). Normative commitment is a factor that can influence employees to remain with an organisation, even in the absence of emotional attachment. It is commonly linked to a strong adherence to ethical principles and a sense of loyalty (Al-Hawary et al., 2023; Landue et al., 2021).

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Overall, OC is essential for the organisations and employees. Improving OC is considered a strategic method for enhancing OP, productivity, and overall success. This study deploys OC as a moderating variable between leadership styles and SP.

2.6   Existing Framework and Studies of Sustainable Performance

A review was conducted to understand the finding of previous studies and to identify the gaps in the literature. The review focused primarily on the role of leadership style in SP. It also included the mediating role of WE and the moderating role of OC. Few studies examined the TL and TSL. For instance, Overstreet et al. (2013) in North America investigated the impact of TL on several dimensions of OP. TL is a leadership approach that is distinguished by leaders that possess the ability to inspire and motivate their followers, hence encouraging them to attain elevated levels of performance. The research conducted indicates that TL has a favourable impact on both the innovativeness of organisations and their operational success. The enhancements in innovativeness and operational effectiveness subsequently result in a favourable influence on financial performance. This implies that organisations led by transformational leaders have a higher propensity for innovation and operational excellence, resulting in enhanced financial success.

In similar study conducted by Chen et al. (2014) in Taiwan, the focus was on the manufacturing industry with a specific emphasis on examining the impact of Green TL on green performance. The Green TL leadership style places a strong emphasis on the principles of environmental sustainability and responsibility. The study revealed that Green TL has a favourable effect on green performance, suggesting that leaders who prioritise environmental sustainability have the power to have a beneficial

influence on the environmental performance of their respective organisations. Moreover, the research has shown that this association is influenced by two variables: environmental consciousness and environmental self-confidence. The concept of green mindfulness pertains to an individual's cognizance and attentiveness towards environmental concerns, while green self-efficacy pertains to an individual's confidence in their capacity to actively participate in environmentally friendly endeavours. These two elements serve as mediators in the relationship between Green TL and green performance.

In China, also, Jiang et al. (2017) investigated the effects of TL on SP and Organisational Citizenship Behaviour (OCB) within the construction sector. TL is a well-recognised leadership approach renowned for its capacity to inspire and encourage workers, hence fostering elevated levels of performance and commitment among individuals within an organisation. The research conducted demonstrates that TL has a favourable impact on both SP and OCB. This implies that the demonstration of transformational attributes by leaders is positively associated with enhanced EP and engagement in OCB, which include discretionary efforts beyond prescribed work responsibilities. Significantly, the research further revealed that OCB serves as a mediator between TL and SP, suggesting that the favourable impact of TL on SP may be largely attributed to the enhanced OCB shown by workers.

In the same vein, Burawat (2019) in Thailand examined the relationship between TL, lean manufacturing (LM), and SP. The research revealed that both Total Quality Management (TQM) and LM had a significant influence on the SP. Furthermore, it has been shown that LM serves as a mediator in the relationship between TQM

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Leadership and SP. This indicates that TQM Leadership contributes to SP to some extent by facilitating the adoption of LM practises. Dai et al. (2022) investigated the influence of corporate social responsibility (CSR), TL, and TSL on OC and SP within China's internet service business. Additionally, the study assessed the moderating influence of sustainable entrepreneurship. The study revealed that CSR, TL, and TSL had a substantial impact on both OC and SP. In addition, it may be observed that OC has a mediating role in the relationship between TL and TSL on SP. Moreover, the concept of sustainable entrepreneurship serves as a moderator in the association between technological leadership/technological and social learning and SP. This finding suggests that the influence of TL and TSL on SP is more pronounced when combined with an emphasis on sustainable entrepreneurial practises.

Udin et al. (2022) conducted a study within the milling sector of Indonesia to examine the influence of TL on innovative work behaviour. This relationship was explored via the mediating factors of knowledge sharing and WE. The results of the study suggest that TL has a significant impact on knowledge sharing and WE, which subsequently influence innovative work behaviour. The link between TL and creative work behaviour (CWB) is mediated by knowledge sharing and WE. Althnayan et al. (2022) investigated the association between Environmental TL and organisational SP within the context of petrochemical enterprises in Saudi Arabia. Additionally, the study examined the moderating influence of work passion and the mediation influence of Environmental OCB. The findings of the research indicate a positive association between Environmental TL and SP. Furthermore, the results show that this connection is influenced by the presence of work passion, implying that the effect of environmental TL on organisational SP is more pronounced when workers have

elevated levels of work passion. In addition, it is observed that the influence of workers' environmentally responsible behaviour on organisational SP is mediated by environmental OCB.

Other styles of leadership were examined in previous studies. For example, Manz et al. (2011) in US on the manufacturing business. The findings showed that shared leadership strategy have a direct impact on SP. In essence, the distribution of leadership duties within a team or organisation has a propensity to provide more favourable sustainability results. In the study conducted by Pellicano et al. (2014) in Italy, the focus was on the banking sector. The study aimed to examine the interplay between social media utilisation, stakeholder involvement, and SD. The findings of the research indicate that social media has a significant impact on enhancing stakeholder participation within the banking industry. The beneficial influence of SD is facilitated by an increased level of stakeholder participation. The research emphasises the importance of contemporary communication platforms, such as social media, in promoting increased involvement with stakeholders and facilitating sustainable growth within the banking industry.

In a study conducted by Kowo and Akinbola (2019) in Nigeria, the focus was on SMEs. The objective of the study was to examine the influence of many aspects, such as strategic planning, leadership practises, social responsibility, and strategy execution, on the level of organisational agility. The results of the study suggest that there is an important association between strategic planning, effective leadership practises, a strong commitment to social responsibility, and successful strategy execution with organisational agility in SMEs. Similarly, Nor-Aishah et al. (2020) in

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Malaysia focused on SMEs and investigated the influence of entrepreneurial leadership on many dimensions of SP, including economic, social, and environmental issues. The results of the study suggest that entrepreneurial leadership has a considerable impact on both the economic and social dimensions of SP. Nevertheless, the findings did not demonstrate a substantial influence on the aspect of environmental sustainability. Furthermore, the research study revealed that the idea of entrepreneurial bricolage, which pertains to the qualities of resourcefulness and flexibility, did not serve as a moderating factor in the impact of entrepreneurial leadership on SP.

Iqbal and Ahmad (2021) in Pakistan examine the association between sustainable leadership and SP. The study also investigated the mediating function of organisational learning. The study revealed that sustainable leadership has a significant impact on both SP and organisational learning. Furthermore, it can be seen that the link between sustainable leadership and SP is mediated by organisational learning. This suggests that sustainable leadership contributes to the improvement of SP to some extent through exerting its impact on organisational learning.

In a study conducted by Pham and Kim (2019) in South Korea investigated the impact of several environmental, economic, and social practises on the performance of sustainability. The use of these practises inside construction enterprises has been shown to provide a significant impact on SP. The enhancement of SP is influenced by several factors, including environmental, economic, and social practises. Moreover, the research findings suggest that the presence of effective leadership skills enhances the significant influence of environmental initiatives on the overall sustainability outcomes.

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Ojo and Fauzi (2020) in Malaysia focused on technological companies and investigated the relationship between many characteristics, including environmental awareness, leadership commitment, green IT belief, green IT attitude, engagement in green IT practises, and environmental IT performance, among technology firms in Malaysia. The research discovered that there is a significant relationship between environmental awareness and leadership commitment with both green IT ideology and green IT attitude. The attitude towards green IT, in turn, has an effect on the level of involvement in green IT practises, which subsequently has an impact on the overall environmental performance of IT systems. The aforementioned series of connections underscores the significance of promoting environmental consciousness and securing the dedication of leaders in order to enhance environmental performance in the realm of information technology.

Sulasmi et al. (2020) investigate the influence of sustainable leadership on a range of parameters, such as psychological safety, structural empowerment, organisational learning, and SP. The study revealed that sustainable leadership has a good impact on psychological safety, structural empowerment, and organisational learning. Moreover, the impact of sustainable leadership on SP is mediated by these three components. sustainable leadership is fundamentally responsible for enhancing SP through exerting influence on key factors such as psychological safety, structural empowerment, and organisational learning.

Iqbal et al. (2020) investigated the relationship between sustainable leadership and SP. Sustainable leadership entails the conscious prioritisation of sustainability ideas and practises by leaders. The study revealed that there is a significant relationship between

sustainable leadership and SP. Additionally, it has been shown that the degree of psychological empowerment inside the organisation serves as a mediator. Pantouvakis and Vlachos (2020) investigates the relationship between talent management, leadership, and Firm SP within the marine sector of Greece. The study revealed that talent management has a substantial impact on SP, surpassing the effect of leadership. Furthermore, the study revealed that the link between talent management and SP is influenced by organisational culture. This implies that the influence of talent management on SP is more pronounced when the organisational culture is significant towards facilitating talent-related endeavours.

Fatoki (2020) examine the impact of ethical leadership on many facets of SP, including social, financial, and environmental dimensions, within the context of SMEs in South Africa. The findings of the research indicate that there is a significant relationship between ethical leadership and both the social and economic aspects of SP. However, the study did not find a statistically significant effect on the aspect of environmental sustainability. This implies that the implementation of ethical leadership practises has a positive impact on both the social and financial performance of SMEs.

In a study conducted by Fatoki (2021) in South Africa, the authors explored the impact of sustainable leadership on many facets of SP, including social, economic, and environmental dimensions. The study revealed a relationship between sustainable leadership and SP, indicating a significant impact on social, financial, and environmental dimensions. This implies that the implementation of sustainable leadership practises has a positive impact on performance in these specific areas. In a study conducted by Foo et al. (2021) in Malaysia, the focus was on manufacturing

companies. The study investigates the relationship between leadership and management and SP within the industrial sector of Malaysia. The study also investigated the mediating influence of green and lean practises and Guanxi. The results of the study suggest that there is a notable influence of leadership and management practises on green and lean practises as well as Guanxi. These factors, in turn, serve as intermediaries in the relationship between leadership and management and SP. In essence, the implementation of efficient leadership and management strategies plays a pivotal role in fostering the integration of environmentally conscious and resource-efficient practises, as well as cultivating robust corporate partnerships, therefore augmenting long-term sustainability outcomes.

Erin et al. (2022) examined the listed companies in Nigeria. The study examined the status of sustainability reporting among listed firms in Nigeria, with a specific emphasis on SD disclosure and reporting. The results of the study indicate that the level of transparency and reporting on SD by publicly traded corporations in Nigeria is inadequate. These firms exhibit a deficiency in providing full reporting and disclosure of sustainability-related information.

Hu et al. (2022) investigates the effects of green motivation on green creative performance and green creative process engagement within the context of Pakistan's security and exchange commission. the results of the study indicate that there is a significant relationship between green motivation and both green creative performance and green creative process engagement. moreover, the mediation of green creative process engagement is shown in the relationship between green motivation and green creative performance. This implies that individuals who are driven to participate in

eco-friendly behaviours have enhanced green creative performance by actively engaging in such practises.

Mansoor et al. (2022) investigated the impact of green management initiatives and green servant leadership on green performance within the manufacturing sector in Pakistan. the research findings indicate that the implementation of green management initiatives and the adoption of green servant leadership both provide significant outcomes in terms of green performance. Moreover, green servant leadership has a mediating role in the relationship between green management initiatives and green performance, suggesting that this particular leadership approach has a positive impact on environmental performance.

Shaukat et al. (2022) assessed the association between "sustainable project management" and "project success". Additionally, the study explored the moderating effects of stakeholder engagement and team building. the study revealed that the implementation of sustainable project management practises had a beneficial impact on the overall success of projects. nevertheless, it was shown that the influence of stakeholder engagement and team building on this impact was not significant, indicating that the association between sustainable project management and project success stays unchanged regardless of the extent of stakeholder engagement and team building.

Kafetzopoulos and Gotzamani (2022) conducted a study in Greece with a group of firms. The study revealed that entrepreneurial leadership has an impact on economic SP, whilst TL and TSL have an influence on the social and environmental aspects of

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SP. Furthermore, it has been determined that the implementation of talent management practises has a substantial impact on the influence of SP. Sarfraz et al. (2022) found that there is an important association between innovation capability, green process innovation, green product innovation, and SP. Furthermore, the impact of digital leadership on SP is evident, however it does not act as a moderating factor in the association between innovation capability and SP.

Khaw et al. (2022) investigates the impact of digital leadership on SP based on an analysis of 51 papers. Digital leadership encompasses the use of leadership principles within the framework of digital transformation. The analysis underscored the crucial significance of digital leadership in augmenting SP. Additionally, this study emphasised the need of doing leadership research in diverse places, since cultural variations might have an influence on the efficacy of leadership.

Alshura et al. (2023) examined the influence of authentic leadership on SP within Jordan's custom service sector, finding that authentic leadership positively affects SP. Authentic leaders, characterized by transparency, ethical behavior, and genuine relationships, are able to inspire employees to perform at higher levels, thus enhancing sustainability outcomes. Furthermore, the study highlighted the mediating role of knowledge ability in this relationship. The findings suggest that authentic leaders not only directly improve SP but also enhance employees' knowledge abilities, which further supports sustainability. Suriyankietkaew (2023) focused on the determinants of leadership that influence business sustainability in SMEs in Thailand. The study identified key leadership traits—such as trust, innovation, and a shared vision—as crucial drivers of both financial sustainability and stakeholder satisfaction, two core

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components of business sustainability. In Nigeria, Ogaga et al. (2023) investigated the role of ethical leadership in promoting SP within the agricultural sector. The study revealed that ethical leadership has a positive impact on SP. However, the study also found that this relationship was moderated by environmental dynamics, suggesting that external factors, such as market volatility or regulatory changes, influence the strength of ethical leadership's impact on sustainability.

Shin et al. (2023) conducted a study in South Korea across multiple industries. The research found that digital leadership, characterized by leaders who promote digital transformation and foster a culture that embraces digital innovation, has a significant positive effect on both digital culture and employees' digital capabilities. These, in turn, positively influence OP, with employees' digital skills playing a crucial role in enhancing the organisation's ability to adapt and innovate in a rapidly evolving digital landscape. Similarly, Alzoraiki et al. (2023) explored the impact of TL on sustainable teaching performance in the education sector in Malaysia. The study revealed that teacher commitment played a mediating role between TL and sustainable teaching performance, highlighting the importance of leadership that motivates and inspires educators to achieve long-term teaching success. The research emphasizes that leadership styles which focus on individual development, motivation, and professional commitment are essential for achieving sustainable educational outcomes, particularly in environments where teacher engagement is crucial to performance.

Zahari et al. (2024) examined the role of ethical leadership and ethical culture in promoting sustainability within Malaysia's public sector. Their findings suggest that both ethical leadership and a strong organisational ethical culture significantly enhance

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sustainability efforts. Leaders who exhibit ethical behavior and promote ethical standards within the organisation foster a work environment conducive to sustainable practices. This study highlights the importance of ethical leadership in public sector organisations, where sustainability is often tied to governance, transparency, and long-term policy outcomes. Mansoor and Hussain (2024) investigated the influence of knowledge-oriented leadership on sustainable service quality in Pakistan's higher education sector. Their findings suggest that organisational innovation and psychological empowerment partially mediated the relationship between knowledge-oriented leadership and sustainable service quality. Leaders who prioritize knowledge sharing, innovation, and employee empowerment create an environment conducive to high-quality, sustainable service outcomes.

Lastly, Zacher et al. (2024) conducted a review focusing on the growing interest in the relationship between leadership and environmental sustainability. Their review synthesized existing literature on the topic and identified a clear trend towards leadership that prioritizes environmental outcomes. Leaders who emphasize sustainability goals and integrate environmental considerations into their decision-making processes are increasingly seen as essential to achieving long-term organisational success in a world that demands more sustainable practices.

The thorough examination of several research on leadership styles and their influence on SP emphasizes the crucial significance of leadership in promoting organisational sustainability and achieving success. TL is a powerful and constant influence that motivates and inspires teams to achieve innovation, operational excellence, and financial wealth. Although TSL has the potential to improve SP, it is yet a relatively

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unexplored field. The significance of TL is evident in a world that prioritizes environmental consciousness, highlighting the need for leadership that promotes eco-friendly practices. These results highlight the diverse impact of leadership on SP, providing significant insights for firms aiming to navigate the sustainability environment effectively. Table 2.1 shows a summary of the reviewed studies. Where I.V. refers to independent variables, and D.V refers to dependent variable.

Table 2. 1: Summary of the Reviewed Studies

Author/year	Country	Industry	I.V	D.V	Med/mod	Theory	Method	Result
(Manz et al., 2011)	US	Manufacturing	• Shared leadership approach	SP	Shared values (Mod)	Case study	Interview with individuals and group	The findings of the study is a conceptual framework that proposed a direct effect between shared leadership approach and SP. It also proposed shared values as a moderator between leadership approach and SP.
(Overstreet et al., 2013)	North America	Mother carries	• TL • Organisational innovativeness • Operational performance	Financial performance	Organisational innovativeness Operational performance	Dynamic capability theory	154 respondents	TL affected organisational innovativeness, operational performance, and financial performance. Organisational innovativeness and operational performance have positive effect on financial performance and mediated the effect of TL on financial performance.
(Chen et al., 2014)	Taiwan	Manufacturing	• Green TL	Green performance	Green mindfulness Green self-efficacy	Nil	262 respondents	Green TL affected positively the green performance. Green mindfulness and green self-efficacy mediated the effect of green TL on green performance.
(Pellicano et al., 2014)	Italy	Banking	• Social media • Stakeholder engagement	SD	Nil	Nil	Case study	Social media increase the stakeholder engagement which in turn affected the SD.
(Jiang et al., 2017)	China	Construction	• TL	Employee SP	OCB	TL theory Member-leaders exchange	389 respondents	TL affected positively the OCB and SP. OCB mediated the effect of TL on SP.
(Kowo & Akinbola, 2019)	Nigeria	SMEs	• Strategic planning • Leadership practices	Profitability Return on investment Workers' motivation	Nil	Nil	263 respondents	Strategic planning, leadership practices, social responsibility, and strategy implementation affected positively the organisational agility.

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Author/year	Country	Industry	I.V	D.V	Med/mod	Theory	Method	Result
			• Social responsibility • Strategy implementation	Organisational objectives				
(Burawat, 2019)	Thailand	SMEs	• TL • Lean manufacturing	Sustainability performance	Lean manufacturing	Nil	Mixed, 589 respondents and 40 interview	TL and lean manufacturing affected sustainability performance. In addition, lean manufacturing mediated the effect of TL on sustainability performance.
(Pham & Kim, 2019)	South Korea	Construction	• Environmental practices • Economic practices • Social practices	Sustainability performance	Leadership competences	Nil	137 respondents	Environmental, economic, and social practices have a positive effect on sustainability performance. Leadership competence strengthen the positive effect of environmental practices but not social or economic practices on sustainability performance.
(Ojo & Fauzi, 2020)	Malaysia	Technological companies	• Environmental awareness • Leadership commitment • Green IT belief • Green IT attitude • Engagement in Green IT practices	Environmental IT performance	Engagement in Green IT practices	Theory of planned behaviour	333 respondents	Environmental awareness and leadership commitment affected positively the green IT belief and green IT attitude. Green IT attitude affected engagement in green IT practices which in turn affected the environmental IT performance. Engagement in green IT practices mediated the effect of green IT attitude on environmental IT performance.
(Sulasmi et al., 2020)	Indonesia	Industrial	• Sustainable leadership	SP	• Psychological safety • Structural empowerment	Theory of sustainable leadership	338 respondents	Sustainable leadership affected psychological safety, structural empowerment, and organisational learning as well as the SP. On the

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Author/year	Country	Industry	I.V	D.V	Med/mod	Theory	Method	Result
				• Organisational learning				other hand, the psychological safety, structural empowerment, and organisational learning mediated the effect of sustainable leadership on SP.
(Q. Iqbal et al., 2020)	Asian countries	SMEs	• Sustainable leadership	SP	• Psychological empowerment • Organisational learning	RBV, Dynamic capability theory Job demand resource model	369 SMEs	Sustainable leadership affected SP. The higher level of psychological empowerment will result in a higher level of sustainable leadership on SP via organisational learning.
(Nor-Aishah et al., 2020)	Malaysia	SMEs	• Entrepreneurial leadership	SP Environmental Social Economic	Entrepreneurial Bricolage	Upper Echelon Theory (UET) Effectuation Theory (ET)	146 respondents	Economic and social are affected by entrepreneurial leadership while it has no effect on environmental. Entrepreneurial Bricolage did not moderate the effect of entrepreneurial leadership on SP.
(Pantouvakis & Vlachos, 2020)	Greece	Maritime	• Talent • Leadership	SP	Organisational culture	RBV Resource-dependence theory Conservation of resource theory	308 respondents	Talent affected SP more than leadership. Organisational culture moderated the effect of talent-sustainable but not leadership-sustainable.
(Fatoki, 2020)	South Africa	SMEs	• Ethical leadership	SP Social Financial Environmental	Nil	Nil	148 SMEs	Ethical leadership affected the social and financial SP but did not affect the environmental performance.
(Tuan, 2021)	Vietnam	Tourism	• Environmental specific servant leadership	Green climate Green crafting Individual green performance	Green climate Green crafting	conservation of resources (COR) theory	892 employee 144 manager	Green climate and green crafting mediated the effect of servant leadership on team and individual performance.

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Author/year	Country	Industry	I.V	D.V	Med/mod	Theory	Method	Result
				Team green performance				
(Fatoki, 2021)	South Africa	Hospitality firms	• Sustainable leadership	SP Social Financial Environmental	Nil	Stakeholder theory Resource based view Shared value concept	192 respondents	There is a positive effect of sustainable leadership on social, financial and environmental SP.
(Foo et al., 2021)	Malaysia	Manufacturing companies	• Leadership and management	SP Economic Environmental Social	Green and lean practices Guanxi	Resource based view	160 respondents	Leadership and management affected green and lean practices as well as guanxi which in turned mediated the effect of leadership and management on SP.
(Q. Iqbal & Ahmad, 2021)	Pakistan	SMEs	• Sustainable leadership	SP	Organisational learning	Natural resource based view Dynamic capability	369 SMEs	Sustainable leadership affected SP and organisational learning which in turn mediated the effect of sustainable leadership on SP.
(Erin et al., 2022)	Nigeria	Listed companies	• SD disclosure and reporting	SD	Nil	Stakeholder theory, legitimacy theory, and institutional theory	Mixed method; questionnaire and content analysis	SD is poor. There is weak reporting and disclosure among listed companies.
(Dai et al., 2022)	China	Internet service industry	• Corporate social responsibility • TSL • TL	SP	OC (Med) Sustainable entrepreneurship	Green theory	540 respondents	Corporate social responsibility, TL and TSL affected OC and SP. OC mediated the effect of TL and TSL on SP while sustainable entrepreneurship moderated the effect of TSL and TLs on SP.
(Udin et al., 2022)	Indonesia	Milling	• TSL	Innovative work behaviour	Knowledge sharing WE	Nil	107 respondent	TSL affected knowledge sharing and WE but not innovative work behaviour. Knowledge sharing and WE affected innovative work behaviour. Knowledge sharing and

Author/year	Country	Industry	I.V	D.V	Med/mod	Theory	Method	Result
								WE mediated the effect of transitional leadership on innovative work behaviour.
(Hu et al., 2022)	Pakistan	Security and exchange commission	• Green motivation	Green creative performance	Green creative process engagement	Green theory Conservation of Resource theory	311 respondents	Green motivation affected green creative performance and green creative process engagement which in turn mediated the effect of green motivation on green creative performance.
(A. Mansoor et al., 2022)	Pakistan	Manufacturing	• Green management initiatives	Green performance	Green servant leadership	Social information processing theory Resource based view	272 respondents	Green management initiatives and green servant leadership affected green performance. Green servant leadership mediated the effect of green management initiative on green performance.
(Shaukat et al., 2022)	Pakistan	Education	• Sustainable project management	Project success	Stakeholder engagement Team building	Stakeholder theory	323 respondents	Sustainable project management affected project success. Stakeholder engagement and team building did not moderate the effect.
(Althnayan et al., 2022)	Saudi Arabia	Petrochemical companies	• Environmental TL	Organisational SP	Work passion (mod) Environmental OCB	Social learning theory Stakeholder theory	240 respondents	Environmental TL affected organisational SP. Work passion moderated this effect and environmental OCBr mediated this effect. There is a mediation moderation effect.
(Kafetzopoulos & Gotzamani, 2022)	Greece	A group of firms	Talent management • Talent management • Talent attracting • Talent development • Talent retention Leadership style	Firm SP Economic Social Environmental	Environmental dynamism	Resource based view Upper echelons theory	480 respondents	Entrepreneurship leadership affected economic SP while TL and TSL affected the social and environmental SP.

Author/year	Country	Industry	I.V	D.V	Med/mod	Theory	Method	Result
			• Authoritative leadership • Entrepreneurial leadership • TL • TSL					
(Sarfraz et al., 2022)	Pakistan	Manufacturing	Innovation capabilities Green process innovation Green product innovation Digital leadership	SP	Digital leadership	Nil	299 respondents	Innovation capability, green process and product innovation affected the SP. Digital leadership affected SP but did not moderate the effect of innovation capability on SP.
(Khaw et al., 2022)	Review	Review	Digital leadership	SP	Nil	Nil	51 articles	Digital leadership is critical for the SP. Studies of leadership in different region are required due to the differences in culture.
(Alshura et al., 2023)	Jordan	Custom service	Authentic leadership	SP	Knowledge ability	Nil	271 employees	Authentic leadership affected positively SP and knowledge ability mediated this effect.
(Suriyankietkaew, 2023)	Thailand	SMEs	Leadership determinants	Business sustainability	Nil	Nil	280 responses	Determinants of leadership such as trusting, innovation, and shared vision affected the financial sustainability and stakeholder satisfaction which are dimension of business sustainability.
(Ogaga et al., 2023)	Nigeria	Agriculture	Ethical leadership	SP	Environment dynamics	Nil	215 responses	Ethical leadership affected positively SP. Environment dynamics moderated the effect of ethical leadership on SP.
(Shin et al., 2023)	South Korea	Several industries	Digital leadership Digital culture Employees' digital capability	OP	Digital culture Employees' digital capabilities	RBV	149 employees	Digital leadership affected digital culture and employees' digital capabilities as well as OP. Digital

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Author/year	Country	Industry	I.V	D.V	Med/mod	Theory	Method	Result
								culture and employees' digital capabilities affected OP.
(Alzoraiki et al., 2023)	Malaysia	Education	TL	Sustainable teaching performance	Teacher commitment	Nil	374 employees	TL affected sustainable teaching performance. The teacher commitment mediated the effect of TL on sustainable teaching performance.
(Zahari et al., 2024)	Malaysia	Public sector	Ethical culture Leadership	Sustainability	Nil	Organisational based theory	154 public sector employees	Ethical culture and ethical leadership affected sustainability.
(T. Mansoor & Hussain, 2024)	Pakistan	Higher education	Knowledge oriented leadership	Sustainable service quality	Organisational innovation Psychological empowerment	Nil	306 faculty member	Knowledge oriented leadership affected sustainable service quality. Organisational innovation and psychological empowerment mediated partially the effect.
(Zacher et al., 2024)	Review	Review	Leadership	Environmental sustainability	Nil	Nil	Review	There is a growing interest in the relationship between leadership and environmental sustainability.

Based on Table 2.1, a review of the variables of this study is conducted. The review includes the link between leadership style and SP, the mediating role of WE, and the moderating role of OC.

2.6.1 Leadership and Sustainable Performance

Prior literature as shown in Table 2.1 explored the link between several styles of leadership and the SP. For instance, the study of Manz et al. (2011) investigated the effect of shared leadership approach and SP of manufacturing companies in US. The finding is a proposed model that predicted the effect of shared leadership style on SP to be positive and significant. In North America and among mother carries, Overstreet et al. (2013) investigated the effect of TL on financial performance. The findings showed that TL affected organisational innovativeness, operational performance, and financial performance. The green TL was investigated in the study of Chen et al. (2014) in Taiwanese manufacturing companies. The study found that green TL affected positively the green performance. Green mindfulness and green self-efficacy mediated the effect of green TL on green performance.

Jiang et al. (2017) tested the effect of TL on employee SP of Chinese construction companies. The findings showed that TL affected positively the OCB and SP. OCB mediated the effect of TL on SP. Leadership practices among SMEs in Nigeria and their impact on organisational agility was examined by Kowo and Akinbola (2019). The findings showed that leadership practices affected positively the organisational agility.

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Among SMEs also in Thailand, Burawat (2019) tested the effect of TL on SP. The findings showed that TL affected SP. In addition, lean manufacturing mediated the effect of TL on SP. In South Korea, Pham and Kim (2019) found that leadership competence strengthen the positive effect of environmental practices but not social or economic practices on SP. In Malaysia and among technological companies, the effect of leadership commitment on environmental IT performance was examined. The findings showed that leadership commitment affected positively the green IT belief and green IT attitude. Green IT attitude affected engagement in green IT practices which in turn affected the environmental IT performance (Ojo & Fauzi, 2020).

Sulasmi et al. (2020) in Indonesia explored the role of sustainable leadership on SP. The findings showed that sustainable leadership affected psychological safety, structural empowerment, and organisational learning as well as the SP. In the study of Iqbal et al. (2020), the effect of sustainable leadership on SP of SMEs in Asian countries was researched. The findings showed that sustainable leadership affected SP. Among SMEs also in Malaysia, Nor-Aishah et al. (2020) tested the effect of entrepreneurial leadership on SP. The finding showed that Economic and social are affected by entrepreneurial leadership while it has no effect on environmental.

Pantouvakis and Vlachos (2020) investigated the impact of leadership on SP among maritime in Greece. The findings showed that leadership affected the SP. Fatoki (2020) tested the influence of ethical leadership on SP. The findings showed that ethical leadership affected positively the social and financial SP but did not affect the environmental performance. Tuan (2021) explored the effect of environmental specific servant leadership on green crafting green climate and green crafting mediated the

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effect of servant leadership on team and individual performance. Fatoki (2021) examined the effect of sustainable leadership on SP. The findings showed that there is a positive effect of sustainable leadership on social, financial and environmental SP.

Foo et al. (2021) investigated the impact of leadership and management and SP among Pakistani SMEs. The findings showed that leadership and management affected positively SP. Iqbal and Ahmad (2021) also examined the effect of sustainable leadership on SP and found that sustainable leadership affected SP and organisational learning which in turn mediated the effect of sustainable leadership on SP.

Among the few studies that have investigated the both style of leadership which include TL and TSL is the study of Dai et al. (2022) in internet service industry in China. The findings showed that TL and TSL affected OC and SP. OC mediated the effect of TL and TSL on SP while sustainable entrepreneurship moderated the effect of TSL and TL on SP. Green management initiatives affected positively the green performance while green servant leadership affected positively the green performance (A. Mansoor et al., 2022).

Althnayan et al. (2022) in Saudi Arabian petrochemical companies tested the environmental TL and its impact on organisational SP. The findings showed that environmental TL affected organisational SP. Kafetzopoulos and Gotzamani (2022) explored the effect of talent management and leadership style which includes the TL and TSL on the firm SP of companies in Greece. The findings showed that entrepreneurship leadership affected economic SP while TL and TSL affected the social and environmental SP. Digital leadership and its impact on SP was investigated

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in the study of Sarfraz et al. (2022) in Pakistan. The findings showed that digital leadership affected positively the SP. In a review study conducted by Khaw et al. (2022), the study reviewed the relationship between digital leadership and SP. The findings showed that digital leadership is critical for the SP. Studies of leadership in different region are required due to the differences in culture.

Alshura et al. (2023) explored the impact of authentic leadership on SP in the customer service sector in Jordan. The authors found that authentic leadership positively affected SP, with knowledge ability acting as a mediating factor. In Thailand, Suriyankietkaew (2023) examined how leadership determinants like trust, innovation, and shared vision influence business sustainability, focusing specifically on financial sustainability and stakeholder satisfaction among SMEs. The study highlights the importance of leadership attributes in shaping sustainable outcomes. Ogaga et al. (2023) in Nigeria's agricultural sector found that ethical leadership positively influenced SP, with environmental dynamics moderating the relationship.

Shin et al. (2023) examined the role of digital leadership in fostering digital culture and enhancing employees' digital capabilities, ultimately improving OP in South Korea. Digital culture and employees' digital capabilities were found to mediate the relationship between digital leadership and performance. In Malaysia, Alzoraiki et al. (2023) found that TL was shown to have a significant positive effect on sustainable teaching performance in the education sector, with teacher commitment mediating this effect. Zahari et al. (2024) explored how ethical culture and ethical leadership affect sustainability within Malaysia's public sector, using organisational-based theory. The

findings indicate that both ethical culture and leadership are crucial for fostering sustainability.

In the context of higher education in Pakistan, Mansoor and Hussain (2024) found that knowledge-oriented leadership positively affected sustainable service quality, with organisational innovation and psychological empowerment acting as partial mediators. The study's focus on knowledge-oriented leadership emphasizes the role of leaders in fostering a culture of continuous learning and innovation, which is critical for sustaining service quality in educational institutions. Zacher et al. (2024) conducted a review on the growing interest in the relationship between leadership and environmental sustainability. The review highlights the evolving landscape of leadership research, which increasingly recognizes the need for leaders to address environmental concerns as part of their organisational responsibilities.

Overall, these studies highlight the diverse ways in which different leadership styles—ranging from ethical to transformational and digital—affect various dimensions of sustainability, whether it be OP, environmental sustainability, or service quality. On the other hand, the role of the TL and TSL was explored in a few studies. Most of the reviewed studies were conducted in developed countries or country such as Pakistan and the majority have explored the SP in the SMEs and manufacturing sector.

2.6.2   Work Engagement as a Mediator

As shown in Table 2.1, few studies examined the WE in general and fewer explored its mediating role. For instance, in Italy, the study of Pellicano et al. (2014) examined

the direct effect of stakeholder engagement on the SD and found that stakeholder engagement affected positively the SD. Ojo and Fauzi (2020) in Malaysia explored the effect of engagement in green IT practices and the environmental IT performance. The authors also examined the mediating role of engagement in green IT practices. The findings showed that engagement in green IT practices mediated the effect of green IT attitude on environmental IT performance.

In line with the objective of this study to examine the effect of leadership style on WE and to examine the mediating role of WE, the study of Udin et al. (2022) explored the effect of TSL on WE and it also examined the mediating role of WE among the TSL and innovative work behaviour. The findings showed that TSL affected positively the WE while WE mediated the effect of TSL on innovative work behaviour. Hu et al. (2022) in Pakistan found that the effect of green motivation on green creative performance was mediated by the green creative process engagement. In Pakistan also, Shaukat et al. (2022) found that sustainable project management and its effect on project success was mediated by the stakeholder engagement.

Overall, it can be seen from the review above that the role of WE as a mediator in the context of SP was explored by a few studies. In this study, the WE is explored. The effect of TL and TSL on WE is explored. In addition, the mediating role of WE between TSL and TL, and SP is explored.

2.6.3 Organisational Commitment as a Moderator

Few studies tested the moderating role of OC. Ojo and Fauzi (2020) investigated the leadership commitment and its impact on environmental IT performance. The findings showed that leadership commitment affected positively the environmental IT performance. Dai et al. (2022) searched the mediating role of OC between TSL and TL, and SP. The findings showed that OC mediated the effect of TL and TSL on SP.

Alzoraiki et al. (2023) found that TL positively influenced sustainable teaching performance, and teacher commitment played a significant mediating role. This highlights the importance of commitment in ensuring that leadership practices translate into sustainable organisational outcomes, particularly in educational settings. Therefore, as can be seen in Table 2.1, the usage of the OC as a moderator was not found. This study and based on the issues identified in the problem statement which are related to desire of employees to leave their current job, the study predicted that OC is an essential variable in the context of SP and proposed the OC as a moderating variable.

2.7 Gap Analysis

Based on the review that has been conducted in Table 2.1, there are several gaps that can be filled by this study. The first gap is related to the location of the study. Most of previous studies were conducted in developed countries such as US (Manz et al., 2011; Overstreet et al., 2013), Italy (Pellicano et al., 2014), Greece (Kafetzopoulos & Gotzamani, 2022; Pantouvakis & Vlachos, 2020) or emerging economies such as Taiwan (Chen et al., 2014), China (Dai et al., 2022; Jiang et al., 2017), South Korea

(Pham & Kim, 2019), Malaysia (Ojo & Fauzi, 2020; Foo et al., 2021; Nor-Aishah et al., 2020), and developing countries such as Pakistan (Hu et al., 2022; A. Mansoor et al., 2022; Sarfraz et al., 2022; Shaukat et al., 2022). On the other hand, studies that are related to UAE is still limited. Therefore, this study examines the SP in UAE.

The second gap is related to the industry. As shown in Table 2.1, the majority of previous studies examined the SP among either manufacturing companies (Chen et al., 2014; Foo et al., 2021; A. Mansoor et al., 2022; Manz et al., 2011; Sarfraz et al., 2022; Sulasmi et al., 2020) or SMEs (Burawat, 2019; Fatoki, 2020; Q. Iqbal et al., 2020; Kowo & Akinbola, 2019; Nor-Aishah et al., 2020). All the reviewed studies were conducted in private sector while few studies examined the SP among police force in the public sector. Therefore, this study examines the SP in public sector among police forces in the "Ministry of Interior Affairs" in UAE.

The third gap is related to the variables. The majority of previous studies examined the sustainable leadership and its effect on SP (Fatoki, 2021; Q. Iqbal et al., 2020; Q. Iqbal & Ahmad, 2021; Sulasmi et al., 2020) other studies examined other style of leadership such as shared leadership (Manz et al., 2011), entrepreneurial leadership (Nor-Aishah et al., 2020), ethical leadership (Fatoki, 2020), environmental specific servant leadership (Tuan, 2021), digital leadership (Khaw et al., 2022; Sarfraz et al., 2022). However, the TL and TSL were examined in limited studies. Therefore, this study examines the effect of TL and TSL on WE and SP.

In term of the mediator and moderator, previous studies deployed several type of mediator and moderator. The prior literature examined the moderating role of shared

values (Manz et al., 2011) organisational innovativeness and operational performance (Overstreet et al., 2013), green mindfulness and green self-efficacy (Chen et al., 2014), OCB (Jiang et al., 2017), lean manufacturing (Burawat, 2019), leadership competences (Pham & Kim, 2019), engagement in green IT practices (Ojo & Fauzi, 2020), psychological safety, structural empowerment, and organisational learning (Q. Iqbal et al., 2020; Q. Iqbal & Ahmad, 2021; Sulasmi et al., 2020), entrepreneurial bricolage (Nor-Aishah et al., 2020), organisational culture (Pantouvakis & Vlachos, 2020), green climate and green crafting (Tuan, 2021). As can be seen, the WE has examined in limited studies as well as the OC. Therefore, this study examines the mediating role of WE and the moderating role of OC.

In term of theories, the prior literature examined the relationship among the variables using several theories such as dynamic capability theory and resource based view (Fatoki, 2021; Q. Iqbal et al., 2020; Kafetzopoulos & Gotzamani, 2022; A. Mansoor et al., 2022; Overstreet et al., 2013; Pantouvakis & Vlachos, 2020), stakeholder theory (Althnayan et al., 2022; Shaukat et al., 2022). Few of the previous studies deployed the SET or the TL and TSL theory. This study deploys these theories to explain the relationship among the variables.

The method of previous studies are also one of the gaps in this study. Prior literature examine the SP using interview (Manz et al., 2011), mixed method (Burawat, 2019; Erin et al., 2022). In addition, previous studies used less than 200 respondents for examining the hypotheses of their studies (Fatoki, 2020, 2021; Foo et al., 2021; Nor-Aishah et al., 2020; Overstreet et al., 2013; Pham & Kim, 2019; Udin et al., 2022). Researchers such as Kline (2015) suggested that the minimum sample size to use

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structural equation model (SEM) is above 200. Therefore, this study collects more than

200 responses to meet the assumption of SEM.

2.8   Proposed Framework

Based on the review of the study presented in Table 2.1 and based on the theory of

leaderships such as the TL and TSL theories as well as the SET, this study proposes

that the effect of leadership styles (TL and TSL) on WE and SP are positive. The study

also proposed that the effect of WE on SP is positive. WE is proposed to mediate the

effect of leadership style on SP while OC is expected to moderate the effect of

leadership style on SP. Figure 2.3 shows the proposed framework of this study.
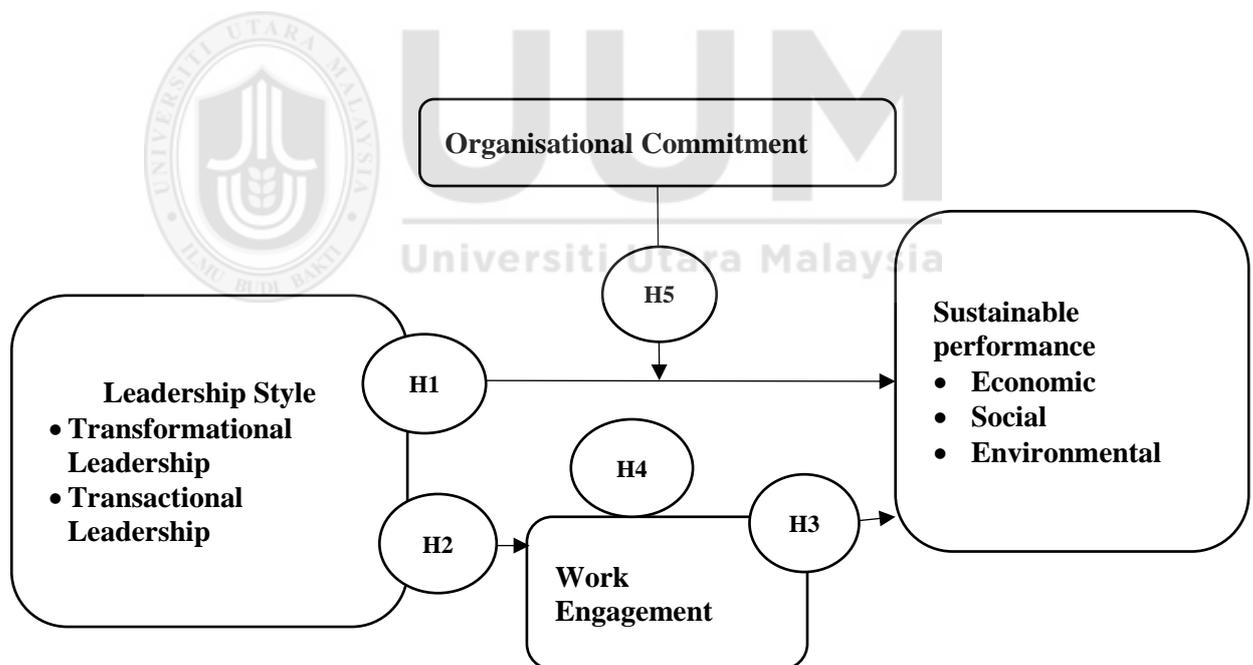
Figure 2. 3: Proposed Framework

Based on the framework proposed in Figure 2.3, the hypotheses of this study are listed

and discussed as follows:

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2.8.1 TL, Work Engagement and Sustainable Performance

Several studies have investigated the impact of TL on both WE and SP, shedding light on its multifaceted effects in various contexts. One such study by Overstreet et al. (2013) delved into the realm of TL's influence and discovered its far-reaching effects. It revealed that TL not only affected organisational innovativeness but also made substantial contributions to operational performance and financial performance. This suggests that TL's style can enhance multiple facets of organisational functioning, ultimately leading to improved performance on various fronts.

In a distinct but environmentally conscious domain, Chen et al. (2014) explored the influence of Green TL. Their findings indicated an important association between Green TL and green performance. This study underscores TL's potential to drive sustainability initiatives and promote environmentally responsible practices within an organisation. Jiang et al. (2017) extended the scope of TL's impact by uncovering its positive effects on OCB and SP. This highlights TL's role in fostering a positive organisational culture and, subsequently, contributing to broader performance outcomes. Furthermore, Burawat (2019) examined TL's impact on SP, demonstrating its relevance in the context of sustainable business practices. Dai et al. (2022) expanded on this by revealing that TL influences both OC and SP, indicating its significance in shaping the overall commitment and performance of an organisation.

Althnayan et al. (2022) added to the growing body of evidence by identifying an important association between environmental TL and organisational SP within petrochemical companies. This underscores the role of TL in influencing sustainability

outcomes in specific industries. In a broader organisational context, Kafetzopoulos and Gotzamani (2022) found that TL affects firm SP.

In UAE, the effect of TL on team performance was found positive and significant (Rao & Kareem Abdul, 2015). TL also had a significant impact on the environmental sustainability as shown in the study of Faqera and Manaf (2024) and other outcome such as employee performance (Alshehhi et al., 2019) and performance of organisations (Sobaih et al., 2022). This research emphasizes the widespread applicability of TL's transformative qualities in enhancing performance across various organisational dimensions. Building upon these findings, this study seeks to investigate the impact of TL on both WE and SP within the context of the police force in the UAE. Based on the existing literature and the expected positive influence of TL, the following hypotheses are formulated:

H1: TL affects positively the SP.

H2: TL affects positively the WE.

2.8.2   TSL, Work Engagement, and Sustainable Performance

There is a scarcity of scholarly studies that have examined the effects of TSL on SP and WE. Nevertheless, the extant literature exploring this domain has yielded significant findings about the possible ramifications of TSL. Dai et al. (2022) performed noteworthy research that explored the relationship between TSL and its impact on OC and SP. The findings of this study revealed substantial impacts of TSL on both OC and SP, suggesting that TSL plays a crucial role in influencing an

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organisation's level of dedication and overall effectiveness. The aforementioned results highlight the significance of taking into account TSL within the framework of OP.

In a recent study conducted by Kafetzopoulos and Gotzamani (2022), they made a valuable contribution to the existing knowledge on the influence of TSL by uncovering a noteworthy and statistically significant association between TSL and business SP. This research provides more evidence to underscore the potential of TSL in making a beneficial impact on OP, with a specific focus on sustainability. Although past study has mostly focused on TL, there has been some recognition of the significance of TSL. Several research have investigated the mediating effect of WE on the association between TSL and CWB. Udin et al. (2022) conducted a study to examine the impact of TSL on WE and its consequent influence on CWB. The results of their study provided evidence that TSL does have an effect on both WE and inventive work behaviour. This highlights the significance of taking into account the effects of TSL on employee engagement and the outcomes related to innovation.

In UAE, the TSL has a significant influence on the virtual team performance of governmental organisations (Al Ameri, 2019). It also affected the performance of private and public organisations in UAE (Alavi et al., 2021). Abbas (2024) found that TSL affected positively the firm sustainable operations. Building upon the knowledge derived from previous research endeavours, the present study endeavours to further the comprehension of the impacts of TSL on both WE and SP within the distinctive milieu of the police force in the UAE. Although previous research has not given as much emphasis on TSL as it has to TL, it is crucial to acknowledge the significant

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impact that TSL may have on employee engagement and the long-term viability of an organisation. Based on the extant literature and the expected beneficial effects of TSL, this research study posits the following hypotheses:

H3: TSL affects positively the SP.

H4: TSL affects positively the WE.

2.8.3 Work Engagement and SP

The present corpus of research has shown little attention to the examination of the direct correlation between WE and SP. However, it is important to note that there have been significant investigations into these relationships, which have provided insights into the possible influence of WE on SP. Pellicano et al. (2014) performed a study in Italy to investigate the phenomenon of stakeholder involvement and its impact on SD. The results obtained from the conducted research demonstrated a noteworthy and favourable impact of stakeholder involvement on the promotion of SD. This finding emphasises the need of actively involving several stakeholders in order to effectively promote sustainability initiatives inside organisations.

In their study done in Malaysia, Ojo and Fauzi (2020) investigated the effects of involvement in green IT practises on environmental IT performance. The researchers' investigation revealed a noteworthy relationship between the adoption of green IT practises and the improvement of environmental IT performance. This implies that actively participating in environmentally sensitive behaviours might result in favourable consequences in terms of performance within certain areas.

Moreover, the research done by Udin et al. (2022) explored the correlation between WE and CWB. The results of their study shed light on the beneficial impact of WE on CWB, suggesting that individuals who have a high level of engagement in their job are more likely to display innovative behaviours. This statement emphasises the concept that workers who are actively involved and committed may make a substantial contribution to an organisation's ability to innovate.

In the framework of this study, which centres on the police force in the UAE, it is posited that the involvement will have a significant impact on fostering good influence inside the organisation. The fundamental premise is predicated on the notion that police force personnel who are highly engaged are more inclined to exhibit heightened dedication to sustainable practises and overall organisational success. Based on the knowledge gained from prior research and taking into consideration the specific circumstances of the UAE's police force, this study puts forward the following hypothesis:

H5: WE affects positively the SP.

2.8.4 Mediating Role of WE

Expanding on the discourse outlined in section 2.6.2, this study proposes that WE plays a crucial role as a mediating variable in the examined interactions. The justification for positing this concept on mediation is substantiated by prior research that has highlighted the mediating function of WE in many circumstances. Prominent examples of these mediating effects have been documented in research conducted by Ojo and Fauzi (2020), Udin et al. (2022), and Hu et al. (2022).

The study undertaken by Ojo and Fauzi (2020) focused on the examination of green IT practises and their impact on the environmental performance of IT systems. The results of their study demonstrated that the adoption of green IT practises had a role in mediating the connection between individuals' attitudes towards green IT and their performance in environmental IT. This suggests that the extent of involvement in environmentally aware IT practises acted as a mediator in converting favourable sentiments towards green initiatives into measurable enhancements in environmental IT performance.

The study conducted by Udin et al. (2022) investigated the correlation between TSL and CWB, with a particular emphasis on the mediating influence of WE. The researchers' investigation revealed that the variable of "WE" had a mediating role in the association between TSL and CWB. This implies that the level of employee involvement was a significant factor in supporting the favourable influence of TSL on promoting creative behaviours among workers. In addition, Hu et al. (2022) conducted a study to examine the mediating effect of involvement in the green creative process within the framework of green innovation and green creative performance. The study results demonstrated that the participation in a green creative process had a mediating role in promoting the transformation of green innovation efforts into improved green creative performance.

Based on the aforementioned insights and taking into account the specific context of this research, which focuses on investigating the influence of TL and TSL on SP within the police force of the UAE, it is postulated that the variable of WE serves as a mediator in these associations. It is expected that the variable of WE will serve as a

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mediator in the relationship between TL and TSL, and its impact on SP. Based on the existing body of research, the following assumptions are posited:

H6: WE mediates the effect of TL on SP.

H7: WE mediates the effect of TSL on SP.

2.8.5 Organisational Commitment as a Moderator

The present literature lacks sufficient study on the role of OC as a moderator, as indicated by a thorough evaluation of past studies. However, significant findings have been obtained from the studies that have explored this particular field of research. The existing body of literature has mostly focused on the role of OC as a mediator in the relationship between TL and TSL on one side, and SP on the other. This is shown by the research undertaken by Dai et al. (2022). Moreover, OC has been investigated for its role in moderating effects in many other relevant scenarios.

The study conducted by Putra et al. (2020) provides empirical evidence about the moderating effect of OC on the association between JS and EP. The researchers' study demonstrated that OC played a crucial role in mediating the impact of work satisfaction on EP. This highlights the importance of OC as a dynamic variable that impacts the relationship between work satisfaction and concrete performance outcomes in organisational contexts.

In a separate setting, the moderating influence of OC was investigated by Mustapa and Mahmood (2016). Their study focused on the association between person-job fit and

workers' desire to resign. The findings of their research demonstrated that OC had a moderating role in this particular context, suggesting that the extent to which an individual is dedicated to their organisation might have a substantial influence on the association between person-job fit and their desire to quit their present work. This highlights the intricate significance of OC in influencing the decision-making processes and behaviours of workers within a given organisational context.

The current research examines the impact of TL and TSL on SP in the UAE police force. Additionally, the study evaluates the moderating function of OC. While prior research on this topic is few, the available data underscores the significance of including OC as a dynamic mediator in the association between leadership styles and diverse outcomes.

Based on the existing literature and the specific focus of this research on the relationship between TL and TSL in the UAE police force, the following hypothesis is put forward:

H8: OC moderates the effect of TL on SP.

H9: OC moderates the effect of TSL on SP.

2.9   Summary

This chapter undertake a comprehensive examination of the substantial body of research pertaining to the relationship between leadership styles and SP. The aforementioned examination plays a crucial role in establishing a solid foundation for

the research within the current body of knowledge, so serving as the basis for the conceptual framework of this study. The present study is grounded in a robust theoretical framework, which provides a solid foundation for the research. This theoretical framework includes key concepts that are essential for understanding and analysing the phenomenon under investigation.

The study begins by conducting a thorough examination of the theoretical framework that serves as the foundation for this research. At the core of this conceptual framework lie two important theories of leadership: TL and TSL. These theoretical frameworks provide valuable perspectives on the ways in which leaders may exert influence and impact the behaviour and performance of their teams or organisations. Furthermore, an exploration is conducted into the domain of the SET, which offers significant perspectives on the interdependent interactions that are present within the organisational settings. SET has special significance in comprehending the ways in which leadership styles can affect the SP. Therefore, this study examined it as a moderating variable.

Additionally, the study thoroughly examine the concept of SP. SP encompasses an organisation's capacity to effectively attain its aims and goals, taking into account the wider implications on economic, environmental, and social aspects. The incorporation of several perspectives is essential in order to fully grasp the comprehensive effects of various leadership styles. The study conducted a comprehensive analysis of the key factors in this research. WE is a significant concept that represents the good and rewarding mental state experienced by individuals who are highly immersed in their job. It is characterised by vigour, devotion, and absorption. The study examined the

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direct effect of TL and TSL on WE as well as the effect of WE on SP and the mediating effect of WE between TL and TSL and SP. OC pertains to the psychological connection and loyalty that workers maintain towards their organisations. A comprehensive understanding of OC is vital, since it often influences the behaviours and activities shown by individuals inside their respective organisational environments.

As the study reviewed the extensive body of literature, it identified several gaps and uncharted domains within the current study. These gaps are evident in several dimensions, such as geographical location, industrial settings, variables under examination, the involvement of mediators and moderators, sample sizes, and research approaches. The research conducted indicates that a considerable number of studies have mostly concentrated on Western settings, resulting in a notable gaps in the comprehension of the influence of leadership styles on SP in various geographical areas.

The current state of research in industry contexts has mostly focused on private sectors, resulting in a lack of comprehensive knowledge of the impact of leadership styles on SP across a wider range of industries such as the public sector. Although previous research has investigated the relationship between TL and TSL, there is a need to expand the range of variables that are addressed within the framework of leadership-performance. The investigation of mediators and moderators in influencing the association between leadership styles and SP has been insufficiently investigated in several research. The generalizability of results in some studies may be compromised due to the use of small sample numbers and restrictive research procedures.

The present study aims to provide a conceptual framework and develop hypotheses to guide the investigation. Based on the thorough examination, the study developed a conceptual framework that integrates the theoretical foundations, factors of significance, and discovered research gaps. The present study's hypotheses are grounded on this theoretical framework. The hypotheses have been carefully prepared, taking into account the insights derived from the literature research. This study examines the expected associations among leadership styles, WE, OC, and SP, while also considering the possible moderating influence of OC on these associations. The hypotheses have been formulated to serve as a framework for this study, offering a well-defined direction for the purpose of testing and substantiation.

CHAPTER 3

RESEARCH METHDOLOGY

3.1   Introduction

This chapter consists of nine sections. Section 3.1 outlines the content of this chapter followed by Section 3.2 in which the philosophical assumptions are discussed. Section 3.3 discusses the research design. The population and sampling are revealed in Section 3.4. Section 3.5 elaborates on the instrumentation while section 3.6 describes the process of validation and reliability. Section 3.7 presents a detail of the data collection and section 3.8 discusses the procedures of data analysis. Section 3.9 summarizes the chapter.
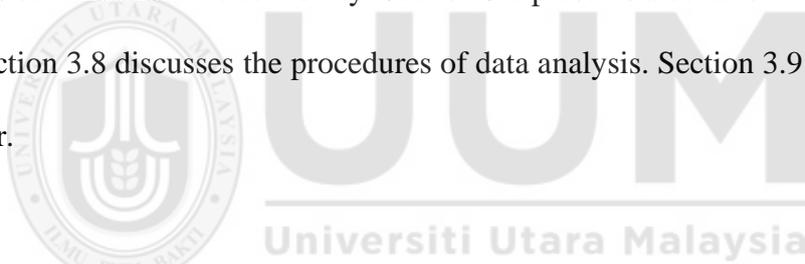
3.2   Research Design

The concept of the research onion was introduced by Saunders et al. (2007) and Saunders et al. (2019) as a comprehensive framework that outlines the fundamental steps of developing a research plan. According to Saunders et al. (2007), the metaphorical onion in question is comprised of concentric layers, each of which symbolises a more complex aspect of the research process when seen from the outermost layer. The research onion is a visual depiction of the sequential stages that a researcher must use in order to develop a methodologically sound and effective research approach (Saunders et al., 2007). By using the research onion as a framework,

researchers are able to systematically develop their research strategies, thus, introducing an organised and methodical approach to their endeavours.

The versatility of the research onion is a significant characteristic, making it a useful instrument that can be used in a wide range of research paradigms and adjusted to different research situations (Bryman, 2012). The conceptual framework's adaptability allows for its effective use across various research methodologies and its relevance in diverse research contexts. In the context of this study, Figure 3.1 has been modified from the work of Saunders et al. (2007) to align with the specific needs of the current research, highlighting the enduring significance and flexibility of the research onion as a guiding framework in the process of research planning.
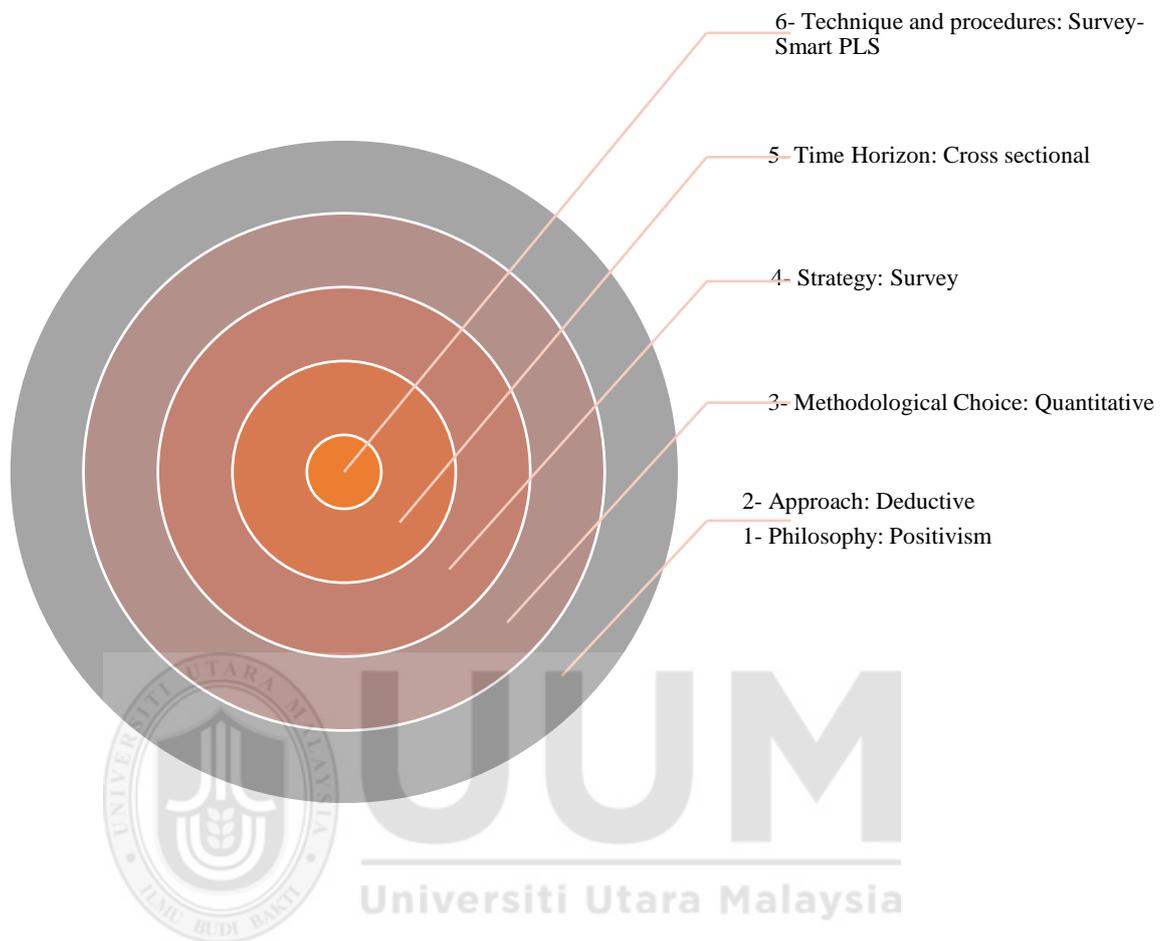
Figure 3.1: Research Onion

3.2.1 Research Philosophy

According to Kothari (2015), positivism and constructionism are identified as the two main philosophical paradigms that provide fundamental principles to guide the research process. Although there may be some variance in the terminology used to describe these frameworks, such as empiricism and interpretivism, it is typically the case that their underlying assumptions reflect similarities (Bryman, 2012). Positivism is characterised by its adherence to the notion that there exists an objective reality that is independent of the observer. The argument put out suggests that there exists a coherent interpretation of facts that beyond the limitations of individual viewpoints

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(Alvesson & Sköldberg, 2009). In contrast, constructionism posits that the underlying interpretations of social phenomena are dependent on the viewpoint of individual observers or collectives (Kothari, 2015). In order to conduct this research, a positivist methodology has been used. This approach prioritises the use of quantitative approaches for gathering and analysing data before making generalisations. This perspective is consistent with the concept that there is an objective world that can be understood by methodical and empirical methods.

3.2.2   Research Approaches

The deductive and inductive methods are widely acknowledged as two separate research methodologies, each with different attributes and practical uses (Bryman, 2012). Inductive research is distinguished by its progression from particular findings to broader conclusions (Bryman, 2012). In this methodology, scholars start their research by making empirical observations and later analyse the data to identify recurring patterns and thematic elements (Beiske, 2007). The absence of a planned framework for data collecting and the potential evolution of the study subject as data is acquired are common characteristics of research due to its flexible nature (Flick, 2016). Inductive research is often used in qualitative research, whereby data collecting procedures such as interviews are performed (Bryman, 2012; Flick, 2016).

On the other hand, the deductive method involves the development of hypotheses or a set of hypotheses based on known theories prior to designing a research plan to examine and confirm them (Silverman, 2013). This methodology demonstrates notable efficacy when the objective of the study is to evaluate the relationship between observed occurrences and the expectations acquired from previous scholarly

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investigations (Wiles et al., 2011). The positivist technique, characterised by the formulation of hypotheses and their subsequent statistical assessment at a predetermined level of probability, is in perfect harmony with the deductive approach (Snieder & Larner, 2009).

The deductive technique has been selected for this study within its specific setting. The justification for this decision is rooted in the study's systematic transition from a broad scope to a more focused and detailed examination. This study focuses on the examination of hypothesis testing, specifically investigating the hypotheses pertaining to the influence of TL and TSL on WE and SP. Additionally, the study explores the mediating role of WE and the moderating role of OC in this relationship. These hypotheses have been formulated based on established theories and a thorough review of existing literature. Therefore, the deductive strategy is seen to be more appropriate for this study, since it corresponds with the systematic investigation of pre-existing hypotheses inside the research framework.

3.2.3 Methodological Choice

There are many different research designs that serve certain aims, including descriptive, explanatory, and exploratory designs. The objective of a descriptive research design is to effectively capture and depict the experiences of respondents. This methodology is particularly appropriate for tasks such as outlining the demographic attributes of a specific subgroup within a community (Bryman, 2012). On the other hand, an explanatory study design aims to provide a thorough explanation of the characteristics that exist within a population or a social phenomenon (Saunders et al., 2007). The aforementioned design has significant value in the realm of

quantitative research, as its primary objective is to construct connections between variables, hence providing insights into cause-and-effect correlations (Kothari, 2015).

The exploratory design, conversely, is used when a subject is comparatively novel, and the existing body of scholarly work is inadequate (Sekaran & Bougie, 2019). In instances of this kind, the objective is to facilitate the progression of inquiry and comprehension. The selected research design for this study is an explanatory design. This study aims to investigate the phenomenon of SP in the public sector of the UAE. Therefore, the utilisation of an explanatory design enables the examination of hypotheses, enabling the researcher to analyse the connections between the variables under investigation and provide a thorough explanation of the influence of one variable on another (Sekaran & Bougie, 2019).

The present study employs an explanatory design that aligns with a quantitative approach, indicating that the research is primarily characterised by quantitative methods and analysis. Therefore, the research employs a survey as the principal method of data collecting, which is in line with the aim of methodically investigating and explaining the connections between the variables under consideration in an organised and statistically reliable method.

3.2.4   Research Strategy

The research strategy functions as a framework that outlines the researcher's planned steps to achieve the study goals (Saunders et al., 2007). Researchers have access to a wide range of research methodologies, including experimental research, action

research, case study investigations, interviews, and surveys, among others. Within the domain of quantitative research, surveys often assume a position of importance due to their ability to efficiently gather data. The procedure involves the careful and systematic selection of a statistically representative sample from the broader population (Bell et al., 2018). The research technique used for this study is aligned with its quantitative character, and it focuses on using the survey method.

The survey technique is deemed the most appropriate instrument for this research endeavour due to its alignment with the study's principal objective of investigating the correlations between its variables. It provides the opportunity to methodically collect data that is crucial for examining these interactions in a thorough and organised manner. Survey is an efficient method, and it has the ability to provide an efficient use of the time, energy, and costs of the researcher (Sekaran & Bougie, 2019; Zikmund et al., 2013). Therefore, the survey is used in this study as the data collection tool.

3.2.5 Time Horizons

Within the research onion framework (Bryman, 2012), two distinct time horizons are elucidated: cross-sectional and longitudinal. In the cross-sectional time horizon, data must be acquired within a predetermined cross-sectional time frame. This type of data collection captures a "snapshot" of a specific moment (Flick, 2016). This method is employed when investigating a particular phenomenon within a specific time period. Conversely, the longitudinal time horizon is employed when assessing changes over time constitutes a pivotal aspect of the research. This approach entails collecting data periodically over an extended duration (Goddard & Melville, 2004; Saunders et al., 2019).

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The study adopts a cross-sectional design approach rather than a longitudinal design. Although the longitudinal design is often favoured for its high quality of data collection and depth of analysis, however, it is equally known to be expensive, coupled with the required long-time frame (Sekaran & Bougie, 2016), therefore, the cross-sectional design is adopted for this study where the study collected data pertaining to the effect of TL and TSL on WE and SP in the public sector in UAE as well as the mediating role of WE and the moderating role of OC.

3.2.6   Analysis and Gathering of Data

The last phase within the research onion design encompasses the essential procedures of data collecting and subsequent analysis. Although this part provides a brief summary, more in-depth information may be found in following sections, including Section 3.7 and Section 3.8 of this chapter. The significance of emphasising the technique used in the research cannot be overstated, as it greatly influences the integrity of both the data collecting and analysis stages (Bryman, 2012). The selection of a particular approach has a substantial impact on the overall credibility and dependability of the study findings (Saunders et al., 2019). The data for this particular research is obtained from individuals who hold positions in Middle Management or supervisory jobs within the police force of the UAE. The following analysis of the data is performed using the Smart PLS version 4.0 software, highlighting the study's dedication to a rigorous and precise methodology in the pursuit of its research goals.

3.3   Research Process

The research started by identifying the problem of this study which is the weak SP as well as weak implementation of TL and TSL along with the lack of WE and OC. Based on the issues that have been identified, the research questions and objectives were developed, and gaps were identified by reviewing the literature. Based on the theory of TL, TSL and SET, the study developed a conceptual framework. Hypotheses of the study were also developed. Next, the study determined the population, sampling and the instrument of data collection. Validity and reliability were conducted to confirm that the measurement of the variables is valid and have adequate reliability. After that the data was collected and analysed to present the findings and implications of this study. Figure 3.2 shows the research process.
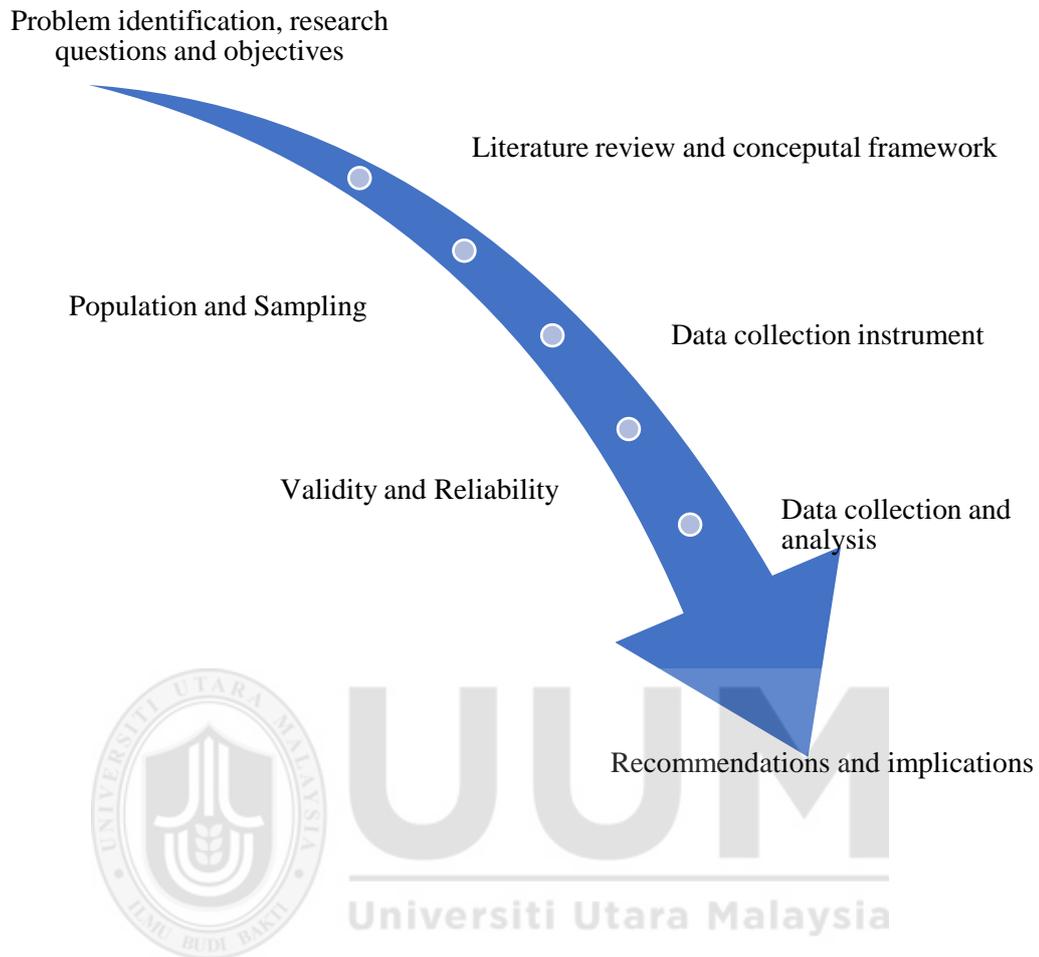
Figure 3.2: Research Process

3.4 Population and Sampling

The population under study in the present research consists of a comprehensive collection of persons, events, or things that have captured the researcher's attention and are generally given to thorough examination (Sekaran & Bougie, 2019). The population under consideration is regarded as an essential element in research, since it exhibits a shared trait among all individuals within the group. The term refers to a

group of persons or organisations that demonstrate a readiness to participate in the proposed research (Sekaran & Bougie, 2019).

Sampling, on the other hand, is the selection of a group of people from a given larger population for a survey (Creswell & Creswell, 2017). The population of this study is the police force working in the "Ministry of Interior Affairs" in UAE. However, the topic of this study is related to SP, leadership styles, WE, and OC, and this might be difficult for a normal policeman to have access to this information. A report by FAHR (2014) indicated that 5% of employees working for public sector leave their job. Out of the 5%, more than 63% are from the police forces. Therefore, the study is focusing on the police forces and in particular, the middle management level or supervisor in the headquarter and the other branches in the states. The choice of a middle management or supervisor because they have the required knowledge to answer the questions of this study related to SP, WE, TSL, TL and OC. UAE is a federal country which has seven states. In UAE, based on internal resource from the police headquarter, there are 17,500 police officers that are distributed on the seven states with high number of police officers in Abu Dhabi and Dubai compared with other states. These officers are mostly holders of bachelor's degrees in various sciences. These 17,500 are the population of this study.

3.4.1 Sample and Sampling Technique

A sample is a portion of the larger population that captures the attention of the researcher's preliminary interest (Sekaran & Bougie, 2019). Sampling is a justifiable approach in situations when it is impracticable or resource-intensive to include the full population being studied (Creswell & Creswell, 2017). The primary objective of

researchers in the process of sample selection is to have a more profound understanding of the attributes and qualities that are representative of the complete population. In addition, the method of sampling facilitates the identification of respondents who possess a wealth of knowledge that adds to the comprehensive examination of the fundamental themes of the research (Creswell & Creswell, 2017).

Sampling methods are generally divided into two main categories: probability sampling and nonprobability sampling. Probability sampling involves techniques where every individual in the population has an equal chance of being selected, with common approaches including random sampling and stratified random sampling. In contrast, nonprobability sampling does not offer equal selection opportunities for all individuals. Instead, it includes methods such as convenience sampling, judgmental (or purposive) sampling, quota sampling, and snowball sampling, where participants are selected based on specific criteria or availability rather than random selection.

In this study, the random sampling strategy has been selected as the most appropriate methodology. This conclusion is based on the observation that individuals occupying middle management or supervisory positions in the research setting tend to possess similar ranks and educational backgrounds. As a result, the use of random sampling guarantees a just and equal chance for every individual within the population to be chosen, fostering objectivity and diminishing any biases in the selection of participants.

3.4.2 Sample Size

To determine the sample size, researchers suggested several role of thumb. Kline (2015) reviewed the studies that have deployed the SEM and suggested that a number of responses above 200 is sufficient for the use of SEM. However, electronic method such as the G*power can provide the minimum sample size. Figure 3.3 shows the minimum sample size for this study which include four predictors (TL and TSL as independent variables, WE as a mediating variable, and OC as a moderating variable), the minimum sample size at margin error of 0.05 and confidence level of 0.95 is 88 responses.
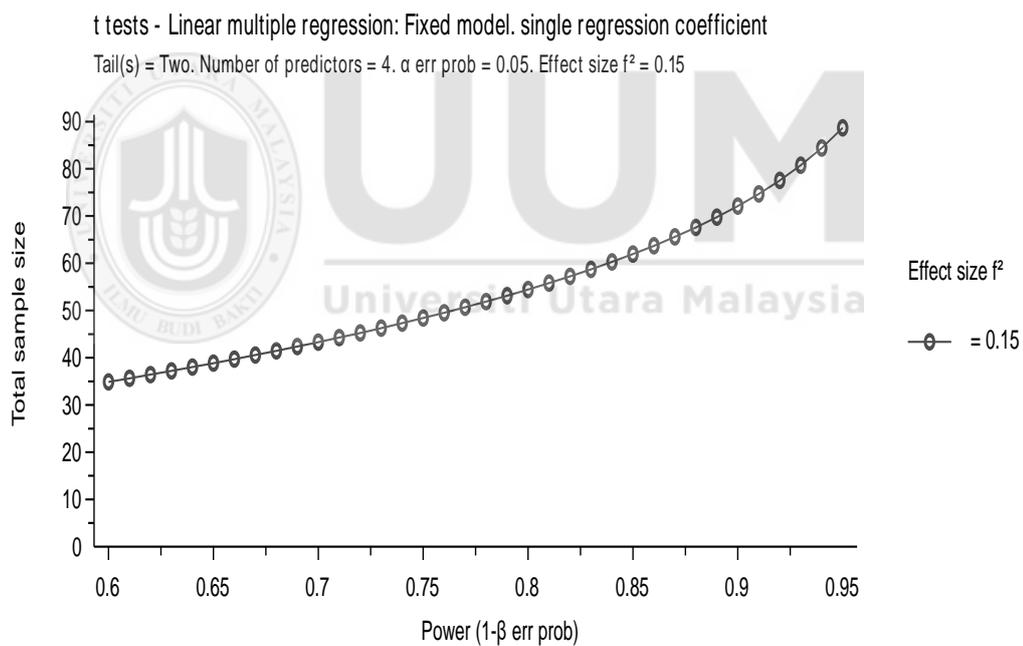
Figure 3.3: Minimum Sample Size Using G*Power

However, using the estimated population size which is 17,500 and based on the method of Krejcie and Morgan (1970), the sample size of this study is 376 respondents. Therefore, this study will distribute the questionnaire to 376 respondents working in the middle management or supervisor in the police forces in UAE. The 376

questionnaire are distributed on the branches, sub-branches, and departments in the police workforce in the seven states.

3.5   Instrumentation

This study uses a questionnaire to collect data from the respondents. The questionnaire is structured close-ended. The questionnaire consists of three parts. The first part is a cover letter to ensure that the respondents understand the purpose of the study and understand their rights and responsibility. The researcher introduces himself to the respondent in the cover letter and ensured that the contact details are attached. In addition, the confidentiality of the respondents is ensured, and the respondents is given the right to participate voluntarily in the study and to withdraw at any time without prior notice.

The second section of the questionnaire included the background information of the respondents. This includes their age, gender, experience, and ranks. The third section was devoted to the measurement of the variables of this study. The measurement are adopted from previous studies that have examined the leadership styles such as TL and TSL as well as the WE, OC and SP. Measurement of the variables are shown in Table 3.1. A copy of the questionnaire is given in Appendix A.

Table 3.1: Measurement of the Variables

Variable	Code	Number of items	Source
Sustainable performance	SP	23	(Nor-Aishah et al., 2020)
Transformational leadership	TL	15	(Razavi & Ab Aziz, 2017)

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Transactional leadership	TSL	7	(Udin et al., 2022)
Organisational commitment	OC	18	(Meyer et al., 1993b)
Work engagement	WE	6	(Udin et al., 2022)

3.6   Validity and Reliability

Hair et al. (2010) suggested that it is crucial to ascertain both the validity and reliability of the study instrument. The use of this dual evaluation method guarantees that the instrument accurately evaluates the target notion for which it was carefully constructed. In the following part, the study undertakes an extensive examination of the evaluation of validity and reliability in the measuring procedure.

3.6.1   Validity

Researchers suggested that the instrument of data collection should be validated and pilot testing should be conducted prior to data collection (Hair et al., 2006; Hair et al., 2010; Sekaran & Bougie, 2019). According to Kimberlin and Winterstein (2008), validity refers to the degree to which a particular instrument accurately measures the target concept. Consistent with the recommendations put forward by Hair et al. (2006), it is crucial for researchers to engage in a thorough validation procedure in order to protect the trustworthiness and authenticity of the instrument, guaranteeing its validity and reliability for utilisation in the study. According to Zikmund et al. (2013), researchers are advised to consult experts to review the measurement instruments, ensuring that the items are more reliable for gathering relevant information.

In this study, the measurement of the variables was adopted from reliable sources to ensure their content validity. Face validity is ensured by asking experts to validate the

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instrument after translation. The questionnaire was sent to experts who understand both Arabic and English to validate the content of the measurement. The questionnaire was validated by three experts. The Arabic and English were sent to ten experts with PhD degree and experience in the topic. However, only three experts agreed to validate the questionnaire. These experts commented on the questionnaire in term of the capability of the measurement to measure the variables, the clarity of the questions, and the accuracy of the translation. Main comments that has been derived by the experts are related to removing one item from OC as well as the correction of Arabic-English translation, numbering of the questions, and providing instruction for respondents to answer the questions. All their comments were addressed and corrected. The translation was corrected and the questions were numbered. Unclear statements were corrected. Furthermore, since the data is collected from the police forces, prior to the data collection, the police headquarter also conducted a validation process and checked the accuracy of translation and meaning of statements.

3.6.2 Reliability

A pilot study was conducted to evaluate the reliability of the measurement instruments and confirm their appropriateness for the main study. Conducting a pilot study is crucial for identifying potential issues in the research design, including ambiguous questions and data collection problems, prior to initiating the full-scale study. Lackey et al. (1998) suggest that a pilot study should generally encompass approximately 10% of the total sample size of the primary study. The complete study sample comprised 376 respondents; thus, adhering to the 10% guideline, around 38 participants would be required for the pilot study. In light of the anticipated lower response rate, the decision was made to distribute 75 questionnaires, effectively doubling the initial pilot sample

size to enhance the likelihood of securing an adequate number of responses. The pilot study examined police officers in the UAE police forces. To preserve the integrity of the final sample, participants from the pilot study were excluded from the data collection of the main study.

The pilot questionnaires were administered to police officers in Abu Dhabi, resulting in the return of 33 completed questionnaires, which indicates a satisfactory response rate for this preliminary phase. The data obtained from the pilot study were essential for performing a reliability analysis, which included the calculation of Cronbach's Alpha (CA) to assess the internal consistency of the questionnaire items. Sekaran and Bougie (2019) highlight the significance of CA as a statistical indicator of reliability. This study analyses the degree of positive correlation among items in a questionnaire, indicating whether these items assess the same underlying construct or concept.

CA values span from 0 to 1, where elevated values signify enhanced reliability. A widely recognised threshold for reliability is 0.70 or higher; values below 0.60 are regarded as poor, while those exceeding 0.70 are considered acceptable for research applications. In this study, a CA value exceeding 0.70 was necessary to validate the reliability of the measurement instruments. The reliability analysis of the pilot data indicated that the CA for all variables in the study exceeded 0.70, as presented in Table 3.2, demonstrating strong internal consistency among the questionnaire items. The results demonstrate that the survey items effectively measured the relevant constructs and were suitable for implementation in the comprehensive data collection process.

The pilot study effectively demonstrated that the measurement tools were well-constructed and capable of reliably capturing data on key variables, including TL, TSL, OC, WE, and SP in the context of police forces. The researchers were able to advance to the primary phase of data collection, assured by the pilot study's validation of the instruments' reliability. The pilot facilitated the refinement of the data collection process, allowing for early identification and resolution of potential issues, thereby enhancing the robustness and validity of the research.

Table 3.2: Reliability Study (Pilot Testing, N=33)

Variable	Number of items	Cronbach's Alpha	Conclusion
SP	23	0.916	Reliable
TSL	7	0.934	Reliable
TL	15	0.915	Reliable
OC	17	0.914	Reliable
WE	6	0.851	Reliable

3.7   Data Collection

The data for this study is a primary and is collected via an online questionnaire. An online questionnaire was used to collect the data of this study. The questionnaire was translated into Arabic and both languages (English and Arabic) were presented in the questionnaire. Measurement of the items were used the five Likert scale which ranged from 1= strongly disagree to 5 = strongly agree. These scale is more efficient compared with other sales such as seven points and 10 points scales (Sekaran & Bougie, 2019).

To facilitate the data collection, a permission from the supervisor was obtained. As mentioned previously, the questionnaire was validated by the information office in the police headquarter. The office was asked for help in the data collection. Since this data was collected from police officers in the middle management level, it was difficult to

obtain the contact details of all the respondents. However, the information office has all the contact information, and they asked to distribute the questionnaire after validation. A total of 376 questionnaires were distributed to all police officers in the middle management level in the seven states using random sampling. Between March and early June, a total of 339 responses were collected. This has included several reminders. Therefore, a total of 339 responses are included in this study. These responses are examined in next section for missing values, outliers, normality, and multicollinearity. According, this study has a response rate of 90%. This could be due to the notion that the link of the questionnaire was distributed by the head quarter which has helped in enhancing the response rate.

3.8 Data Analysis

The present study used SPSS software for data analysis. The identification and management of missing data are crucial for preserving the integrity of data.

3.8.1 Missing Values

According to Hair et al. (2017), it is considered best practise to set a missing data threshold of fewer than 15%. The handling of missing data may be addressed using several strategies, such as imputation or exclusion, which are contingent upon the characteristics of the data. In this study, a total of 339 responses were collected. The process of checking the missing value is based on frequency analysis. SPSS was used to examine the missing values. The result of SPSS showed that there is no missing values and this could be due to the notion that the function "required" was used in the questionnaire. therefore, respondents cannot submit the responses unless all the

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questions are answered. Therefore, out of the collected responses (339), none of the response was deleted. Accordingly, the complete responses are 339.

3.8.2   Outliers

The identification of outliers serves the purpose of mitigating the undue effect of extreme values on statistical analysis. Boxplots provide a graphical depiction that facilitates the detection of outliers within a dataset. The process of addressing outliers sometimes necessitates the use of transformation or robust statistical approaches. The outliers were examined using the boxplot. Hair et al. (2023) suggested that the value outside the boxplot indicates the existence of outliers which are extreme values that are far from the mean score. The boxplot showed the existence of 18 outliers. Therefore, 18 responses were removed. This has resulted in 321 responses that are complete and valid. Figure 3.4 shows the process of filtering the data. It shows the distributed questionnaires, collected responses, complete and valid responses.
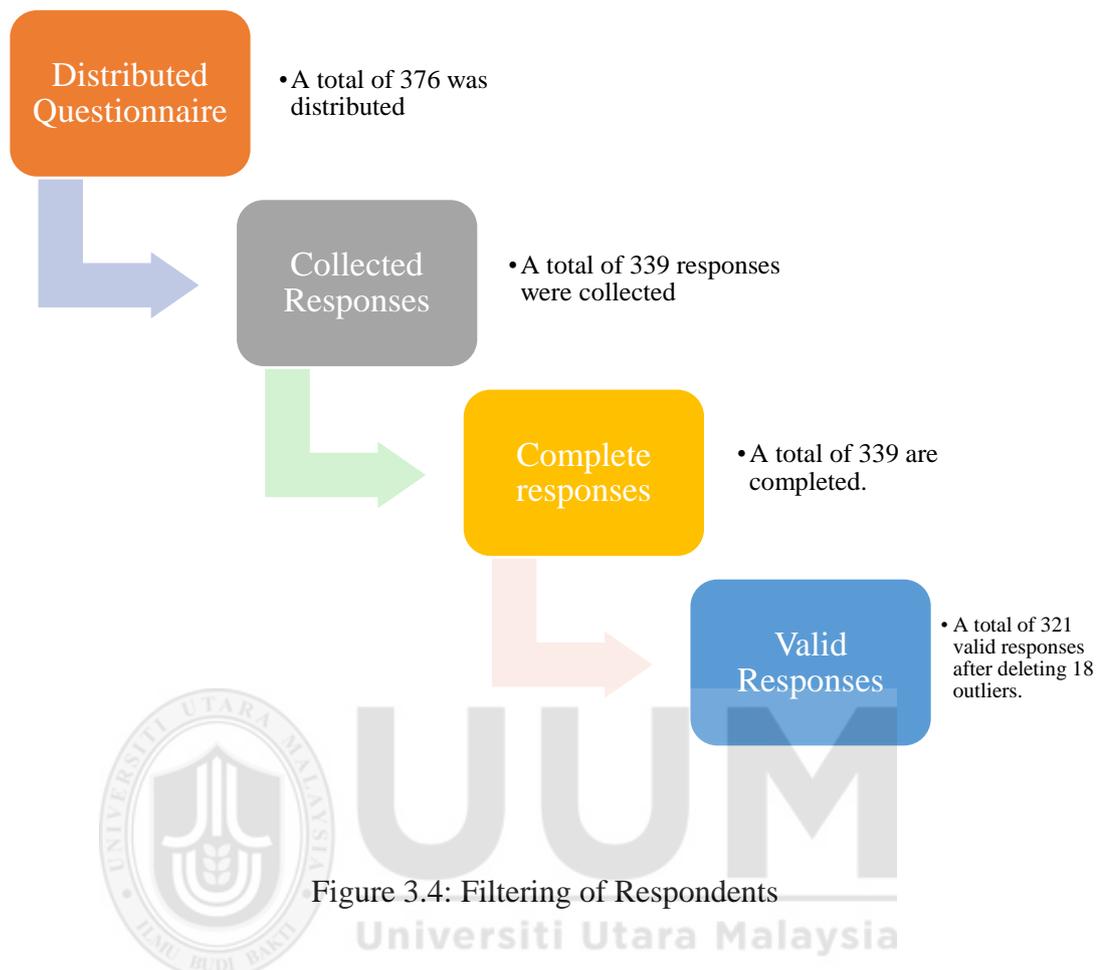
Figure 3.4: Filtering of Respondents

3.8.3 Normality

Assessing skewness and kurtosis is essential for determining the degree to which data conforms to a normal distribution, a critical assumption in numerous parametric statistical tests. Skewness quantifies the asymmetry of a distribution, whereas kurtosis evaluates the degree of peakedness or flatness in comparison to a normal distribution. Deviations in skewness or kurtosis suggest that the data may not adhere to a normal distribution, potentially resulting in inaccuracies in statistical analyses and hypothesis testing. Deviations can compromise the outcomes of parametric tests that depend on the normality assumption, thereby impacting their validity and reliability. Consequently, when data exhibits significant deviations from normality,

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researchers frequently employ remedial techniques, including data transformation or non-parametric methods, to maintain the robustness of their analyses.

This study employed two complementary methods to assess normality, thereby enhancing accuracy. The skewness and kurtosis values for each variable were computed, as shown in Table 3.3. The skewness and kurtosis values for all variables, as indicated in the table, are within the acceptable range, specifically below an absolute value of 1. This indicates that the data aligns with a normal distribution, as small deviations from zero reflect minor yet acceptable asymmetry and kurtosis. The skewness values range from -0.444 to -0.214, suggesting a slight leftward skew, yet remaining within the acceptable range for parametric testing. The kurtosis values, which range from -0.547 to -0.417, indicate that the data does not display significant peakedness or flatness, thereby reinforcing the normal distribution of the dataset.

Alongside the numerical assessment, visual verification of normality was performed using histograms, as shown in Appendix C. The histograms exhibit a bell-shaped curve, reinforcing the conclusion that the data follows a normal distribution. This visual method complements skewness and kurtosis statistics by providing an intuitive understanding of data distribution.

The analysis of skewness and kurtosis, along with visual inspection via histograms, indicates that the data in this study adheres to the assumption of normality. The application of parametric statistical tests is thus justified, and no additional remedial actions, such as data transformation, are required. This evaluation guarantees that the

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statistical tests performed in this study produces reliable and valid results, unaffected

by distortions that may occur when the assumption of normality is not met.

Table 3.3: Normality Analysis

Variable	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
SP	-.444	.136	-.417	.271
TSL	-.425	.136	-.534	.271
TL	-.265	.136	-.547	.271
OC	-.314	.136	-.544	.271
WE	-.214	.136	-.528	.271

3.8.4 Multicollinearity

Multicollinearity is the occurrence of high correlation among independent variables

in a regression model, which can result in various problems in the analysis, especially

concerning the stability and reliability of the estimated coefficients. Multicollinearity

complicates the assessment of the individual impact of each predictor on the

dependent variable due to excessive information overlap among the predictors. This

may lead to inflated standard errors, reducing the precision of coefficients and

potentially resulting in erroneous conclusions about the significance of variables.

Hair et al. (2017) highlight the necessity of evaluating multicollinearity to guarantee

the validity and interpretability of regression analysis results.

Two main approaches are typically employed to assess multicollinearity. The initial

approach entails analysing the correlation matrix to evaluate the extent of linear

relationships among the independent variables. Hair et al. (2017) indicate that a

correlation exceeding 0.85 between two variables suggests significant

multicollinearity, potentially requiring corrective measures such as the removal of

one correlated variable or the application of principal component analysis (PCA). This study shows, as indicated in Table 3.4, that the strongest correlation is between TSL and TL, with a value of 0.541. The correlation is moderate and significantly below the 0.85 threshold, suggesting that multicollinearity is not an issue between these two leadership styles. Additionally, other correlations among variables, including TSL and OC (0.359), TSL and WE (0.231), as well as TL with OC and WE (0.334 and 0.227, respectively), are observed to be within the low to moderate range. The highest correlation observed is 0.541, which is below the critical threshold, indicating that multicollinearity is not a significant concern according to the correlation matrix.

Table 3.4: Correlation

Variable	SP	TSL	TL	OC	WE
SP	1				
TSL	.511**	1			
TL	.488**	.541**	1		
OC	.306**	.359**	.334**	1	
WE	.158**	.231**	.227**	.406**	1

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

The alternative approach to identifying multicollinearity entails the computation of variance inflation factor (VIF) and tolerance values. The VIF quantifies the extent to which the variance of a regression coefficient is increased due to multicollinearity. Tolerance, conversely, is the inverse of VIF and reflects the proportion of variance in an independent variable that remains unexplained by other predictors. According to Hair et al. (2017), multicollinearity is deemed problematic when the VIF surpasses five (5) or when the tolerance value falls below 0.20. Elevated VIF values indicate a significant linear association between a variable and other predictors in the model, signifying the presence of multicollinearity.

Table 3.5 displays the results of the VIF and tolerance analysis. All VIF values are significantly below the threshold of 5, with the maximum VIF recorded at 1.495 for TSL. All tolerance values exceed 0.20, with the minimum tolerance value recorded at 0.669, specifically for TSL. The results provide additional evidence that multicollinearity is not an issue within this dataset. The VIF values between 1.215 and 1.495 suggest that the independent variables exhibit low correlation with each other, allowing for a reliable assessment of their individual contributions to the dependent variable—SP.

Table 3.5: Multicollinearity Assessment

Variable	Collinearity Statistics	
	Tolerance	VIF
TSL	.669	1.495
TL	.681	1.468
OC	.745	1.342
WE	.823	1.215

a. Dependent Variable: SP

3.8.5 Non-Response Bias

Non-response bias poses a significant risk to the representativeness and validity of survey research. Non-response bias occurs when there are significant differences between individuals who participate in a survey and those who do not, which can distort the results and restrict the applicability of the findings. This bias arises when late or non-respondents exhibit systematic differences in their opinions or traits relative to early respondents, resulting in either an over-representation or under-representation of specific perspectives in the data. The presence of non-response bias compromises data integrity, as the sample may fail to accurately represent the target population.

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Statistical techniques, including Levene's test, are utilised to evaluate the presence of non-response bias by identifying significant differences in key variables between early and late respondents. In this study, early respondents are defined as individuals who completed the questionnaire within the initial 30 days of data collection, comprising 136 participants. In contrast, late respondents are those who completed the questionnaire after the first 30 days, totalling 185 participants. The study seeks to identify significant differences between the responses of these two groups, which may suggest the presence of non-response bias.

A p-value exceeding 0.05 is typically regarded as indicative of no statistically significant difference between early and late respondents (Pallant, 2020). If the p-value is greater than 0.05, it indicates a lack of significant evidence for non-response bias, implying that the sample is likely representative of the population. This study presents p-values from independent sample t-tests that compare early and late respondents across several variables, including SP, TSL, TL, OC, and WE. All p-values exceed 0.05, as indicated in Table 3.6.

In the context of SP, the p-value for the Sig (2-tailed) is 0.077, surpassing the 0.05 threshold, which suggests that there is no significant difference in the mean SP scores between early and late respondents. This finding indicates that the responses concerning SP are uniform across both groups, thereby reinforcing the absence of non-response bias in this variable. The p-values for TSL (0.215), TL (0.632), OC (0.076), and WE (0.578) exceed 0.05, supporting the conclusion that no significant differences exist between early and late respondents in these key variables.

The findings from the independent sample t-test suggest that non-response bias is not a significant concern in this study. The comparable responses from early and late participants indicate that the collected data is strong and representative of the wider target population, thus affirming the validity and generalisability of the results.

Additionally, addressing non-response bias is essential in quantitative research as it improves the validity of the research findings. This study reinforces its assertions regarding the relationships among leadership styles, OC, WE, and SP by showing that early and late respondents exhibit no significant differences. This systematic approach highlights the significance of thorough data collection and analysis processes in reducing potential biases that may compromise the integrity of research findings.

Table 3.6: Independent Sample T-Test

	Bias	N	Mean	Mean Difference	Sig. (2-tailed)
SP	Early	136	3.3332	-.17121	.077
	Late	185	3.5044	-.17121	.080
TSL	Early	136	3.2022	-.13698	.215
	Late	185	3.3392	-.13698	.215
TL	Early	136	3.0721	-.04506	.632
	Late	185	3.1171	-.04506	.637
OC	Early	136	2.9420	-.17332	.076
	Late	185	3.1153	-.17332	.080
WE	Early	136	2.9520	-.04732	.578
	Late	185	2.9993	-.04732	.577

3.8.6 Descriptive Statistics

The present study aims to conduct a descriptive analysis. Descriptive statistics provide a comprehensive summary of a dataset, including valuable information on measures of central tendency (such as the mean), variability (such as the standard deviation), and the distribution of answers. In addition, frequency tables and counts provide important summaries of variables that are categorised.

3.8.7 Smart PLS

The main analysis conducted in this study used Smart PLS 4 software. The factor loading is a statistical measure used in factor analysis to assess the strength of the relationship between a variable and a factor. Factor loadings are used as indicators to assess the extent to which each observable variable accurately reflects its underlying latent concept. According to Hair et al. (2019), factor loadings that above the threshold of 0.70 are deemed to be robust. Conversely, values below this level may indicate the need to eliminate indicators that are performing badly in order to improve the reliability of constructs.

The feature of measurement known as reliability has significant importance. CA and Composite Reliability (CR) are two often used methods for evaluating the internal consistency of a set of items. According to Hair et al. (2019), constructions with values over 0.70 may be considered credible. Convergent validity refers to "the extent to which different measures of the same construct are positively correlated, indicating that they are measuring the variable". Convergent validity is a statistical assessment that investigates the extent to which several indicators of a certain

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construct exhibit convergence or clustering around a common centre point. A good level of convergent validity is shown when the "Average Variance Extracted" (AVE) surpasses the threshold of 0.50 (Hair et al., 2010; Hair et al., 2006).

The concept of "discriminant validity" refers to "the extent to which a measure is able to distinguish between different constructs or variables". "Discriminant validity" evaluates the extent to which various notions are conceptually separate from one another. Various techniques, such as the Fornell-Larcker criteria, HTMT ratio, and cross-loading analysis, are used to demonstrate "discriminant validity" (Hair et al., 2019). In addition, the cross loading is another indicators that can be used to check the discriminant validity. The loading of the item on their variable should be higher than the loading on other variables (Hair et al., 2019).

In term of the structural model, it can be assessed using the coefficient of determination, f-square and path coefficient. The coefficient of determination, often referred to as R-squared (R^2), offers valuable insights into the extent to which the independent variables may account for the variability seen in the dependent variable. The use of weak, moderate, and considerable R^2 thresholds facilitates the comprehension of the magnitude of connections inside the model (Hair et al., 2023).

The concept of effect sizes, specifically F-Square, is used to assess the practical relevance of correlations. Various effect sizes indicate different degrees of practical relevance, which assists in the understanding of research results. The path coefficient is a statistical measure that quantifies the strength and direction of links between variables. The study's hypotheses are evaluated by examining the path coefficients.

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The topic of interest is to the examination and exploration of mediation and moderation analysis. Mediation analysis is a statistical method used to explain the underlying processes by which independent variables exert their influence on dependent variables. The evaluation of both direct and indirect effects is crucial in comprehending the involvement and magnitude of influence of a mediator (J. Hair et al., 2023). Moderation analysis is a statistical technique that investigates how the association between two variables is contingent upon the values of a third variable (Hair, Risher, et al., 2019; Hair, Sarstedt, et al., 2019). This research use the product indicators method to conduct a comprehensive analysis of moderation effects, so enhancing the comprehension of the influence of contextual variables on the relationship between leadership and SP.

In brief, the data analysis strategy described for this research covers a thorough methodology for data cleansing, evaluation of the measurement model, and assessment of the structural model. The study follows known statistical methodologies and includes mediation and moderation analyses to provide a comprehensive comprehension of the intricate connections between leadership styles and SP in the UAE police force. The use of both SPSS and Smart PLS enables a comprehensive and diverse examination of the study data.

3.9   Summary

This study utilises a rigorous research approach to examine the associations between leadership styles and SP in the context of the UAE police force. The research design functions as a comprehensive plan for the study, delineating the framework, strategy, and procedures used. This study focuses on a particular demographic, namely those

belonging to the police forces in the middle management level in the UAE. The perspectives and experiences of these individuals are of utmost importance in comprehending of leadership and its influence on SP. To enhance the external validity of the research and get significant insights, a random sampling strategy has been used to guarantee that the chosen sample is representative of the total population. In order to efficiently collect data, a crafted research instrument was devised. A thorough questionnaire was developed, including many categories and questions that provide a detailed evaluation of leadership styles, WE, OC, and SP. The questionnaire functions as the principal instrument for gathering data and is a crucial element of this study.

The concepts of validity and reliability are crucial in the field of research and measurement. The questionnaire was undergone a series of rigorous measures to ensure the establishment of its content, construct, and face validity. The validity of the instrument was improved by the incorporation of expert evaluations and pilot testing. Furthermore, the researchers used metrics of internal consistency, namely CA to assess the reliability of the instrument. This was done to ensure that the survey questions consistently measure the intended components.

The data gathering techniques were carefully devised and implemented with rigorous attention to detail in order to get data of exceptional quality and relevance. The chosen sample was subjected to the administration of the study instrument, accompanied by full directions for data collection to maintain consistency and uniformity in the responses. The data collecting method was conducted with a focus on ethical issues, ensuring that informed permission acquired from all participants.

The examination of the gathered data is a crucial stage of this study. Robust data analysis has been undertaken by using a dual strategy that incorporates the use of both SPSS and Smart PLS. The use of SPSS for data analysis is very advantageous due to its robust capabilities in doing preliminary data exploration. This stage include the process of data cleansing, whereby the evaluation and proper handling of missing values, outliers, and non-response bias take place. Descriptive statistics are used to provide a comprehensive summary of the data, including measurements of central tendency and variability. The data analysis was conducted using Smart PLS. This entails the evaluation of factor loadings, reliability indices such as CA and CR, as well as the assessment of convergent and discriminant validity. Additionally, the structural model is evaluated, and path coefficients are analysed in order to test the proposed assumptions. Furthermore, the use of mediation and moderation techniques is employed in order to unveil intricate linkages and interactions inside the dataset.
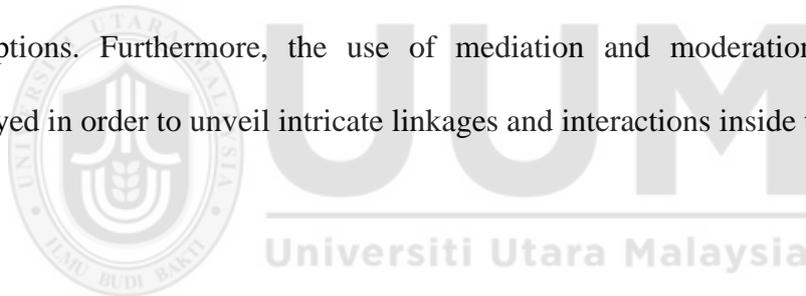
CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1   INTRODUCTION

This chapter presents the core findings of the study. The chapter is divided into six sections, beginning with an overview that outlines the key components and data examination process. Following the overview, the descriptive statistics of the respondents and variables are discussed. This descriptive analysis offers insight into the characteristics of the study participants and the basic properties of the data, such as means, standard deviations, and distributions, which are essential for validating the quality and structure of the dataset before proceeding with more complex analyses. The subsequent sections focus on the evaluation of the measurement and structural models. The measurement model is assessed to ensure the reliability and validity of the constructs, using metrics such as CA and CR. This process is critical for confirming that the data accurately reflects the theoretical constructs being studied. Following this, the structural model is examined to test the relationships between key variables—TL, TSL, WE, OC, and SP. The structural model analysis is conducted through advanced techniques like SEM, which allows for the evaluation of both direct and indirect effects between variables. Using Smart PLS 4, the hypotheses of this study are conducted.

4.2   Descriptive Information

This section provides an overview of the descriptive information of the respondents and variables in the study. The demographic characteristics of the respondents, such as age, gender, job position, and years of service, are analysed to offer context and ensure the representativeness of the sample. Additionally, descriptive statistics for the variables such as TL, TSL, WE, OC, and SP are presented, including measures such as mean and standard deviation. These statistics provide a foundational understanding of the data distribution and central tendencies, which are essential for confirming the suitability of the dataset for further analysis. This descriptive analysis serves as a preliminary step toward evaluating the relationships between variables in the later sections of the study.

4.2.1   Background of Respondents

In total, 321 respondents have participated in this study. The gender distribution among the 321 respondents from the UAE police forces shows a significant male predominance, with 276 males constituting 86.0% of the sample, while females make up only 14.0% with 45 respondents. This difference highlights the gender disparity within the police force, which may be reflective of broader societal norms and occupational trends in the police forces in UAE. This also could be due to the fact that police forces is a male oriented in the sample of this study.

The age distribution of the respondents is predominantly skewed towards younger individuals. The majority, 233 respondents or 72.6%, fall within the 25-35 years age group. This suggests that the police force is composed largely of relatively young

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members, which could imply a focus on recruiting younger individuals possibly due to the physical demands of the job. Only 5.0% are less than 25 years old, indicating that entry into the police force typically happens after a certain age or level of maturity. Respondents aged 36-45 years constitute 14.6%, while those in the 46-55 years range make up 2.2%. The small percentage (5.6%) of respondents aged 56-65 years indicates that older individuals are either less prevalent in this workforce or may retire earlier. In terms of experience, a substantial 80.7% of respondents have 5-10 years of service, which points to a relatively stable and moderately experienced workforce. Only 4.4% of respondents have less than 5 years of experience, suggesting that there might be lower turnover rates or a rigorous selection process that retains members beyond the initial years. Those with 11-15 years and 16-20 years of experience constitute 5.6% and 4.0% respectively, while 5.3% have over 20 years of service.

The rank distribution reveals that more than half of the respondents (52.0%) are officers. Supervisors account for 31.8% of the respondents, indicating a substantial middle tier of management that is essential for operational efficiency and oversight. Middle managers constitute 10.9%, reflecting a smaller, more specialized leadership group responsible for higher-level decision-making and strategic planning. The "Others" category, making up 5.3%, likely includes various specialized roles within the police forces. Table 4.1 shows the background information of the respondents.

Table 4. 1: Profile of Respondents

Variable	Label	Frequency	Percent
Gender	Male	276	86.0
	Female	45	14.0
	Total	321	100.0
Age	Less than 25 years	16	5.0

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	25-35 years	233	72.6
	36-45 years	47	14.6
	46-55 years	7	2.2
	56-65 years	18	5.6
Experience	Less than 5 years	14	4.4
	5-10 years	259	80.7
	11-15 years	18	5.6
	16-20 years	13	4.0
	21-25 years	17	5.3
	Total	321	100.0
Rank	Officer	167	52.0
	Supervisor	102	31.8
	Middle Manager	35	10.9
	Others	17	5.3

4.2.2 Descriptive Statistics of Variables

The level of the responses are discussed in this section. Interpretation of the level is based on the suggestion of other research for five point Likert scale. Value between 1-2.33 are considered low while values between 2.34-3.67 are considered medium and values between 3.68 – 5.00 are considered high. This interpretation is in line with other previous studies that have interpreted five Likert scales (Ahmed et al., 2015; Jwaifell et al., 2019).

4.2.2.1 Level of SP

The level of SP is shown in Table 4.2. The highest mean score among the indicators is 3.99, associated with "decreased rates of work-related injury frequency," with a standard deviation of 1.16. This suggests that respondents overwhelmingly perceive the organisation as highly effective in reducing the frequency of work-related injuries. The low standard deviation indicates a consistent agreement among respondents on this aspect. This high score reflects the organisation's strong commitment to workplace

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safety, highlighting the effectiveness of safety protocols, training programs, and preventive measures. Such a focus on safety not only protects employees but also enhances overall organisational efficiency by reducing downtime and maintaining high morale among the workforce.

Conversely, the lowest mean score is 3.32, associated with "reduced material usage," with a standard deviation of 1.39. This lower score indicates that respondents see the organisation as less effective in minimizing material consumption. The relatively higher standard deviation suggests varied perceptions among respondents, possibly due to inconsistent implementation of material reduction strategies across different areas or departments. This highlights a potential area for improvement, where the organisation could benefit from adopting more efficient resource management practices and sustainability initiatives. By focusing on reducing material usage, the organisation can not only lower operational costs but also enhance its environmental performance, aligning with broader sustainability goals.

The overall mean score for SP is 3.70. This score provides a general sense of the organisation's balanced performance across economic, environmental, and social dimensions. It indicates that while the organisation is generally perceived as performing well, there is still room for improvement. The overall mean suggests a solid baseline of performance but also points to the need for continuous efforts to enhance various aspects of sustainability. By leveraging its strengths, such as workplace safety, and addressing weaker areas, like material usage reduction, the organisation can strive for comprehensive and sustainable development.

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Table 4. 2: Level of SP

Item	Mean	Std. Deviation
1. "has improved its market share	3.93	1.18
2. has improved its image	3.98	1.15
3. has improved its position in the marketplace	3.78	1.13
4. has increased its productivity	3.88	1.12
5. has decreased costs	3.91	1.23
6. has improving its performance	3.82	1.31
7. has improved compliance with environmental standards	3.56	1.38
8. has reduced CO2 emissions	3.44	1.35
9. has reduced energy consumption	3.49	1.32
10. has reduced material usage	3.32	1.39
11. has reduced the consumption of hazardous materials	3.38	1.30
12. has reduced solid wastes	3.40	1.19
13. has reduced environmental accidents	3.73	1.20
14. has improved or enhanced the workforce welfare	3.61	1.36
15. has improved the workforce health and safety	3.73	1.23
16. has increased workforce training and development	3.76	1.24
17. has workforce engagement	3.56	1.39
18. has reduced environmental impacts and risks to the general public	3.78	1.23
19. has improved occupational health and safety of employees	3.63	1.30
20. has improved the awareness and protection of the community	3.71	1.29
21. Has served claims and rights of the community	3.81	1.32
22. decreased rates of work-related injury frequency	3.99	1.16
23. decreased rates of work-related deaths".	3.96	1.19
Overall mean of SP	3.70	

4.2.2.2 Level of TL

The level of TL is shown in Table 4.3. The highest mean score among the TL indicators is 4.18 for the item "Says positive things about the work unit." This suggests that respondents perceive this specific behaviour of TL very positively. The relatively low standard deviation indicates that most respondents consistently agree on this positive perception. This high score highlights the leader's effectiveness in fostering a positive work environment and promoting the unit, which can enhance morale and team cohesion.

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The lowest mean score is 3.79 for the item "Has a clear sense of where he/she wants our unit to be in 5 years." This lower score indicates that respondents see this aspect of TL as less effective compared to other items. The overall mean score for TL is 4.01. This score provides a general sense of the respondents' perceptions of the leadership style. A mean score above 4 indicates a generally positive perception of TL within the organisation. However, the presence of variability among the individual items suggests that while the overall perception is good, there are specific areas that might benefit from further enhancement.

Table 4. 3: Level of TL

Item	Mean	Std. Deviation
1. "Has a clear understanding of where we are going"	4.17	1.06
2. "Has a clear sense of where he/she wants our unit to be in 5 years"	3.79	1.15
3. "Has the idea where the organisation is going"	3.92	1.07
4. "Says things that make employees proud to be a part of this organisation"	4.02	1.23
5. "Says positive things about the work unit"	4.18	1.02
6. "Encourages people to see changing environments as situations full of opportunities"	4.00	1.18
7. "Challenges me to think about old problems in new ways"	4.10	1.01
8. "Has ideas that have forced me to rethink some things that I have never questioned before"	4.07	1.09
9. "Has challenged me to rethink some of my basic assumptions about my work"	3.95	1.07
10. "Considers my personal feelings before acting"	3.97	1.07
11. "Behaves in a manner which is thoughtful of my personal needs"	3.85	.99
12. "Sees that the interests of employees are given due consideration"	4.06	1.13
13. "Commends me when I do a better than average job"	3.93	1.14
14. "Acknowledges improvement in my quality of work"	4.07	1.07
15. "Personally, compliments me when I do outstanding work".	4.13	1.23
Overall mean of Transformational Leadership	4.01	

4.2.2.3 Level of TSL

Table 4.4 shows the level of TSL and the items. The highest mean score among the items assessing various aspects of TSL was found in the statement "My leader always encourages followers' performance," with a mean score of 4.24. This suggests that respondents perceive their leader as consistently supportive and encouraging of their performance efforts. Conversely, the lowest mean score was observed in the statement "My leader always reacts to followers' work problems," which received a mean score of 3.97. This indicates that respondents perceive their leader as less consistent in reacting to and addressing work-related issues faced by followers. Overall, the mean score across all the TSL items was 4.11. This average reflects the general perception of respondents regarding their leader's TSL style across various behaviours, encompassing aspects such as setting work standards, assessing performance, giving appreciation for success, and correcting mistakes.

Table 4. 4: Level of TSL

Item	Mean	Std. Deviation
1. "My leader always encourages followers' performance."	4.24	1.20
2. "My leader always judges the work of followers based on their work"	4.15	1.26
3. "My leader always gives appreciation for the success of the follower's work"	4.22	1.14
4. "My leader always determines the work standards of followers"	4.10	1.17
5. "My leader always assesses followers' work mistakes."	4.06	1.16
6. "My leader always reacts to followers' work problems."	3.97	1.18
7. "My leader always c corrects followers' work mistakes".	4.01	1.10
Overall mean of Transactional leadership	4.11	

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4.2.2.4 Level of OC

Table 4.5 shows the mean score of OC as well as the items of OC. For instance, the statement "I would be very happy to spend the rest of my career with this organisation" has a mean of 3.61, indicating a generally positive sentiment among respondents, while the standard deviation of 1.43 suggests moderate variability in responses. The highest mean value is observed in the reversed item "I do not feel like part of the family at my organisation (R)," with a mean of 3.98. This high mean value is a reversed item, indicates a significant number of respondents feel integrated into the organisation. Conversely, the lowest mean value is found in the statement "One of the few negative consequences of leaving this organisation would be the scarcity of available alternatives," with a mean of 2.74. This suggests that the scarcity of alternatives is not a major concern for most respondents, indicating they might have other employment options available. Overall, the mean value of OC is 3.28, suggesting a moderate level of commitment among employees. This overall mean provides a general sense of how committed employees feel towards their organisation across all measured dimensions.

Table 4. 5: Level of OC

Item	Mean	Std. Deviation
1. "I would be very happy to spend the rest of my career with this organisation"	3.61	1.43
2. "I really feel as if this organisation's problem are my own."	3.67	1.48
3. "I do not feel a strong sense of belonging to my organisation (R)."	3.14	1.64
4. "I do not feel emotionally attached to this organisation (R)."	3.04	1.50
5. "I do not feel like part of the family at my organisation (R)."	3.98	1.44
6. "This organisation has a great deal of personal meaning for me."	3.57	1.44

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7.	"Right now, staying with my organisation is a matter of necessity as much as a desire."	3.55	1.48
8.	"It would be very hard for me to leave my organisation right now, even if I wanted to."	3.33	1.45
9.	"Too much of my life would be disrupted if I decided I wanted to leave my organisation now."	3.04	1.48
10.	"I feel that I have too few options to consider leaving this organisations."	2.84	1.40
11.	"If I had not already put so much of myself into this organisation, I might consider working elsewhere."	2.84	1.35
12.	"One of the few negative consequence of leaving this organisation would be the scarcity of available alternative."	2.74	1.30
13.	"I do not feel any obligation to remain with my current employer (R)"	3.37	1.37
14.	"Even if it were to my advantage, I do not feel it would be right to leave my organisation now."	2.99	1.32
15.	"This organisations deserve my loyalty."	3.45	1.37
16.	"I would not leave my organisation right now because I have a sense of obligation to the people in it."	3.54	1.44
17.	"I owe a great deal to my organisation"	3.13	1.33
Overall mean of organisational commitment		3.28	

4.2.2.5 Level of WE

The descriptive information of WE is shown in Table 4.6. Among the items assessing WE, "I am always carried away and immersed in my work" received the highest mean score of 3.93. This indicates that employees generally feel deeply engrossed and absorbed in their tasks, suggesting a high level of immersion and focus during their workday. This high score suggests that a significant proportion of employees find their work engaging to the extent that they become fully absorbed in their tasks, which is crucial for maintaining high productivity and personal satisfaction at work. On the other end of the spectrum, "I am always eager to work for a very long time" had the lowest mean score of 3.40. While still indicating a moderate level of agreement among respondents, this score suggests that employees may not consistently express

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eagerness to work extended hours. This item highlights a slight variability in how employees perceive their readiness or desire for prolonged work sessions, potentially reflecting differing preferences or energy levels throughout the workday.

The overall mean score of WE across all items is 3.78. This average score provides a comprehensive view of how engaged employees feel in various aspects of their work. It indicates a generally positive level of WE, characterized by enthusiasm, pride in work accomplishments, finding meaning and purpose in tasks, perceiving work as challenging and inspiring, and feeling immersed in job responsibilities.

Table 4. 6: Level of WE

Item	Mean	Std. Deviation
1. "I always appear enthusiastic at work."	3.88	1.18
2. "I am always eager to work for a very long time."	3.40	1.22
3. "I am always proud of the work I do."	3.89	1.23
4. "I always find the best meaning and purpose in the work I do."	3.77	1.11
5. "My work is always challenging and inspiring."	3.82	1.19
6. "I am always carried away and immersed in my work."	3.93	1.10
Overall mean of work engagement	3.78	

4.3 Structural Equation Modelling

This study employs SEM-PLS version 4.0 as the main analytical instrument. The evaluation process in PLS-SEM occurs in two separate stages. The initial phase emphasises the evaluation of the measurement model, specifically assessing the reliability and validity of the constructs. This step guarantees the precise measurement of constructs via their corresponding indicators, utilising assessments such as CA, CR, and AVE. The second stage entails assessing the structural model, which analyses the

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relationships among the variables. This stage evaluates the robustness and importance of the proposed relationships through the analysis of path coefficients, t-values, and p-values. The two stages collectively offer a thorough assessment of the measurement properties and the theoretical relationships posited in the study, thereby ensuring the robustness of the findings.

4.3.1 Measurement Model

The measurement model is assessed by examining five criteria. First the factor loading is assessed. As shown in Figure 4.1, some of the items did not achieve the required level of 0.70.
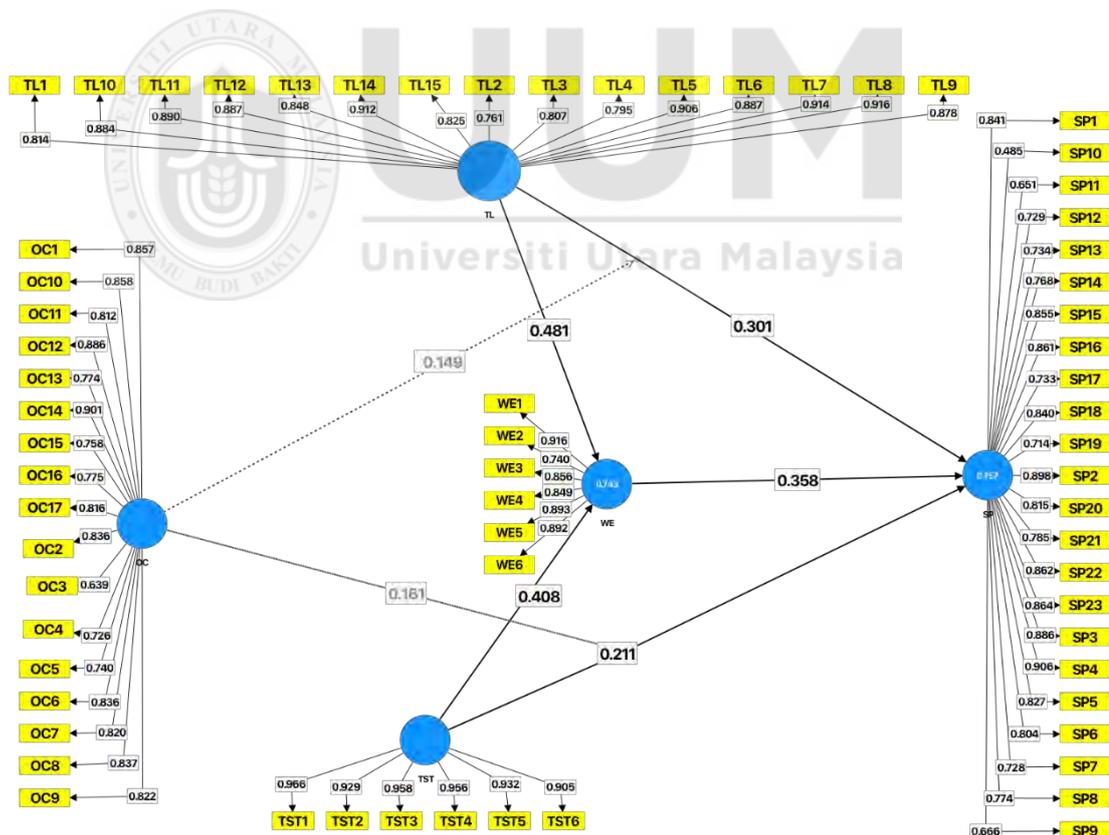
Figure 4. 1: Initial Measurement model

As shown in Figure 4.1, some items such as SP10 and SP11 as well as SP9 from SP has low factor loading (<0.70). In addition, items OC3 from OC has a low factor

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loading. However, after removing OC3, the loading of OC4 and OC5 dropped below 0.70. Therefore, these items were removed to enhance the validity and reliability. Figure 4.2 shows the measurement model after removing SP9, SP10, SP11 and OC3, OC4, OC5. In total, six items were deleted. Factor loading of all variables is displayed in Table 4.7. It shows that all the items have factor loadings above 0.70.
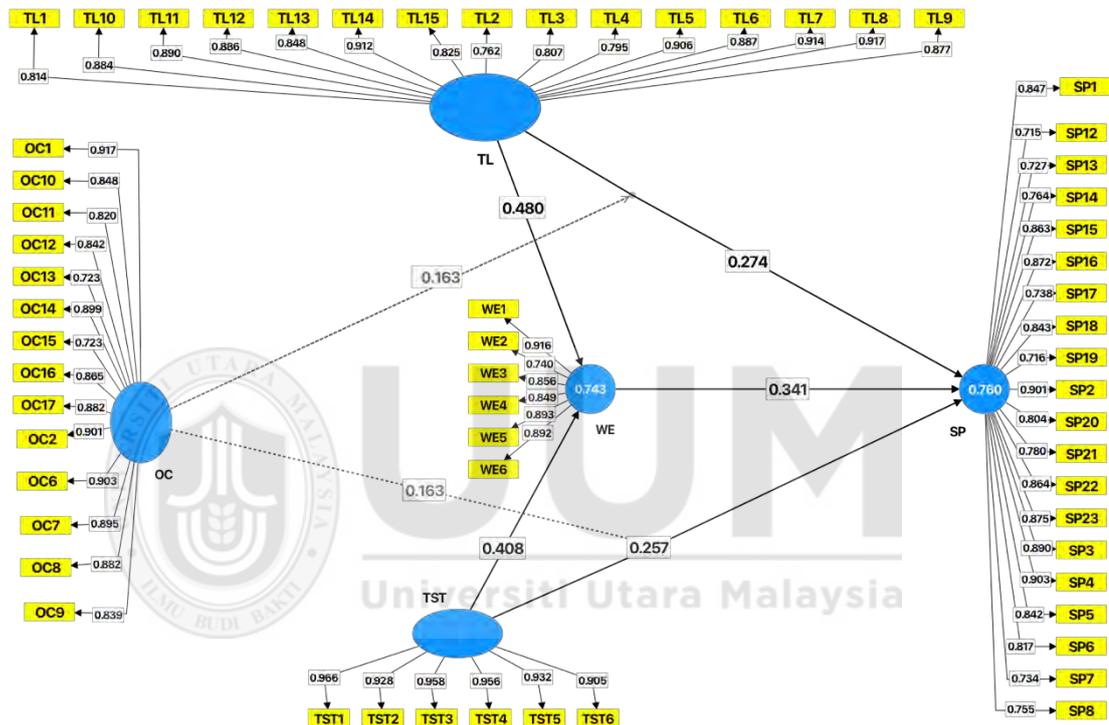
Figure 4. 2: Measurement Model

4.3.1.1 Reliabilities

The reliability assessment includes the CA and CR. Both of which should have values above 0.70 to conclude that the measurement of the variables are reliable. CA is a measure of internal consistency, which assesses how closely related a set of items are as a group. A CA value above 0.70 generally indicates acceptable reliability, meaning the items consistently measure the same underlying construct. In this study, the fact

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that CA exceeds 0.70 suggests that the items are reliably capturing the concept of the variables of this study.

CR is another measure of internal consistency that is similar to CA but is often considered more appropriate for constructs with multiple indicators. A CR value above 0.70 indicates that the items collectively have a high level of reliability in measuring the intended construct. In this study, achieving a composite reliability above 0.70 further confirms that the items are robust and consistently measure the variables of this study. Values of CA and CR are shown in Table 4.7.

4.3.1.2   Convergent Validity

The convergent validity is confirmed using the values of AVE. Values of AVE above 0.50 indicates that more than half implies that the items can explain at least 50% of the variation in the measurement of the variables. An AVE value above 0.50 indicates that more than half of the variance of the indicators is captured by the variable, which suggests good convergent validity. In other words, the items used in the questionnaire are well-related to the underlying construct they are intended to measure—in this case, SP, TL, TSL, OC, and WE. Table 4.7 shows the results of factor loading, CA, CR and AVE.

Table 4. 7: Measurement Model Assessment

Variables	Item	Factor loading>0.70	Cronbach's Alpha>0.70	Composite Reliability>0.70	AVE>0.50
Organisational commitment	**OC1**	0.917	0.911	0.914	0.731
	OC10	0.848			
	OC11	0.82			
	OC12	0.842			

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	OC13	0.723			
	OC14	0.899			
	OC15	0.723			
	OC16	0.865			
	OC17	0.882			
	OC2	0.901			
	OC6	0.903			
	OC7	0.895			
	OC8	0.882			
	OC9	0.839			
SP	SP1	0.847			
	SP12	0.715			
	SP13	0.727			
	SP14	0.764			
	SP15	0.863			
	SP16	0.872			
	SP17	0.738			
	SP18	0.843			
	SP19	0.716			
	SP2	0.901			
	SP20	0.804	0.903	0.905	0.664
	SP21	0.78			
	SP22	0.864			
	SP23	0.875			
	SP3	0.89			
	SP4	0.903			
	SP5	0.842			
	SP6	0.817			
	SP7	0.734			
	SP8	0.755			
Transformational leadership	TL1	0.814			
	TL10	0.884			
	TL11	0.89			
	TL12	0.886			
	TL13	0.848			
	TL14	0.912			
	TL15	0.825	0.905	0.908	0.745
	TL2	0.762			
	TL3	0.807			
	TL4	0.795			
	TL5	0.906			
	TL6	0.887			

	TL7	0.914			
	TL8	0.917			
	TL9	0.877			
Transactional leadership	TSL1	0.966			
	TSL2	0.928			
	TSL3	0.958	0.904	0.909	0.886
	TSL4	0.956			
	TSL5	0.932			
	TSL6	0.905			
Work engagement	WE1	0.916			
	WE2	0.740			
	WE3	0.856	0.928	0.934	0.739
	WE4	0.849			
	WE5	0.893			
	WE6	0.892			

4.3.1.3 Discriminant Validity Assessment

Discriminant validity is achieved when the indicator loading (represented by the square root of AVE) is greater than its cross-loading. In other words, the diagonal values in the correlation matrix (highlighted in Table 4.8) should be greater than the corresponding values in their respective rows and columns. If this condition is met, it indicates that the constructs are distinct from one another. In Table 4.8, all the diagonal values are greater than their corresponding row and column values, which confirms that discriminant validity has been achieved. This means that each construct is unique and captures phenomena that other constructs do not.

Table 4. 8: Measurement Model Assessment

	OC	SP	TL	TSL	WE
OC	**0.855**				
SP	0.230	**0.815**			
TL	0.121	0.510	**0.863**		
TSL	0.156	0.522	0.582	**0.941**	
WE	0.145	0.622	0.440	0.432	**0.859**

HTMT (Heterotrait-Monotrait Ratio) is another method to assess discriminant validity. It compares the average of the HTMT correlations (i.e., correlations of indicators across different constructs) with the average of the HTMT correlations (i.e., correlations of indicators within the same construct). Discriminant validity is established if HTMT values are below 0.85 for conceptually distinct constructs. Table 4.9 shows the HTMT results.

Table 4. 9: HTMT correlation

	OC	SP	TL	TSL	WE
OC	-				
SP	0.233				
TL	0.145	0.726			
TSL	0.165	0.833	0.704		
WE	0.165	0.759	0.782	0.774	-

Cross-loading analysis involves examining the factor loadings of each item on all constructs. An item should load higher on its intended construct than on any other constructs. This further ensures that items are good measures of their respective constructs and not others.

Table 4. 10: Cross Loading

Item	OC	SP	TL	TSL	WE
OC1	0.917	0.158	0.088	0.079	0.155
OC10	0.848	0.183	0.149	0.246	0.148
OC11	0.82	0.193	0.229	0.276	0.21
OC12	0.842	0.158	0.187	0.244	0.175
OC13	0.723	0.218	0.228	0.276	0.271
OC14	0.899	0.232	0.071	0.091	0.123
OC15	0.723	0.211	0.184	0.218	0.194
OC16	0.865	0.161	0.058	0.075	0.047
OC17	0.882	0.155	0.05	0.056	0.062
OC2	0.901	0.163	0.061	0.07	0.075
OC6	0.903	0.194	0.033	0.062	0.057

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OC7	0.895	0.198	0.002	0.013	0.05
OC8	0.882	0.235	0.069	0.108	0.046
OC9	0.839	0.22	0.031	0.032	0.097
SP1	0.177	0.847	0.556	0.598	0.549
SP12	0.15	0.715	0.556	0.474	0.565
SP13	0.112	0.727	0.545	0.505	0.574
SP14	0.198	0.764	0.606	0.549	0.638
SP15	0.183	0.863	0.618	0.617	0.628
SP16	0.186	0.872	0.648	0.672	0.635
SP17	0.22	0.738	0.555	0.556	0.564
SP18	0.173	0.843	0.678	0.607	0.698
SP19	0.2	0.716	0.559	0.563	0.613
SP2	0.157	0.901	0.678	0.608	0.665
SP20	0.193	0.804	0.642	0.62	0.694
SP21	0.205	0.78	0.597	0.603	0.66
SP22	0.207	0.864	0.624	0.649	0.651
SP23	0.185	0.875	0.623	0.658	0.654
SP3	0.209	0.89	0.602	0.641	0.668
SP4	0.231	0.903	0.616	0.603	0.606
SP5	0.179	0.842	0.619	0.672	0.607
SP6	0.159	0.817	0.68	0.693	0.678
SP7	0.212	0.734	0.528	0.601	0.494
SP8	0.235	0.755	0.559	0.542	0.547
TL1	0.087	0.651	0.814	0.612	0.533
TL10	0.171	0.617	0.884	0.637	0.619
TL11	0.164	0.662	0.89	0.621	0.532
TL12	0.077	0.687	0.886	0.655	0.581
TL13	0.138	0.576	0.848	0.622	0.524
TL14	0.08	0.659	0.912	0.695	0.506
TL15	0.059	0.605	0.825	0.659	0.604
TL2	0.035	0.618	0.762	0.668	0.569
TL3	0.109	0.652	0.807	0.632	0.603
TL4	0.101	0.606	0.795	0.669	0.605
TL5	0.076	0.634	0.906	0.619	0.654
TL6	0.064	0.658	0.887	0.600	0.695
TL7	0.181	0.646	0.914	0.625	0.65
TL8	0.079	0.635	0.917	0.630	0.622
TL9	0.136	0.659	0.877	0.653	0.639
TSL1	0.124	0.601	0.565	0.966	0.647
TSL2	0.132	0.676	0.524	0.928	0.673
TSL3	0.141	0.692	0.538	0.958	0.607
TSL4	0.172	0.639	0.548	0.956	0.62

TSL5	0.177	0.627	0.517	0.932	0.683
TSL6	0.133	0.69	0.586	0.905	0.617
WE1	0.142	0.648	0.58	0.534	0.916
WE2	0.207	0.596	0.676	0.669	0.740
WE3	0.080	0.67	0.692	0.671	0.856
WE4	0.108	0.548	0.699	0.684	0.849
WE5	0.077	0.618	0.544	0.543	0.893
WE6	0.143	0.645	0.537	0.582	0.892

4.3.2 Structural Model

In evaluating the structural model as discussed in chapter 3, section 3.8, there is a need to evaluate the explanatory power (R-square) and F-square as well as the path coefficient.

4.3.2.1 R-Square

Hair et al. (2011) provided guidelines for interpreting R^2 values in structural equation modeling, with an R^2 value of 0.75 indicating substantial explanatory power, 0.50 representing moderate explanatory power, and 0.25 signifying weak explanatory power for endogenous latent variables. In this study, the structural model is analysed through various approaches, including direct effect models, a mediating effect model, and moderating effect models. Each model contributes to understanding how TL, TSL, WE, OC, and SP interact. The direct effect model and the mediating effect model are combined in this study due to the nature of the research, which examines the effect of TL and TSL on both SP and WE. The results of the combined model show that R^2 values for SP and WE are 74.5% and 74.3%, respectively. These values suggest that a substantial portion of the variance in both SP and WE can be explained by TL and

TSL. This high R² value indicates the models' strong explanatory power, highlighting the significant influence of leadership styles on these two key outcomes.

When the moderating effect of OC is incorporated into the model, the R² value for SP increases to 76%. This improvement suggests that the inclusion of OC as a moderator further enhances the model's ability to explain variance in SP. The increase in explanatory power demonstrates that OC plays a meaningful role in moderating the relationship between leadership styles and SP, providing a more comprehensive understanding of how these variables interact to influence organisational outcomes. This finding reinforces the importance of considering moderating variables to capture the full dynamics between leadership behaviours and SP.

Table 4. 11: R² of the Models

Model	Work engagement	SP
Mediating effect model	0.743	0.745
Moderating effect of OC	-	0.76

4.3.2.2 F-Square

Hair et al. (2014) provide a detailed explanation of how to determine the effect size for each path model within structural equation modeling by calculating Cohen's f². This method allows researchers to evaluate the specific contribution of individual constructs to the overall explanatory power of the model. The f² value is obtained by observing the change in the R² value when a particular construct is removed from the model. This change in R² indicates the extent to which the omitted construct influences the endogenous (dependent) variable. By calculating f², the effect size of the construct

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on the dependent variable is quantified, providing insight into the relative importance of each variable within the model.

Cohen (1988) categorizes f² values into three levels: 0.02 represents a small effect, 0.15 corresponds to a medium effect, and 0.35 or greater indicates a large effect. These benchmarks are widely used in structural equation modeling to determine the practical significance of the constructs under study. A small f² value suggests that the omitted construct contributes minimally to the variance explained in the dependent variable, whereas larger f² values indicate a more substantial influence.

In the context of this study, Smart PLS software provides f² values as part of the analysis output, making it easier to assess the effect size of each construct in the model. By calculating f² values, researchers can understand how much each leadership style (TL or TSL), WE, and OC contributes to explaining SP. The analysis also helps identify which variables are most critical for driving organisational outcomes. Table 4.12 in this study presents the f² values for the direct effect model, illustrating the effect sizes of the different constructs. This provides a detailed view of how each leadership style impacts SP and WE, and whether their effects are small, moderate, or large according to Cohen's thresholds. Such detailed analysis enhances the robustness of the findings by identifying not only the significance but also the magnitude of the influence of each variable in the model.

Table 4. 12: F² of the Models

Variable	SP	WE
OC	0.040	-
TL	0.047	0.199

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TSL	0.043	0.144
WE	0.120	-
OC x TSL	0.024	-
OC x TL	0.028	-

4.4 Hypotheses Testing

The hypotheses are testing using bootstrapping of 5,000. The criteria to assess the hypotheses is based on P-value (P) of less than 0.05 and T-values of greater than 1.96. Two models are discussed in this study. The first is related to the effect of TL and TSL on SP and WE as well as the mediating role of WE and the second is the moderating effect of OC. Figure 4.3 shows the effect of TL and TSL on SP and WE and it shows also the effect of WE on SP and the mediating effect of WE between TL and TSL on SP.
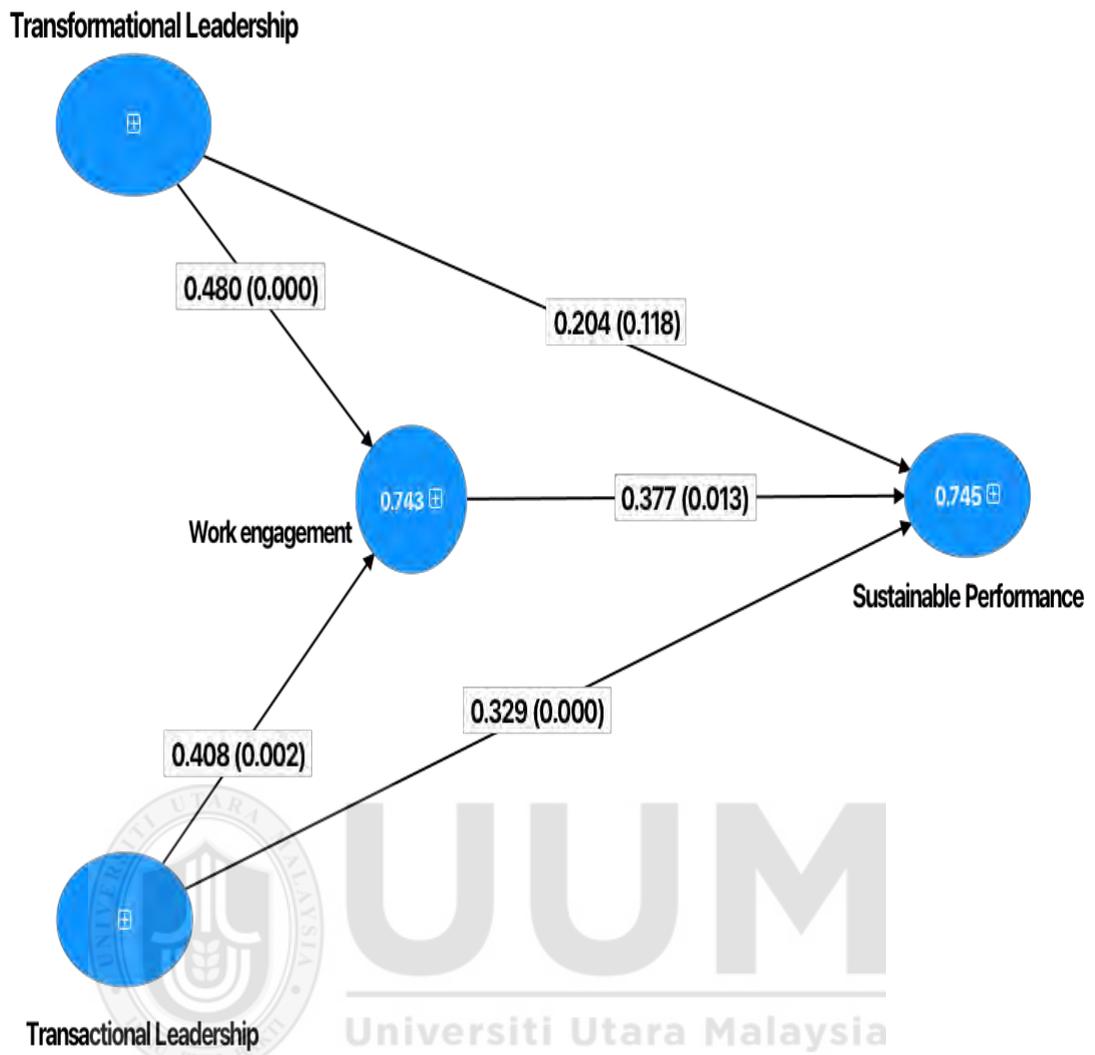
Figure 4. 3: Structural Model of Direct and Indirect Effect

However, Figure 4.3 include the mediating role of WE. Therefore, to find the effect of TL, TSL and WE, the total effect was extracted from the output of the structural model. In Table 4.13, the total effect which is related to the effect of TL and TSL on SP and WE without the mediating role of WE is shown in the Table. The table also shows the indirect effect of TL and TSL on SP via the mediator WE. This was derived from the "specific indirect effects" function in Smart PLS.

Table 4. 13: Results of Hypotheses Testing

H	Path	Coefficient	Std	T-value	P values
Total effect					
H1	Transformational Leadership -> SP	0.385	0.095	4.038	0.000
H2	Transformational Leadership -> Work engagement	0.480	0.131	3.658	0.000
H3	Transactional Leadership -> SP	0.483	0.092	5.276	0.000
H4	Transactional Leadership -> Work engagement	0.408	0.132	3.104	0.002
H5	Work engagement -> SP	0.377	0.152	2.485	0.013
Path Coefficient: Indirect Specific Effect					
H6	Transformational Leadership -> Work engagement -> SP	0.181	0.085	2.132	0.034
H7	Transactional Leadership -> Work engagement -> SP	0.154	0.077	1.999	0.046

4.4.1 Transformational leadership and Sustainable Performance

The first hypothesis of this study (H1) posits a positive relationship between TL and SP, suggesting that higher levels of TL lead to improvements in SP. The results presented in Table 4.13 provide strong empirical support for this hypothesis. Specifically, the coefficient of 0.385 indicates that for every unit increase in TL, there is a corresponding 0.385 unit increase in SP, all else being equal. This positive relationship is statistically significant, as demonstrated by the high t-value of 4.038 and the p-value of 0.000, which is well below the conventional significance threshold of 0.05..

The t-value of 4.038 indicates that the observed relationship between TL and SP is highly significant. In social sciences, a t-value greater than 2 typically suggests that the relationship between the independent and dependent variables is statistically significant, meaning the positive effect of TL on SP is both strong and reliable. Additionally, the p-value of 0.000 indicates a very low probability of the results being

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due to random variation. This provides further confidence that TL plays a meaningful role in shaping SP within the "Ministry of Interior Affairs" in the UAE.

The results imply that TL, which emphasizes inspiring and motivating employees, has a direct and significant influence on enhancing SP. Leaders who exhibit TL behaviours are likely to foster innovation, increase employee engagement, and align their teams with organisational sustainability goals. This relationship is consistent with the broader leadership literature, which highlights the role of TL in promoting long-term organisational sustainability. The findings suggest that by adopting TL practices, the "Ministry of Interior Affairs" can enhance its overall performance and achieve its sustainability objectives more effectively.

4.4.2 Transformational leadership and Work Engagement

The second hypothesis (H2) in this study examines the positive relationship between TL and WE, positing that higher levels of TL lead to enhanced WE among employees. The results presented confirm this hypothesis, as the coefficient for TL's impact on WE is 0.480, indicating a substantial positive effect. This coefficient suggests that an increase in TL is associated with a corresponding increase in WE by 0.480 units, underscoring the influential role of TL in driving employee engagement within the "Ministry of Interior Affairs" in the UAE.

The statistical significance of this relationship is further validated by a t-value of 3.658 and a p-value of 0.000, both of which are well within the accepted range for significance. A t-value greater than 2 typically indicates a statistically significant

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relationship, and the value of 3.658 in this case confirms that the impact of TL on WE is both strong and reliable. Moreover, the p-value being less than 0.05 (specifically, 0.000) indicates that the likelihood of this relationship occurring due to random chance is exceedingly low, providing further confidence in the robustness of the findings.

These results imply that TL plays a crucial role in fostering higher levels of WE among employees. Leaders who adopt TL practices—such as inspiring a shared vision, encouraging innovation, and demonstrating care for individual development—are likely to increase employees' motivation, dedication, and involvement in their work. In the context of the "Ministry of Interior Affairs", this finding suggests that increasing TL behaviours can directly enhance employee engagement, leading to more motivated and committed staff, which is crucial for the organisation's overall effectiveness and long-term success.

4.4.3 Transactional leadership and Sustainable Performance

The third hypothesis (H3) posits that TSL positively influences SP within the "Ministry of Interior Affairs" in the UAE. The findings illustrated in Table 4.13 support this hypothesis. The coefficient of 0.483 signifies a significant positive correlation between TSL and SP, indicating that an increase in TSL behaviours results in a 0.483 unit increase in SP. The implementation of TSL practices, including the establishment of clear performance expectations and the alignment of rewards with specific outcomes, significantly contributes to the enhancement of the ministry's SP.

The t-value of 5.276 substantiates the robustness and dependability of this relationship. A t-value greater than 2 generally indicates a statistically significant relationship. The elevated t-value observed in this case suggests that the effect of TSL on SP is robust and reliable. The p-value of less than 0.05 (specifically, 0.000) indicates that the relationship is statistically significant, suggesting a minimal probability that these results occurred by random chance. The low p-value supports the assertion that TSL is a significant factor affecting SP in the "Ministry of Interior Affairs".

The findings indicate that TSL, characterised by structured rewards, clear communication of expectations, and performance-based feedback, is effective in promoting SP. Within the "Ministry of Interior Affairs", TSL practices likely enhance operational efficiency, improve resource management, and ensure a clearer alignment of organisational objectives with sustainability goals. The results indicate that an increase in TSL within the ministry correlates with a rise in SP, highlighting its significance as a leadership style for fostering long-term success and sustainability in public sector organisations.

4.4.4   Transactional leadership and Work Engagement

Hypothesis 4 asserts that TSL significantly enhances WE. The findings corroborate this hypothesis, revealing a path coefficient of 0.408, which signifies a significant positive correlation between TSL and WE. This coefficient indicates that an increase in TSL behaviours results in a corresponding increase in WE of 0.408 units. This underscores the significant role TSL plays in promoting elevated levels of employee engagement within the "Ministry of Interior Affairs".

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The t-value of 3.104 underscores the importance of this relationship. A t-value exceeding 1.96 indicates statistical significance, implying that the observed relationship is unlikely to arise from random variation. The t-value of 3.104 exceeds the established threshold, indicating a robust and reliable effect of TSL on WE. The p-value of 0.002 is significantly lower than the conventional threshold of 0.05 (Hair et al., 2014), indicating that the relationship between TSL and WE is statistically significant.

The findings indicate that TSL effectively enhances employee WE within the "Ministry of Interior Affairs". TSL practices, including the establishment of clear expectations, the provision of performance-based rewards, and the implementation of structured feedback mechanisms, are likely to enhance employee motivation and engagement in their work. TSL clarifies employee expectations and provides appropriate rewards, thereby cultivating a work environment that promotes higher engagement levels, essential for sustaining the overall efficiency and performance of police forces within the ministry.

4.4.5 Work Engagement and Sustainable Performance

Hypothesis 5 explores the impact of WE on SP. The results of the analysis confirm a significant positive relationship between WE and SP, with a path coefficient of 0.377. This coefficient indicates that an increase in WE leads to a corresponding 0.377 unit increase in SP, demonstrating that higher levels of employee engagement directly contribute to improvements in SP within the organisation.

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The t-value of 2.485, which exceeds the critical threshold of 1.96, further supports the strength of this relationship. A t-value above 1.96 indicates that the relationship between WE and SP is statistically significant and not likely to have occurred by chance. Additionally, the p-value of 0.013, which is well below the 0.05 significance level, confirms the robustness of the findings, highlighting that the relationship between WE and SP is both statistically and practically significant.

These results suggest that WE is a crucial factor in enhancing SP within the "Ministry of Interior Affairs". Engaged employees are more motivated, productive, and aligned with the organisation's goals, which translates into better long-term performance outcomes. The positive association between WE and SP underscores the importance of fostering a work environment that promotes high levels of engagement, as this contributes significantly to achieving sustainability goals and overall organisational success.
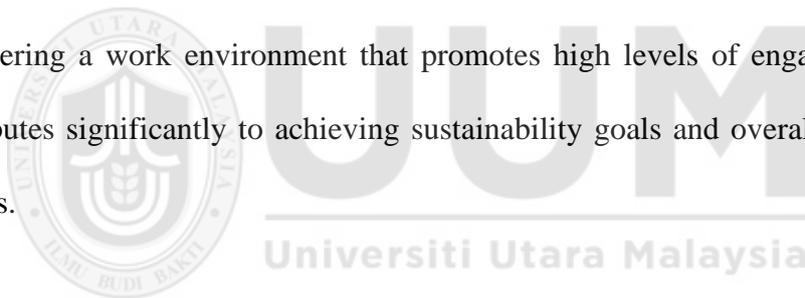
4.4.6 Mediating Role of Work Engagement

Hypothesis 6 examines the mediating effect of WE on the relationship between TL and SP. The results demonstrate that WE fully mediates this relationship, as indicated by an indirect effect path coefficient of 0.181, a t-value of 2.132, and a p-value of 0.034. These values confirm that WE plays a significant role in explaining how TL influences SP. The fact that the direct effect of TL on SP became insignificant (coefficient = 0.204, p > 0.05) when WE was included in the model, as shown in Figure

4.3, further confirms that the mediation is full. This indicates that TL does not directly influence SP but instead affects SP through its positive impact on WE. The path coefficient of 0.181 suggests that TL enhances SP by increasing WE, which, in turn, drives better organisational outcomes. The statistical significance of this mediation is supported by the t-value ($2.132 > 1.96$) and the p-value ($0.034 < 0.05$), confirming that WE is a critical mediator in this relationship.

Hypothesis 7 investigates the mediating role of WE in the relationship between TSL and SP. The results indicate that WE partially mediates this relationship, as shown by an indirect effect path coefficient of 0.154, a t-value of 1.999, and a p-value of 0.046. Although the t-value is marginally above the 1.96 threshold, it still indicates borderline statistical significance, and the p-value of 0.046 is slightly below the 0.05 significance level, supporting the hypothesis. The path coefficient of 0.154 suggests that TSL indirectly influences SP through WE, though the effect size is smaller compared to TL. Unlike in Hypothesis 6, the direct effect of TSL on SP remains significant (though reduced), indicating partial mediation. This suggests that while TSL has a direct positive impact on SP, its effect is also enhanced through increasing WE. Thus, WE plays a role in mediating the relationship between TSL and SP, although the mediation is not as strong as it is for TL.

In conclusion, both hypotheses provide evidence for the mediating role of WE in the relationships between leadership styles (TL and TSL) and SP. WE fully mediates the relationship between TL and SP, while it partially mediates the relationship between TSL and SP. The results suggest that TL's influence on SP is primarily channelled

through WE, whereas TSL directly influences SP but is also mediated to a lesser extent by WE.

4.4.7   Moderating Role of OC

Based on Hair et al. (2017), the moderating effect of OC can be examined by multiplying the indicators of OC with the independent variables such as TL and TSL. This results in a moderating effect. However, with Smart PLS 4, the moderating is calculated without creating a new moderating effect. As shown in Figure 4.4, the moderating role of OC is significant with TL and TSL.
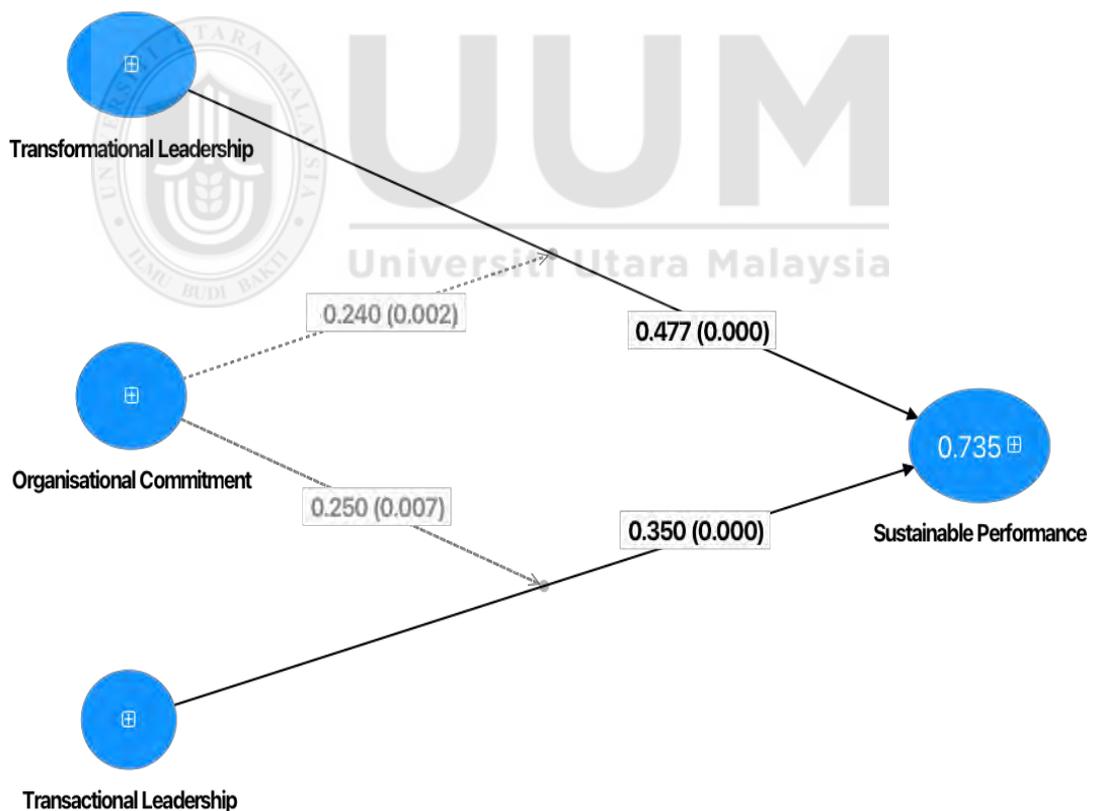
Figure 4. 4: Moderating Effect of OC

Based on Figure 4.4, the results of testing the moderating effect is shown in Table 4.14.

Table 4. 14: Results of Testing the Moderator

H	Path	Coefficient	Std	t-value	P values
H8	Organisational Commitment x Transformational Leadership -> SP	0.240	0.076	3.131	0.002
H9	Organisational Commitment x Transactional Leadership -> SP	0.250	0.092	2.718	0.007

For H8, the moderating effect of OC between TL and SP was examined. The path coefficient for this moderation was 0.240, with a t-value of 3.131, and a p-value of 0.002. These results indicate a significant positive interaction effect. Specifically, the coefficient of 0.240 suggests that the combined effect of high OC and TL positively influences SP. The t-value of 3.131 exceeds the critical value of 1.96, and the p-value of 0.002 is well below the 0.05 threshold, providing strong evidence that this moderating effect is statistically significant. Thus, it can be concluded that OC amplifies the positive impact of TL on SP.

For H9, The moderating effect between OC and TSL on SP was also investigated. The path coefficient for this moderation was 0.250, with a t-value of 2.718, and a p-value of 0.007. These results indicate a significant positive moderating effect. The coefficient of 0.250 suggests that the combined influence of OC and TSL positively affects SP. The t-value of 2.718, which is above the critical value of 1.96, and the p-value of 0.007, which is below the 0.05 threshold, confirm the statistical significance of this moderation. Therefore, it can be inferred that OC enhances the positive effect of TSL on SP.

4.4.8   Summary of Hypotheses Testing

In this study, nine hypotheses were tested. Five of which are direct effect hypotheses while two were mediating and two were moderating hypotheses. Table 4.15 shows a summary of the hypotheses testing. It shows that all the hypotheses were supported. The data was filtered where missing values and outliers were checked and handled. This could be the reasons behind all the significant hypotheses.

Table 4. 15: Summary of Hypotheses

H	Path	Coefficient	Std	T-value>1.96	P values<0.05
H1	Transformational Leadership -> SP	0.385	0.095	4.038	0.000
H2	Transformational Leadership -> Work engagement	0.480	0.131	3.658	0.000
H3	Transactional Leadership -> SP	0.483	0.092	5.276	0.000
H4	Transactional Leadership -> Work engagement	0.408	0.132	3.104	0.002
H5	Work engagement -> SP	0.377	0.152	2.485	0.013
H6	Transformational Leadership -> Work engagement -> SP	0.181	0.085	2.132	0.034
H7	Transactional Leadership -> Work engagement -> SP	0.154	0.077	1.999	0.046
H8	Organisational Commitment x Transformational Leadership -> SP	0.240	0.076	3.131	0.002
H9	Organisational Commitment x Transactional Leadership -> SP	0.250	0.092	2.718	0.007

4.5   Summary

This study was conducted to examine the effect of TL and TSL on WE and SP. the data was collected from middle management level in police forces in UAE. The descriptive statistics was presented and it showed that majority of the respondents are males in their middle career and they have less than ten years of experience with rank as officers and supervisor. The descriptive statistics of the variables indicated that all the variables have high level.

The results of testing the measurement model and structural model indicated that some of the items have low factor loading and they were removed. The reliabilities and validities were confirmed. Th structural model was assessed. More than 71% of the variation in SP was explained by the variables of this study. The result of the hypotheses testing showed that the TL and TSL affected positively the WE and SP. WE affected positively SP and mediated fully the effect of TL on SP and partially the effect of TSL on SP. OC moderated the effect of TL and TSL on SP.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1   Introduction

In this chapter, the validation of experts, discussion, implications and conclusion are discussed. The chapter is divided into six sections. The first presents an overview of the chapter followed by validation of the findings using experts' feedback and input. The third section presents the discussion of the findings. In which the objective of this study is fulfilled. The next section presents the theoretical and practical implications of this study. The limitations of the findings are highlighted in this chapter followed by the directions of future work. The last section provides the conclusion of this study.

5.2   Expert Validation

The interviews with the experts were conducted through a structured approach, using a questionnaire form due to the logistical constraints and time limitations faced by the experts. Initially, in-person or virtual interviews were planned to allow for real-time interaction and deeper discussion. However, due to repeated postponements and scheduling conflicts, it became clear that alternative arrangements were needed to ensure the experts could still contribute their valuable insights to the study without being further delayed.

To accommodate the experts' limited availability, it was mutually agreed to adopt a more flexible method by sending the interview questions in the form of a structured questionnaire via email. This approach allowed the experts to provide their responses at a time convenient for them, ensuring that their feedback was thoughtful and comprehensive despite their busy schedules. The use of forms also facilitated more efficient communication, as the experts could take time to reflect on the questions before responding, rather than being constrained by the time pressures of a live interview setting.

The structured questionnaire included a series of open-ended questions tailored to the specific areas of expertise of each participant. The questions were designed to elicit detailed feedback on key aspects of the research, such as the validity of the theoretical frameworks, the practical implications of the findings, and the appropriateness of the methodologies used. This format allowed the experts to provide comments, suggestions, and critiques in a systematic manner, ensuring that all relevant areas of the study were covered.

Once the completed forms were returned, the responses were carefully analysed and integrated into the study's validation process. The experts' feedback was not only instrumental in reinforcing the empirical findings but also in offering additional perspectives that enriched the interpretation of the results. This method of conducting interviews ensured that the experts' input was captured in a manner that respected their time constraints while still achieving the goal of a comprehensive validation process.

5.2.1   Justification of Expert Validation

Expert validation is essential in the research process, particularly after empirical testing, as it enhances the credibility, rigour, and depth of the findings. Empirical testing offers statistical evidence regarding the relationships among variables, whereas expert validation guarantees that the findings are contextually relevant, practically applicable, and consistent with established theoretical frameworks. This process entails collecting insights and assessments from experts in the field, thereby reinforcing the study's conclusions and improving the reliability of the results (Creswell & Creswell, 2017).

Expert validation is crucial as it offers an external perspective for evaluating the validity and relevance of empirical findings (Miles & Huberman, 2014). Empirical data, while statistically rigorous, may occasionally lack practical applicability or fail to account for field-specific nuances. Experts, owing to their extensive experience and knowledge, can critically assess whether the findings are statistically significant and meaningful in real-world contexts. In leadership and organisational studies, empirical findings may indicate a statistically significant relationship between leadership styles and performance. However, experts can offer nuanced insights into the practical implications of these dynamics, taking into account factors such as organisational culture, industry-specific challenges, and regional variations (Yin, 2017).

Furthermore, expert validation helps in recognising possible limitations within the research design or data interpretation that empirical testing may overlook. Bell et al., (2018) observes that empirical testing depends on particular models and assumptions, which may not adequately address intricate real-world situations. Experts can evaluate

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if the methodologies employed in the study, including the selection of statistical tests and the operationalisation of variables, conform to established best practices and if the conclusions derived from the data are sound. In research investigating leadership styles and SP, scholars may scrutinise whether the study sufficiently considers contextual factors such as employee motivation or external environmental challenges, which may not be entirely represented through quantitative analysis alone (Maxwell, 2013).

Furthermore, expert validation improves the transferability of findings across various contexts and settings (Fritschi et al., 2003). Empirical testing confirms the internal validity of the study within the specific dataset employed, while expert validation evaluates the generalisability of the findings. Experts can assess the applicability of the findings across various organisational or cultural contexts, providing insights into the potential extension of the conclusions beyond the specific sample utilised in the research. Experts in leadership may evaluate the applicability of findings concerning TL within a public sector organisation, such as the "Ministry of Interior Affairs" in the UAE, to private sector organisations or diverse cultural contexts (Kara, 2017).

Expert validation serves to connect theoretical frameworks with practical applications, offering critical insights into the real-world implications of research outcomes. Empirical results provide theoretical contributions, allowing experts to assess their practical value for policymakers, organisational leaders, and practitioners. In leadership studies, experts evaluate the applicability of findings for decision-makers concerning leadership development, organisational change, or performance enhancement strategies. This feedback guarantees that the research is both

academically rigorous and practically applicable, thereby enhancing its significance for practitioners in the field (Kara, 2017).

5.2.2 Process of Selecting Experts

The process of selecting three experts for this study's validation was guided by the need for diversity in expertise, relevance to the research topic, and depth of academic and professional experience. The number of experts was limited to three to ensure a balanced yet comprehensive review, allowing for varied perspectives without overcomplicating the discussion. Each expert was chosen for their specific knowledge areas, which together provide a thorough validation of the research findings related to leadership styles, WE, and SP within the context of a public sector organisation.

Three experts were selected to offer a range of perspectives while maintaining focus and clarity in the validation process. This number is sufficient to ensure that the feedback covers different academic and professional lenses, allowing for triangulation of opinions without diluting the depth of individual assessments. Each expert represents a distinct field related to the research topic, thus providing a multi-faceted evaluation that strengthens the study's credibility.

The first expert (Expert 1) was chosen for their extensive academic background in leadership theories, specifically focusing on transformational and TSL. With a robust publication record on leadership styles in both public and private sectors, this expert's insights are invaluable for evaluating the study's hypotheses regarding the direct and indirect effects of leadership on SP. Their experience includes research on how leadership styles influence employee behavior and organisational outcomes, which

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aligns directly with the study's exploration of leadership's impact on WE and performance in a structured institution.

The second expert (Expert 2) was selected due to their expertise in organisational behavior and performance management, particularly within public sector organisations in the Middle East. Their research focuses on how leadership styles interact with organisational culture and employee engagement, making them an ideal choice to assess the study's context. This expert has conducted extensive research on the role of leadership in shaping organisational outcomes in hierarchical and structured environments, such as governmental institutions, which mirrors the setting of the Ministry of Interior in this study. Their regional focus ensures that they bring cultural and institutional insights that are critical for evaluating the study's findings.

The third expert (Expert 3) was chosen for their specialization in organisational psychology, with a focus on WE and its psychological underpinnings. This expert's research bridges the gap between leadership styles and employee outcomes, specifically examining how leadership fosters engagement and performance in various organisational contexts. Their knowledge of the psychological factors that drive WE is essential for validating the mediating role of engagement in the relationship between leadership and SP. Additionally, this expert's focus on how different leadership approaches influence psychological outcomes ensures that the study's findings are critically assessed from an employee-centric perspective.

5.2.3 Expert Evaluation of the Study

The interviews with the experts were conducted through a structured approach, using a questionnaire form due to the logistical constraints and time limitations faced by the experts. Initially, in-person or virtual interviews were planned to allow for real-time interaction and deeper discussion. However, due to repeated postponements and scheduling conflicts, it became clear that alternative arrangements were needed to ensure the experts could still contribute their valuable insights to the study without being further delayed.

To accommodate the experts' limited availability, it was mutually agreed to adopt a more flexible method by sending the interview questions in the form of a structured questionnaire via email. This approach allowed the experts to provide their responses at a time convenient for them, ensuring that their feedback was thoughtful and comprehensive despite their busy schedules. The use of forms also facilitated more efficient communication, as the experts could take time to reflect on the questions before responding, rather than being constrained by the time pressures of a live interview setting.

The structured questionnaire included a series of open-ended questions tailored to the specific areas of expertise of each participant. The questions were designed to elicit detailed feedback on key aspects of the research, such as the validity of the theoretical frameworks, the practical implications of the findings, and the appropriateness of the methodologies used. This format allowed the experts to provide comments, suggestions, and critiques in a systematic manner, ensuring that all relevant areas of the study were covered.

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Once the completed forms were returned, the responses were carefully analysed and integrated into the study's validation process. The experts' feedback was not only instrumental in reinforcing the empirical findings but also in offering additional perspectives that enriched the interpretation of the results. This method of conducting interviews ensured that the experts' input was captured in a manner that respected their time constraints while still achieving the goal of a comprehensive validation process.

The first question was related to the effect of TL on SP. Question 1: How do you perceive the overall impact of TL on SP in public sector organisations like the "Ministry of Interior Affairs"?

Expert 1: TL significantly impacts SP in public sector organisations like the "Ministry of Interior Affairs" by fostering a shared vision that aligns with long-term sustainability objectives. This leadership style encourages innovation and forward-thinking, which are critical to achieving sustainability. For example, in a green technology initiative within the Ministry, TL played a key role in guiding employees toward adopting energy-efficient practices. The leader's ability to motivate staff to see beyond immediate results and focus on the long-term benefits of sustainability directly contributed to the program's success in reducing carbon emissions.

Expert 2: In my experience, TL goes beyond traditional managerial practices by inspiring employees to commit to broader sustainability goals. I witnessed a transformational leader in the Ministry implement a comprehensive waste management system that not only reduced waste but also engaged employees in finding innovative solutions to waste reduction. This leadership style encouraged a

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mindset shift among employees, making them more proactive in seeking sustainable solutions, thereby enhancing the overall sustainability of the organisation.

Expert 3: TL has proven highly effective in fostering SP by promoting a culture of continuous improvement and long-term planning. For instance, a transformational leader in the Ministry introduced a water conservation initiative. By involving employees in the process, the leader created a sense of ownership and responsibility, resulting in a 15% reduction in water consumption. The leader's ability to inspire employees to contribute to the initiative and understand its long-term environmental benefits made a significant difference in the Ministry's sustainability efforts.

Overall, TL has a profound positive impact on SP within public sector organisations like the "Ministry of Interior Affairs". Through visionary leadership and employee engagement, transformational leaders inspire a long-term focus on sustainability initiatives such as green technology, waste management, and resource conservation.

The second question was related to the effect of TSL on SP. Question 2: How does TSL affect SP in public sector organisations like the "Ministry of Interior Affairs"?

Expert 1: TSL positively impacts SP by establishing clear expectations and linking rewards to performance metrics. For example, in the Ministry, employees were rewarded based on their success in meeting sustainability targets, such as reducing paper waste. The leader's use of performance-based incentives ensured that employees were motivated to meet these goals, leading to measurable improvements in the

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organisation's sustainability outcomes. This approach provided structure and accountability, which are crucial in public sector environments.

Expert 2: TSL thrives in settings where structured goals and performance monitoring are essential for achieving sustainability. In one case, a leader implemented a recycling program where employees were rewarded for reaching specific recycling targets. This incentive system increased recycling rates by 20% over a year. The clear, reward-based framework motivated employees to focus on sustainability goals, and the tangible outcomes reflect the effectiveness of TSL in driving SP.

Expert 3: In my experience, TSL is effective in promoting SP when there is a direct link between EP and rewards. For example, in the Ministry, a program rewarded employees who achieved lower energy usage, leading to significant energy savings across departments. This performance-oriented approach ensured that employees remained focused on sustainability goals, knowing that their efforts would be recognized and rewarded. This shows that TSL is particularly useful in settings that require adherence to strict sustainability guidelines and performance-based incentives.

Overall, TSL positively influences SP by creating a structured, reward-based environment. Leaders who clearly link performance outcomes to sustainability goals, such as reducing waste or energy usage, motivate employees to achieve measurable improvements in sustainability.

The third question asked the experts about the impact of TL on WE. Question 3: What role does TL play in improving WE within public sector organisations?

Expert 1: TL enhances WE by involving employees in the decision-making process and giving them a sense of ownership over their work. In the Ministry, employees working on a sustainability project were more engaged when their leader encouraged them to contribute ideas and participate actively. This inclusive approach led to increased commitment and enthusiasm for the project, resulting in better outcomes. Employees felt that their contributions mattered, which significantly boosted engagement.

Expert 2: I have observed that TL creates a work environment where employees feel inspired and motivated to contribute beyond their assigned tasks. In one case, a transformational leader in the Ministry fostered a culture of continuous learning, which improved employee engagement. The leader emphasized the importance of sustainability and provided employees with opportunities for professional development in this area, which not only increased engagement but also helped develop expertise that further enhanced SP.

Expert 3: In my experience, TL directly correlates with higher levels of WE, especially when employees feel supported and valued. In the Ministry, transformational leaders created a positive work culture where employees were encouraged to collaborate on sustainability initiatives. This not only boosted morale but also led to innovative solutions that improved the Ministry's environmental practices. The sense of purpose and shared responsibility fostered by TL greatly enhanced employee engagement.

Therefore, based on the experts' feedback, TL plays a crucial role in improving WE by involving employees in meaningful ways, recognizing their contributions, and

fostering a supportive and inclusive work environment. This increased engagement leads to better outcomes in sustainability initiatives.

The fourth question asked about the effect of TSL on WE. Question 4: How does TSL influence WE in public or private sector settings?

Expert 1: TSL positively influences WE by setting clear goals and offering immediate feedback and rewards. In a project within the Ministry aimed at reducing operational waste, employees became more engaged when they knew their performance was directly linked to rewards such as bonuses or recognition. This approach created a results-oriented environment where employees felt motivated to meet the set sustainability targets.

Expert 2: TSL enhances engagement by providing a structured framework where employees know exactly what is expected of them. In one example, a leader in the Ministry incentivized employees to reduce energy consumption. The clear link between their efforts and tangible rewards led to higher engagement levels, as employees were motivated to meet the set goals and receive the promised rewards.

Expert 3: I have found that TSL can increase WE when employees are rewarded for meeting specific sustainability targets. In a recycling program within the Ministry, employees received bonuses for meeting monthly recycling quotas, which increased their engagement and commitment to the initiative. The transactional approach worked well in this context because employees were motivated by the direct link between their performance and rewards.

Accordingly, it can be concluded that TSL influences WE by providing a structured, reward-based system. Employees are more engaged when their efforts are directly tied to clear performance expectations and rewards, especially in sustainability initiatives.

The fifth question was related to the impact of WE on SP. Question 5: From your experience, how does WE contribute to improving SP in public sector organisations like the "Ministry of Interior Affairs"?

Expert 1: WE is crucial for improving SP because engaged employees are more proactive and committed to achieving long-term goals. In the Ministry, highly engaged employees took the lead on sustainability projects such as reducing energy usage, and their enthusiasm contributed to significant improvements in overall sustainability performance. Their willingness to go above and beyond was directly tied to their level of engagement.

Expert 2: I have observed that WE directly translates into better sustainable outcomes. Engaged employees are more likely to participate in and take ownership of sustainability initiatives, leading to more effective implementation. In one example, employees working on a project to reduce water consumption showed higher levels of engagement, which resulted in a 10% reduction in water usage across the Ministry.

Expert 3: WE plays a critical role in driving SP. In the Ministry, employees who were deeply engaged in their work were more committed to the organisation's sustainability goals, actively seeking out new ways to reduce waste and improve efficiency. Their

engagement made the difference between a project that merely meets its targets and one that exceeds expectations in terms of sustainability impact.

Therefore, WE significantly contributes to improving SP, as engaged employees are more proactive, innovative, and committed to achieving sustainability goals. Their involvement leads to more effective implementation of sustainability initiatives in the public sector.

The sixth question sought to find the mediating role of WE between TL and SP. Question 6: How does WE mediate the relationship between TL and SP?

Expert 1: WE acts as a mediator between TL and SP by linking the leader's vision with employees' actions. In the Ministry, transformational leaders increased WE by involving employees in sustainability initiatives, which, in turn, led to better sustainability outcomes, such as reduced energy consumption. Engaged employees were more willing to implement the leader's vision and contribute to long-term sustainability goals.

Expert 2: TL boosts WE, which then enhances SP. In one instance, a transformational leader motivated employees to actively participate in sustainability initiatives, and their engagement resulted in a successful recycling program that exceeded its targets. Without high levels of engagement, it would have been difficult to achieve such positive outcomes.

Expert 3: Engagement is the bridge between TL and SP. Transformational leaders in the Ministry increased employee engagement by creating a shared sense of responsibility for sustainability, and this engagement translated into improved performance outcomes, such as reduced waste and resource conservation.

Therefore, WE mediates the relationship between TL and SP by motivating employees to actively contribute to the leader's sustainability vision. Engaged employees are more likely to drive sustainability initiatives, resulting in better outcomes.

The seventh question asked the experts about their opinion regarding the mediating role of WE between TSL and SP. Question 7: How does WE mediate the relationship between TSL and SP?

Expert 1: In a TSL framework, WE mediates the relationship by ensuring employees are motivated to meet performance-based sustainability goals. In one project, employees were more engaged when their efforts to reduce energy usage were rewarded, and this engagement directly contributed to the project's success.

Expert 2: TSL increases WE by providing clear incentives for meeting sustainability targets. In the Ministry, employees who were rewarded for reaching recycling targets showed higher engagement levels, which in turn led to better sustainability outcomes. The rewards served as a motivating factor, enhancing engagement and performance.

Expert 3: Engagement mediates the relationship between TSL and SP by motivating employees to meet performance expectations. In one example, employees were

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rewarded for reducing paper waste, and their engagement in the project resulted in significant savings and improved sustainability.

WE mediates the relationship between TSL and SP by motivating employees to achieve sustainability targets. Engaged employees are more likely to perform well when their efforts are rewarded, leading to better sustainability outcomes.

The eighth question ask about the role of OC as a moderating variable between TL and SP. Question 8: What role does OC play in moderating the relationship between TL and SP?

Expert 1: OC strengthens the relationship between TL and SP. In the Ministry, employees who were highly committed to the organisation were more willing to align with the leader's sustainability vision, leading to better implementation of green initiatives.

Expert 2: In my experience, OC enhances the impact of TL on SP. When employees are committed to the organisation, they are more likely to embrace TL and actively contribute to sustainability projects, as seen in a recent waste reduction initiative in the Ministry.

Expert 3: OC amplifies the effects of TL. In the Ministry, committed employees were more engaged in achieving the sustainability goals set by their leaders, resulting in improved environmental outcomes such as reduced water usage.

Therefore, experts agreed that OC moderates the relationship between TL and SP by enhancing employees' alignment with the leader's vision, leading to more effective implementation of sustainability initiatives.

The last question asked about the moderating role of OC between TSL and SP. Question 9: How does OC moderate the relationship between TSL and SP?

Expert 1: OC increases the effectiveness of TSL in promoting SP. In one example, committed employees in the Ministry were more motivated to meet energy-saving targets when their performance was tied to rewards, leading to better outcomes.

Expert 2: I have observed that OC strengthens the relationship between TSL and sustainability. Employees with high commitment levels responded better to the reward-based system, resulting in higher engagement and improved sustainability performance in a recycling program.

Expert 3: OC moderates the relationship between TSL and SP by amplifying the effects of the reward system. In the Ministry, committed employees were more motivated to meet sustainability benchmarks, which led to significant improvements in resource conservation.

OC enhances the relationship between TSL and SP by increasing employee motivation to meet sustainability targets. The presence of high commitment makes TSL more effective in achieving sustainability outcomes.

Based on the above nine question, it can be concluded that the experts' responses consistently highlight the critical role of both TL and TSL leadership in promoting SP, with WE and OC acting as key mediating and moderating factors. TL fosters a shared vision that inspires long-term sustainability, while TSL provides a structured, reward-based approach to meeting sustainability goals. WE enhance the impact of both leadership styles by motivating employees to actively contribute to sustainability initiatives. Meanwhile, OC strengthens the effectiveness of leadership by aligning employees' efforts with the organisation's sustainability objectives, making both leadership styles more impactful in achieving SP in the public sector.

5.3   Discussion

This study has developed four research questions and objectives. Overall, the study aimed to find the effect of TL and TSL on WE and SP as well as the effect of WE on SP and the mediating role of WE and the moderating role of OC between TL and TSL, and SP. Specifically, the objectives of this study was listed as follows:

1. To analyse the impact of leadership style (TL and TSL) on WE and SP.

2. To evaluate the effect of WE on SP.

3. To assess the mediating role of WE between leadership style (TL and TSL) and SP.

4. To investigate the moderating role of OC between leadership style (TL and TSL) and SP.

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5.3.1 Transformational Leadership, Work Engagement, and Sustainable Performance

The first research objective sought to find the effect of TL on WE and SP. the statement of the objective was stated as follows: To examine the impact of leadership style (TL and TSL) on WE and SP. In this section, the first part that is related to the effect of TL on WE and SP is discussed. Based on this objective four hypotheses were developed two of them are related to the effect of TL on WE and SP. The result of testing the hypotheses indicated that the effect of TL on SP is positive and significant supporting the first hypothesis of this study and implying that the increase in the level of TL can lead to an increase in the SP of ministry of interior affair in UAE. TL can have a positive effect on SP and this positive relationship could be due to several factors as shown in the descriptive statistics of TL in Chapter 4.

The justification for this hypothesis lies in several key aspects of TL as reflected in the high mean scores of the corresponding items. Leaders who have a clear understanding of goals and future direction, can effectively align employee efforts towards these objectives. This alignment ensures that the organisation moves cohesively towards long-term goals, which is crucial for SP. Furthermore, the encouragement of innovative thinking and adaptability, fosters a culture that is resilient to change and capable of continuous improvement. Innovation and adaptability are essential for maintaining performance in a dynamic environment, allowing the ministry to thrive amidst changes. Additionally, the consistent recognition and commendation of good work, reflected, motivate employees to sustain high performance levels. This motivation is key to maintaining consistent and long-term performance.

In line with these findings, TL theory suggested that employees can contribute effectively to the performance when they are being taken care of and where the leaders balance between their interest and the organisational interest. Leaders who devoted their time and effort to develop the skills and capabilities of employees can achieve better overall performance (Haliday, 2018; Sulamuthu & Yuso, 2018). The finding also aligns with several previous studies that have demonstrated the multifaceted impact of TL on organisational outcomes. Overstreet et al. (2013) found that TL enhances organisational innovativeness, which in turn significantly contributes to operational and financial performance. Additionally, research by Chen et al. (2014) on Green TL demonstrated its positive association with green performance, highlighting TL's role in driving sustainability initiatives. Althnayan et al. (2022) further supported this by identifying a significant link between environmental TL and organisational SP within petrochemical companies.

In line with previous studies and with the findings of this study, the experts consistently highlighted that TL's impact on SP is due to its ability to inspire employees toward long-term sustainability goals. As noted by Expert 1, TL creates a shared vision within the organisation, fostering a culture of innovation and adaptability, which are essential for SP in a dynamic environment like the "Ministry of Interior Affairs". Moreover, Expert 2 pointed out how TL instils a mindset shift among employees, making them more proactive in finding innovative solutions to sustainability challenges. Expert 3 added that TL fosters employee ownership and responsibility, as seen in a water conservation initiative where engaged employees achieved tangible results in sustainability efforts. This reflects the study's conclusion that transformational leaders' ability to develop employee capabilities and encourage

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innovation directly leads to improved SP, which is critical in the "Ministry of Interior Affairs".

The second hypothesis found that TL affected positively WE. This implies that the increase in practicing TL can lead to a positive outcome such as WE among police forces in the "Ministry of Interior Affairs" in UAE. This could be due to the notion that TL foster a sense of belonging and pride among employees. When employees feel proud and positive about their work and organisation, their engagement levels are likely to increase. This emotional connection enhances their commitment and enthusiasm. Furthermore, the personal consideration and thoughtfulness shown by leaders indicate that employees feel valued and cared for. This consideration for personal well-being strengthens the emotional bond between employees and their leaders, leading to higher WE. Additionally, challenging employees to think differently and fostering personal growth keep employees intellectually stimulated and engaged. Engaged employees are more likely to invest effort and creativity into their work, thereby enhancing overall WE.

TL theory suggested that relationship based leadership such as TL can increase the belonging of employees to their organisations (Bass & Avolio 2013). Therefore, when leaders in police forces practice the TL, they create an emotional bond between the ministry and the employees and increase their WE. This finding is also in agreement with the findings of previous studies. Dai et al. (2022) found that TL enhances OC and SP, highlighting how TL can boost employee engagement. Furthermore, Kafetzopoulos and Gotzamani (2022) confirmed that TL positively affects firm performance across various dimensions, including employee engagement. Based on

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the descriptive statistics, the current study supports this by indicating that transformational leaders in the ministry create a supportive and positive work environment. High scores on items related to inspiring pride and positivity suggest that employees feel valued and proud of their work, significantly enhancing WE. This sense of pride and positivity, also emphasized by Overstreet et al. (2013) and Jiang et al. (2017) who demonstrates that TL fosters an engaging work culture where employees are more likely to be enthusiastic and committed to their roles. Thus, the alignment of the current study's findings with previous research underscores TL's critical role in boosting WE across various organisational settings.

The experts further reinforced the study's findings by emphasizing the emotional connection and sense of pride fostered by TL. Expert 1 observed that transformational leaders who involve employees in decision-making processes and provide consistent recognition create a supportive work environment, thereby increasing engagement. This mirrors the study's conclusion that employees feel valued and cared for under TL, leading to higher WE. The personal consideration shown by transformational leaders was noted by Expert 2, who highlighted that this consideration enhances employees' emotional bond with the organisation, making them more engaged and committed to their work. Furthermore, the experts agreed that challenging employees intellectually and fostering personal growth keep employees engaged and invested in their work. Expert 3 noted that TL creates a culture of continuous learning, which leads to higher levels of engagement and improved performance outcomes.

The experts' insights emphasize that transformational leaders, by creating a shared vision, developing employees' capabilities, and providing consistent support,

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significantly improve both work engagement and SP in the "Ministry of Interior Affairs". Therefore, it can be concluded that the effect of TL on SP and WE in the context of UAE's police forces is positive and the increase in the implementation of TL can lead to better SP and WE among police forces in UAE. This has fulfilled the first part of the first research objective of this study.

5.3.2 Transactional Leadership, Work Engagement and Sustainable Performance

The second part of the first research objective is related to the effect of TSL on SP and WE. Two hypotheses (third and fourth hypotheses) were developed to confirm these relationships. The third hypothesis of this study suggested a positive link between TSL and SP. As shown in the finding, the suggestion is true where TSL affected positively the SP of the police forces in the "Ministry of Interior Affairs" in UAE indicating that the increase in the level of TSL can lead to a positive increase in SP.

This positive relationship can be explained based on the notion that in a hierarchical organisation such as the ministry of interior affair where there are ranks (officers in different ranks), structure, and clear path for career development, following orders can enhance EP which leads to rewards in term of promotions and financial rewards. Therefore, the use of TSL can lead to better SP. The descriptive statistics for TSL in the study show high mean scores across various aspects of leadership behavior, which justify the positive effect of TSL on SP. The high mean score for encouragement indicates that leaders consistently motivate their followers to perform well. This continuous encouragement helps maintain high performance standards, crucial for SP.

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By fostering a culture of motivation, leaders ensure that employees are consistently striving to meet and exceed performance targets, which supports long-term organisational sustainability. Leaders who base their judgments on actual performance provide clear and objective feedback. This practice ensures that employees are aware of their performance levels and understand the criteria for success. Such clarity and fairness in evaluation contribute to a stable and predictable work environment, which is essential for SP as it promotes transparency and accountability.

The high mean score for appreciation shows that leaders regularly acknowledge and reward employees' successes. This recognition not only boosts morale but also reinforces positive behaviours and performance. Consistent appreciation helps retain talent and encourages employees to maintain high performance levels, contributing to the organisation's long-term success and sustainability. Setting clear work standards ensures that employees know what is expected of them. This clarity helps align individual efforts with organisational goals, leading to more efficient and effective performance. By establishing and maintaining high work standards, leaders promote a culture of excellence that supports SP.

TSL theory suggested that TSL uses the reward-based performance. Therefore, employees have to increase their performance to be rewarded (Breuilly, 2011). This ultimately increases the SP. Previous studies also found similar findings. The research by Dai et al. (2022) underscores this by showing how TSL significantly impacts OC and SP. Their findings suggest that the transactional approach, which emphasizes clear objectives and rewards for achieving specific performance targets, fosters a dedicated workforce. This dedication is crucial for maintaining long-term organisational

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effectiveness and sustainability. Further evidence is provided by Kafetzopoulos and Gotzamani (2022), who found a significant association between TSL and business SP. Their study highlights TSL's potential to drive sustainable business practices through its focus on goal-setting, monitoring, and performance rewards. By holding employees accountable and providing tangible rewards for meeting sustainability goals, transactional leaders can effectively promote practices that ensure long-term organisational health. This approach aligns employee actions with the organisation's sustainability objectives, ensuring that all efforts contribute to enduring performance and stability.

Regarding TSL and SP, the experts agreed that the structured and performance-based nature of TSL is particularly effective in hierarchical and structured environments like the Ministry. Expert 1 highlighted that TSL creates a direct link between performance and rewards, motivating employees to meet specific sustainability targets, such as waste reduction or energy conservation. This alignment of employee actions with organisational goals is crucial for improving SP. Expert 2 added that the clarity and predictability provided by TSL ensure that employees understand the criteria for success, fostering a transparent and accountable work environment. This reduces ambiguity, making it easier for employees to focus on meeting sustainability objectives. Expert 3 emphasized that TSL's structured approach to performance monitoring and rewards drives employees to consistently work towards sustainability goals, as they are aware of the tangible rewards for their efforts. This ensures long-term commitment to sustainability initiatives within the Ministry.

The fourth hypothesis confirmed that the effect of TSL on, WE is positive. This implies that the increase in the level of TSL can lead to a positive increase in the WE of the "Ministry of Interior Affairs" in UAE. This positive link can be justified based on the high score mean of the items which indicates that leaders who promptly address work problems show their commitment to supporting their employees. This responsiveness helps employees feel valued and understood, which enhances their engagement. When leaders are actively involved in solving work-related issues, it creates a supportive environment that fosters higher levels of engagement and productivity.

The ability of leaders to correct mistakes constructively ensures that employees can learn and improve. This constructive feedback loop helps employees feel secure and supported in their roles, increasing their engagement. By focusing on continuous improvement, leaders help employees develop their skills and confidence, leading to higher engagement. Regular assessment and constructive criticism help employees understand their areas for improvement. This process not only aids in professional development but also shows that leaders are invested in their employees' growth. This investment fosters a sense of belonging and commitment, which are key components of WE. The high scores in encouragement, appreciation, and setting clear standards indicate a work environment where employees are motivated, recognized, and guided effectively. Such an environment enhances JS and commitment, which are critical for maintaining high levels of WE.

In agreement with the findings of this study, Udin et al. (2022) explored this relationship and found that TSL influences WE and, consequently, inventive work behavior. Their findings indicate that the contingent reward aspect of TSL, where

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leaders offer tangible incentives for achieving specific goals, significantly enhances employee engagement. When employees understand what is expected of them and receive recognition and rewards for their efforts, they are more likely to be engaged and motivated in their roles. This structured approach reduces ambiguity and provides clear guidance, which is crucial for maintaining high levels of WE. Employees under TSL know precisely what they need to do to succeed and are aware of the rewards associated with their performance. This clarity fosters a sense of security and predictability, enabling employees to focus on their tasks with confidence. The positive reinforcement associated with TSL, such as praise and rewards for good performance, further boosts engagement by making employees feel valued and appreciated.

Moreover, TSL's emphasis on consistent monitoring and feedback ensures that employees remain aligned with organisational goals and can continuously improve their performance. This ongoing feedback loop keeps employees engaged by providing them with regular updates on their progress and opportunities for growth. The supportive environment created by TSL not only enhances immediate WE but also encourages long-term commitment and JS, as employees feel that their efforts are recognized and rewarded.

For TSL and WE, the experts focused on how TSL fosters engagement through its emphasis on clear expectations, consistent feedback, and recognition. Expert 1 noted that TSL leaders who address work problems promptly and provide constructive feedback create a supportive environment where employees feel valued, leading to higher engagement. This responsiveness ensures that employees remain motivated and

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committed to their roles. Expert 2 emphasized the importance of regular feedback in enhancing engagement, pointing out that the ability of TSL leaders to provide continuous assessment and constructive criticism allows employees to improve their performance while feeling supported by their leaders. This structured feedback loop fosters a sense of security and confidence, which are key drivers of WE. Expert 3 added that the regular recognition and rewards associated with TSL further enhance engagement, as employees are motivated by the tangible rewards linked to their performance. The combination of clarity, feedback, and recognition ensures that employees remain focused and engaged in their tasks.

By finding the effect of TL and TSL on SP and WE, this study has fulfilled the first research objective and concluded that the effect of TL and TSL on SP and WE are positives and significant indicating that when the "Ministry of Interior Affairs" uses the TL and TSL, the level of SP and WE can increase.

5.3.3 Work Engagement and Sustainable Performance

The second research objective aimed to find the effect of WE on SP. In line with this objective, the fifth hypothesis proposed a positive impact of WE on SP. The result of hypothesis testing showed that WE affected positively SP indicating that the increase in the WE can result in a positive increase in SP. A possible explanation of the positive effect of WE on SP could be related to fact that the descriptive statistics of WE in this study demonstrate high levels of enthusiasm, pride, and immersion among employees, all of which are critical factors in driving SP. High enthusiasm at work suggests that employees are motivated and energetic. Enthusiastic employees are more likely to invest extra effort into their tasks, resulting in higher productivity and quality of work.

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This energy translates into a consistent and sustained level of performance, which is vital for achieving long-term organisational goals. Enthusiastic employees also tend to influence their peers positively, fostering a collaborative and dynamic work environment that supports SP.

The willingness to work for long periods reflects a strong commitment to the organisation. Such dedication ensures that employees are not just meeting immediate targets but are also contributing to the organisation's long-term objectives. This long-term dedication is essential for maintaining continuity and stability within the organisation, which are key components of SP. Pride in one's work indicates a deep connection to and satisfaction with one's role. Employees who take pride in their work are more likely to maintain high standards and strive for excellence. This sense of ownership and responsibility is crucial for driving continuous improvement and ensuring that performance levels remain high over time. When employees are proud of their contributions, they are more likely to engage in behaviours that support the organisation's sustainability goals.

Finding meaning and purpose in work leads to greater JS and motivation. When employees perceive their work as meaningful, they are more likely to be committed and put in the effort required to achieve the organisation's mission and vision. This alignment between personal and organisational goals enhances overall performance and supports sustainable practices. Challenging and inspiring work keeps employees engaged and motivated to overcome obstacles and innovate. Engaged employees who find their work challenging are more likely to develop creative solutions and drive continuous improvement, both of which are crucial for SP. This innovation and

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problem-solving capability help the organisation adapt to changes and maintain competitiveness.

Immersion in work, or being in a state of flow, indicates a high level of focus and engagement. Employees who are deeply involved in their tasks are likely to produce high-quality work and achieve better outcomes. This immersion ensures that employees are fully committed to their responsibilities, which supports consistent and reliable performance. High levels of immersion also contribute to a culture of excellence and continuous improvement, which are essential for SP.

Previous studies are in line with the findings of this study. Pellicano et al. (2014) performed a study in Italy to investigate stakeholder involvement and its impact on sustainability development (SD). The results demonstrated a significant positive impact of stakeholder involvement on promoting sustainability initiatives within organisations. This finding emphasizes the importance of actively involving several stakeholders to effectively promote sustainability initiatives. The current study's focus on WE parallels Pellicano et al.'s emphasis on engagement, suggesting that active participation at different levels (stakeholders or employees) drives sustainable outcomes.

In their study conducted in Malaysia, Ojo and Fauzi (2020) investigated the effects of involvement in green IT practices on environmental IT performance. They found a noteworthy correlation between the adoption of green IT practices and the improvement of environmental IT performance. This implies that actively participating in environmentally sensitive behaviours can result in favourable

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performance outcomes in specific areas. The link between active involvement in environmentally sensitive behaviours and improved performance aligns with the current study's finding that engaged employees (in this case, police personnel) positively influence SP. Both studies underscore the role of proactive engagement in achieving SP metrics.

Moreover, the research by Udin et al. (2022) explored the correlation between WE and creative work behavior. The results highlighted the beneficial impact of WE on creative work behavior, suggesting that individuals with high levels of engagement in their jobs are more likely to display innovative behaviours. This finding emphasizes the concept that actively involved and committed workers can make a substantial contribution to an organisation's ability to innovate. Udin et al.'s findings that engaged employees display more innovative behaviours align with the current study's results, indicating that WE can drive various positive organisational outcomes, including sustainability and innovation. Both studies suggest that engaged employees contribute significantly to their organisations' success.

The collective insights of the experts underscore the crucial role of WE in driving SP within organisations like the "Ministry of Interior Affairs". The experts consistently highlighted that highly engaged employees—those who are enthusiastic, proud, and deeply involved in their work—are more likely to invest extra effort into their tasks, which directly contributes to sustained OP and long-term success. The experts collectively pointed out that enthusiasm fosters a positive, dynamic work environment where employees are motivated to excel and influence their peers to perform at high standards, which supports organisational sustainability. Moreover, pride and

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ownership in one's work create a deeper connection between employees and the organisation's goals, making employees more likely to engage in behaviours that support SP, such as maintaining high performance standards and continuously seeking improvement. This sense of ownership drives employees to not only meet short-term goals but to contribute meaningfully to the organisation's long-term objectives.

The experts also agreed that immersion, or being fully focused and engaged in work, ensures that employees produce high-quality outcomes, which is essential for maintaining consistent and reliable performance over time. Employees who find meaning and purpose in their work are more likely to align their personal goals with the organisation's sustainability goals, which enhances their commitment and effort. This alignment between personal and organisational objectives is crucial for achieving long-term sustainability. Furthermore, challenging and inspiring work stimulates employees to innovate and develop creative solutions to organisational problems, which is vital for maintaining competitiveness and sustainability in a changing environment. Therefore, it can be concluded that the effect of WE on SP is positive. By finding this effect, the study has fulfilled the second research objective.

5.3.4   Mediating Role of Work Engagement

The third research objective aimed to find the mediating role of WE between TL and TSL, and SP. Therefore, two hypotheses were proposed. One is related to the mediating effect of WE between TL and SP and the other is related to the mediating effect of WE between TSL and SP. The findings showed that WE fully mediated the effect of TL on SP and partially mediated the effect of TSL on SP.

The full mediation of WE between TL and SP indicated that WE can substitute TL and contribute together with TL to explain SP. In other word, WE can explain all the relationship between TL and SP. from the descriptive information of WE and TL, TL leadership style focuses on inspiring and motivating employees, fostering a sense of purpose, and encouraging employees to exceed their own interests for the sake of the organisation. Transformational leaders likely enhance employees' WE by making their work feel more meaningful, challenging, and inspiring, which is reflected in the high mean scores for these engagement items. When employees are highly engaged (as evidenced by the statistics), they are more enthusiastic, proud, and immersed in their work, leading to higher SP.

In terms of TSL, the mediation is partial suggesting that part of the relationship between TSL and SP can be explained by WE. This style is more focused on the exchange process between the leader and followers, emphasizing reward for performance and compliance with established procedures. This indicates that TSL affects SP both directly and indirectly through WE. While TSL may directly influence SP by setting clear expectations and rewarding good performance, it also indirectly affects SP by influencing WE. The structured and reward-based approach of TSL might contribute to some aspects of engagement (such as feeling challenged or finding purpose in meeting set goals), but not as comprehensively as TL does. This is reflected in the overall high but slightly variable mean scores for engagement items. Beyond engagement, TSL's direct rewards and recognition mechanisms also contribute to SP, which explains the partial mediation.

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Prior literature demonstrate similar findings. Prominent examples of these mediating effects have been documented in research conducted by Ojo and Fauzi (2020), Udin et al. (2022), and Hu et al. (2022). The study undertaken by Ojo and Fauzi (2020) focused on the examination of green IT practises and their impact on the environmental performance of IT systems. The results of their study demonstrated that the adoption of green IT practises had a role in mediating the connection between individuals' attitudes towards green IT and their performance in environmental IT. This suggests that the extent of involvement in environmentally aware IT practises acted as a mediator in converting favourable sentiments towards green initiatives into measurable enhancements in environmental IT performance.

The study conducted by Udin et al. (2022) investigated the correlation between TSL and CWB, with a particular emphasis on the mediating influence of WE. The researchers' investigation revealed that the variable of "WE" had a mediating role in the association between TSL and CWB. This implies that the level of employee involvement was a significant factor in supporting the favourable influence of TSL on promoting creative behaviours among workers. In addition, Hu et al. (2022) conducted a study to examine the mediating effect of involvement in the green creative process within the framework of green innovation and green creative performance. The study results demonstrated that the participation in a green creative process had a mediating role in promoting the transformation of green innovation efforts into improved green creative performance.

The experts agreed that WE plays a crucial mediating role between TL and SP. They collectively recognized that WE mediates this relationship, as TL is highly effective

in creating an inspiring and motivating work environment. This leadership style fosters a deep sense of purpose and commitment among employees, which leads to higher engagement. The experts emphasized that TL inherently increases WE, making employees feel more involved, valued, and connected to the organisation's goals. This full engagement, driven by TL, ensures that employees are enthusiastic and invested in their tasks, which significantly contributes to improved SP. The experts agreed that the mediation of WE explains how TL influences SP, as high engagement is central to achieving long-term organisational sustainability.

The experts also agreed that WE mediates the relationship between TSL and SP. While TSL does increase engagement to some extent, it operates differently from TL by focusing on clear expectations, rewards, and performance monitoring. The experts pointed out that TSL directly impacts SP through structured incentives and goal-setting, which aligns employee efforts with the organisation's sustainability objectives. They noted that while WE contributes to this process by keeping employees motivated and engaged in meeting performance goals, the transactional approach also independently enhances SP through its reward-based structure. Therefore, the experts agreed that TSL affects SP both directly and indirectly through WE, but engagement does not fully account for the positive relationship, as TSL's direct performance-driven mechanisms also play a significant role.

Overall, this study found that WE fully mediated the effect of TL on SP and partially mediated the effect of TSL on SP. By testing the WE as a mediating variable, this study has fulfilled the third research objective.

5.3.5   Moderating Role of Organisational Commitment

The fourth research objective was related to the moderating role of OC between TL and TSL, and SP. The study proposed that OC moderates the effect of TL on SP and the effect of TSL on SP. The findings indicated that OC moderated both the effect of TL and TSL on SP. This findings indicates that the increase in the level of OC as a moderator can increase the positive relationship between TL and TSL with SP.

A possible explanation of this moderating effect is TL is characterized by leaders who inspire, motivate, and foster a sense of purpose among employees. Within the police forces, high levels of OC significantly enhance the positive effects of TL on SP. Police officers who feel a strong sense of belonging and emotional attachment to their organisation are more likely to be positively influenced by transformational leaders. These committed officers internalize the leader's vision and are more motivated to contribute to SP, such as improving public safety, community trust, and operational efficiency.

In terms of TSL, the positive moderating effect of OC between TSL and SP can be due to the fact that TSL focuses on clear structures, rewards, and penalties to manage performance. In the context of the UAE police forces, OC plays a crucial role in determining how well TSL strategies translate into SP. Police officers with high OC are more likely to respond positively to TSL. Their commitment leads to better adherence to rules, protocols, and higher motivation to achieve set targets, which are essential for maintaining law and order, and achieving strategic goals. High OC thus strengthens the effect of TSL on SP.

The existing body of literature primarily focuses on OC as a mediator between leadership styles and performance outcomes. For instance, Dai et al. (2022) explored how OC mediates the relationship between leadership styles and SP. Their findings underscore OC's critical role in translating leadership behaviours into performance outcomes, suggesting that committed employees are more likely to engage in behaviours that enhance OP. While studies directly examining OC as a moderator between leadership styles and SP are limited, research in other contexts supports the concept of OC as a dynamic variable influencing various organisational relationships. One significant study by Putra et al. (2020) provided empirical evidence of OC's moderating effect on the relationship between JS and EP. Their research demonstrated that OC significantly influenced how JS translated into EP, highlighting OC's crucial role in determining performance outcomes.

In a separate setting, Mustapa and Mahmood (2016) investigated the moderating influence of OC on the association between person-job fit and the desire to resign. Their findings indicated that OC moderated this relationship, suggesting that higher OC reduced the likelihood of employees wanting to leave, even if their job fit was not ideal. This research underscores OC's significant impact on employee behavior and decision-making, reinforcing its potential moderating role in other organisational contexts, such as leadership and performance.

The insights provided by the experts further clarify and reinforce the findings related to the moderating role of OC between TL, TSL, and SP, as identified in the fourth research objective. The experts agreed that OC significantly strengthens the positive effect of TL on SP. Expert 1 emphasized that within hierarchical and mission-driven

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organisations like the police forces, OC enhances the impact of transformational leaders who inspire and motivate employees. Officers with high levels of OC internalize the leader's vision more effectively and feel a deep emotional attachment to the organisation's goals. This emotional bond makes them more likely to go beyond their prescribed duties, actively contributing to sustainability-related outcomes, such as improving public safety, fostering community trust, and enhancing operational efficiency. Expert 2 added that committed employees are more willing to embrace the values and vision promoted by transformational leaders, which enhances the overall positive impact of leadership on SP. This attachment translates into better long-term outcomes because officers with high OC are motivated not only by their immediate tasks but by the larger goals of the organisation.

Regarding TSL, the experts agreed that OC enhances the effectiveness of transactional leadership by reinforcing adherence to rules, protocols, and structured performance systems. Expert 1 explained that police officers with strong OC are more likely to respond positively to TSL's clear reward and penalty systems. These officers are highly motivated to meet performance targets, which are essential for achieving the organisational goals of law enforcement and public safety. Expert 2 further noted that committed officers who are engaged in their work are more receptive to the structured performance feedback typical of TSL. OC amplifies this relationship by ensuring that officers remain dedicated to achieving high standards and aligning their actions with the organisation's strategic goals. This is especially important in the police forces, where compliance with rules and the achievement of set targets are crucial for maintaining order and security.

By findings the moderating role of OC between TL and TSL, and SP, this study has fulfilled the fourth research objective and concluded that OC moderated positively the effect of TL and TSL on SP of police forces in the "Ministry of Interior Affairs" in UAE.

5.4   Implications

The theoretical and practical implications of this study are discussed in the next sections.

5.4.1   Theoretical Implication

This study contributes significantly to the body of knowledge and literature in several aspects. It enhances understanding of TL, TSL, WE, and SP in developing countries. Most previous studies were conducted in developed countries such as the US, Italy, Greece, and emerging economies like Taiwan, China, South Korea, Malaysia, and developing countries such as Pakistan. By examining SP in the UAE, a country with limited prior research, this study addresses the geographical gap. It offers a basis for comparative studies between developed, emerging, and developing countries, enhancing the robustness of global theories in leadership and SP.

Previous studies predominantly focused on manufacturing companies and SMEs in the private sector. This study fills the industry gap by examining SP among police forces in the public sector within the "Ministry of Interior Affairs" in the UAE. It provides evidence that can inform public sector management practices and policies, especially in police forces, and enhances understanding of how leadership styles influence

performance in public sector organisations. The study also contributed to the literature by examining SP on the organisational level using primary data. Most of prior literature examined the sustainable development at the macroeconomic level and using secondary data.

Limited studies have examined the effects of TL and TSL on WE and SP. This study investigates these relationships, focusing on the mediating role of WE and the moderating role of OC. TL and TSL is a trendy leadership styles. However, their implementation in a public sector context is still limited with varying results. This study confirmed that the TL and TSL can be used in the context of public sector and they can have both positive significant effect on the SP as well as WE of police forces in public sector.

The study reinforces the relevance of TL and TSL theories in enhancing WE and SP. It adds depth to understanding how WE and OC influence the relationship between leadership styles and SP, highlighting the complex interplay between leadership styles, engagement, commitment, and performance, suggesting areas for further research. The study contributed to the literature by examining the mediating role of WE. Few studies have done a mediation analysis regarding the role of WE. In addition, the study contributed to the literature by examining OC. The moderating role of OC was examined in limited studies with scare studies in the relationship between leadership styles and SP.

Previous literature utilized theories like dynamic capability theory, resource-based view, and stakeholder theory. Few studies deployed SET or TL and TSL theory. This

study uses SET and TL and TSL theories to explain relationships among variables. It validates and extends SET and TL/TSL theories in the context of the UAE police force. The integration of multiple theories contributed to the understanding of SP and helped in explaining large portion of the variation in SP and WE in the context of public sector in developing countries.

Prior studies often used interviews, mixed methods, or had less than 200 respondents. This study employs a sample size of over 200, adhering to Kline's (2015) recommendation for SEM. The study enhances the reliability and validity of findings through a robust sample size and SEM, providing strong empirical evidence to support theoretical propositions. It sets a benchmark for methodological rigor in future research on leadership and performance. This study contributes to the theoretical understanding by addressing significant gaps related to geographical context, industry focus, variable relationships, theoretical frameworks, and methodological approaches. It offers an understanding of how TL and TSL leadership styles impact SP in a unique setting, thereby enriching the global discourse on leadership and performance.

5.4.2 Practical Implications

The practical implications of this study are grounded in its findings, which demonstrated the positive impact of TL and TSL on SP and WE. Based on these results, along with the insights and recommendations of the experts, several actionable strategies can be suggested to enhance leadership effectiveness, engagement, and OP within the "Ministry of Interior Affairs" in the UAE.

First, the study's findings emphasize the necessity of a comprehensive leadership development program. Both TL and TSL positively affect SP, suggesting that leadership training should incorporate the strengths of both styles. For TL, the training should focus on key areas such as "inspirational motivation, intellectual stimulation, and individualized consideration". This will ensure that leaders are equipped to inspire and motivate employees, fostering innovation and adaptability. For TSL, training should emphasize contingent reward and active management by exception, enabling leaders to set clear expectations and maintain accountability. The experts also recommended establishing mentorship programs, where experienced leaders can coach emerging leaders, allowing for the practical application of leadership skills. Additionally, continuous professional development (CPD) programs should be introduced to ensure leaders remain updated on the latest theories and practices, through participation in workshops, seminars, and conferences, as suggested by the experts.
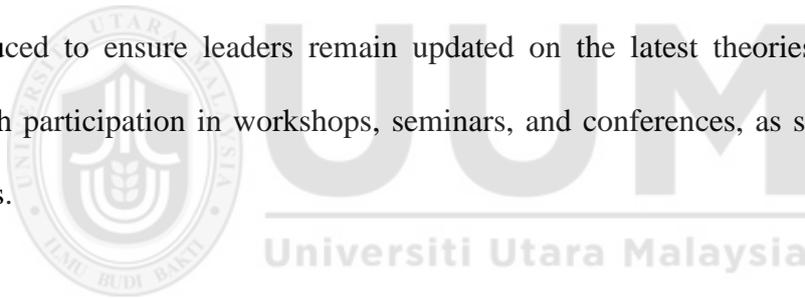
The study also highlighted the role of WE in mediating the effects of TL and TSL on SP. To enhance WE, leaders should be trained to articulate a compelling vision that aligns with the values and goals of the organisation, as this helps to inspire and motivate employees. According to the experts, fostering a culture of innovation is crucial. Leaders should encourage employees, particularly officers, to propose new ideas and solutions, thereby creating an environment where creativity and experimentation are valued. Individualized support is also key, as it enables leaders to understand the unique strengths and development needs of their team members. This approach can be reinforced through personalized development plans that are tailored to each officer's strengths and areas for improvement, fostering deeper engagement.

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Additionally, TSL's structured approach should not be overlooked. A balanced leadership strategy requires that clear, achievable goals be set for all teams, ensuring these goals are "Specific, Measurable, Attainable, Relevant, and Time-bound (SMART)". Experts emphasized the importance of establishing regular feedback mechanisms to provide officers with constructive feedback on their performance. This ensures that performance standards remain high and areas for improvement are promptly addressed. Maintaining discipline through consistent application of rules and regulations is another important element of TSL. Leaders should make sure that officers understand the consequences of their actions and the significance of adhering to protocols, which reinforces accountability and organisational stability.

To strengthen WE, the experts recommended creating robust recognition and reward systems that acknowledge officers' hard work and dedication. This can include awards, public recognition, and bonuses, which can significantly boost engagement. Career pathways that offer clear opportunities for promotion and professional growth are essential for maintaining high levels of engagement. The experts also suggested initiatives that promote a healthy work-life balance, such as flexible working hours, mental health support, and wellness programs, as these factors are critical for sustaining high engagement over the long term.

The moderating role of OC was found to enhance the positive effects of both TL and TSL on SP. Based on this, the study and expert insights suggest creating an inclusive work environment where officers feel valued and respected. Diversity and inclusion programs, team-building activities, and open communication channels can help foster a sense of belonging and commitment to the organisation. Furthermore, transparent

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communication between leadership and employees, where organisational goals, challenges, and achievements are regularly shared, helps build trust and strengthens the emotional connection between officers and the organisation. Aligning individual goals with organisational objectives enables officers to see the relevance of their work, further reinforcing their commitment to the mission of the Ministry.

The experts also emphasized the need for situational leadership training that enables leaders to flexibly adapt their style based on the team's needs and the situation. Leaders should be able to switch between TL and TSL as appropriate, ensuring that they can effectively address both the need for inspiration and the need for structured performance management. Situational leadership training programs should therefore be implemented to develop leaders' ability to assess the needs of their teams and adjust their leadership style accordingly.

Effective performance management systems are another critical area highlighted by the findings. The experts recommended regular performance appraisals based on transparent and clear criteria, along with detailed feedback and development plans that help officers understand their strengths and areas for growth. Establishing clear performance metrics aligned with organisational goals is essential for measuring progress and making informed decisions. These metrics should be used consistently to monitor performance, identify areas needing improvement, and celebrate achievements.

Finally, the experts stressed the importance of continuous monitoring and evaluation of leadership practices, engagement levels, and performance outcomes. Regularly

collecting data through surveys, performance reviews, and feedback sessions allows leaders to identify trends and address potential challenges. Analysing this data provides insights into the effectiveness of leadership development programs and engagement initiatives, and it ensures that necessary adjustments are made to sustain high performance. Sharing these insights with stakeholders promotes transparency and accountability, ensuring that leadership and performance management efforts remain aligned with organisational goals.

In conclusion, by implementing these practical measures based on the study's findings and expert recommendations, the "Ministry of Interior Affairs" in the UAE can effectively leverage both TL and TSL styles to enhance WE and achieve SP. These initiatives will lead to a more motivated, high-performing, and sustainable organisation.

5.5   Limitations

This study has several limitations which can help in the applicability of the results and the direction for future work. The study was conducted within the "Ministry of Interior Affairs" in the UAE, focusing on the police forces. The findings cannot be generalizable to other regions or countries with different cultural, economic, and social contexts. As a result, the implications might not be applicable to police forces or organisations in other geographic locations with different operational environments and challenges. Therefore, the generalisability of the findings is limited to police forces in UAE due to the use of random sampling which allows for generalising the findings on the population.

This study is specific to the public sector, particularly the police force, which has unique organisational structures and dynamics compared to other sectors such as private businesses or non-profit organisations. Consequently, the conclusions drawn might not be relevant to other sectors, limiting the broader applicability of the findings to diverse organisational settings. Although the study collected a relatively large sample size that sufficient for the purpose of this study, the diversity within the sample was limited to certain ranks of middle management level officers within the police force. The findings might not fully capture the experiences and perspectives of all subgroups within the organisation, limiting the comprehensiveness of the conclusions.

The study focuses on TL and TSL leadership, WE, OC, and SP, potentially overlooking other relevant factors such as organisational culture, external environmental influences, and individual differences as well as organisational justice. The exclusion of these factors may lead to an incomplete understanding of the dynamics affecting SP in the police force. Therefore, the findings are limited to these variables that are included in this study. Therefore, the findings of this study are limited to UAE, public sector and in particular to police forces in the middle management level. The study also is limited to the variables were included in this study.

5.6   Directions of Future Work

To expand the findings of this study, there are several directions for future work. Future research should extend the scope to include police forces and public sector organisations in various regions and countries. This approach will help ascertain whether the findings are applicable across different cultural, economic, and social contexts, thereby enhancing the generalizability of the results. Comparative studies

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across multiple countries and regions, as well as an exploration of how cultural differences impact the effectiveness of TL and TSL styles, are recommended.

There is a need to compare the effects of TL and TSL leadership in different sectors, including private, non-profit, and other public sector organisations. Understanding how leadership styles impact SP across various industries can provide a more comprehensive view. Future work should investigate leadership and SP in diverse sectors such as healthcare, education, and technology, and identify sector-specific factors that influence the relationship between leadership and SP.

Utilizing mixed-methods research to gain a deeper understanding of the mechanisms behind the observed relationships is crucial. Combining quantitative and qualitative data can offer richer insights and help validate findings. Future work should incorporate interviews, focus groups, and case studies alongside surveys, using qualitative data to explore officers' perceptions and experiences in more detail.

Future research should incorporate additional variables such as organisational culture, external environmental influences, individual differences, and technological advancements as well as organisational justice. This comprehensive approach will provide a more thorough understanding of the factors influencing SP. Investigating the impact of organisational culture on leadership effectiveness, exploring how external factors such as political and economic conditions affect performance, and examining individual differences such as personality traits and their influence on engagement and performance are recommended. In addition, future studies can examine the moderating role of organisational justice in the context of public sector.

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Developing and validating measurement tools for assessing leadership styles, WE, OC, and SP in different contexts is necessary. Ensuring the validity and reliability of these tools across various settings is crucial for accurate data collection and analysis. Future work should focus on adapting existing measurement instruments to different cultural and organisational contexts and conducting validation studies to test the reliability and validity of these tools.

Designing and evaluating interventions aimed at enhancing TL and TSL leadership skills among police officers and public sector leaders is important. Testing the effectiveness of specific interventions can provide practical recommendations for leadership development. Future research should implement training programs and workshops focused on leadership development and assess the impact of these interventions on WE and SP through experimental or quasi-experimental designs.

Exploring how technological advancements, such as digital tools and platforms, influence leadership practices and SP is another promising direction. Understanding the role of technology can help leaders leverage digital solutions to enhance engagement and performance. Future work should study the adoption of digital leadership tools and their impact on organisational outcomes, and investigate how technology can support remote and hybrid work environments in law enforcement and public sector organisations.

Lastly, examining the psychological and behavioral factors that mediate or moderate the relationship between leadership styles and SP is essential. Insights into these factors can help tailor leadership development programs to address specific

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psychological needs and behaviours. Future research should investigate the role of psychological safety, motivation, and JS in the leadership-performance relationship and study behavioral interventions that can enhance WE and OC.

5.7   Conclusion

This research was conducted to examine the effect of TL and TSL on SP and WE. The research also examined the mediating role of WE and the moderating role OC. The study examined these relationships and provided significant insights into the interplay between leadership styles, WE, OC, and SP within the police forces of the "Ministry of Interior Affairs" in the UAE. A total of 321 respondents participated in this study. The data was collected using random sampling technique via a questionnaire. The findings were derived using Smart PLS 4.

The findings indicated that both TL and TSL leadership styles positively impact SP and WE. In addition, the findings also showed that WE affected positively SP of the police forces in the "Ministry of Interior Affairs" in UAE. Further, the findings showed that WE fully mediated the effect of TL on SP and partially mediates the effect of TSL on SP. Furthermore, OC is found to moderate the relationship between leadership styles and SP, highlighting its critical role in amplifying the positive effects of effective leadership. The interview with the experts validated these findings and confirmed the role of TL, TSL, WE, OC, and SP.

The study fills several gaps in the existing literature by focusing on a public sector organisation in a developing country context, contrasting the prevalent research centred on private sector entities in developed economies. This context-specific

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investigation provides valuable implications for leadership practices within the UAE police forces. Practical recommendations derived from the findings emphasize the need for balanced leadership development programs that incorporate both TL and TSL elements. Enhancing WE through recognition, career advancement opportunities, and promoting a healthy work-life balance is crucial. Additionally, fostering a strong sense of OC through inclusive and transparent communication, aligning individual goals with organisational objectives, and creating a supportive work environment is essential for achieving SP.

The study acknowledges its limitations, including its cross-sectional design, reliance on self-reported data, and the specific focus on the UAE police forces. Future research should aim to extend these findings by exploring different geographical and industry contexts, employing longitudinal designs to establish causal relationships, and incorporating mixed-method approaches to gain deeper insights into the underlying mechanisms.

This research contributes to a more understanding of how TL and TSL, mediated by WE and moderated by OC, can drive SP in the public sector. The practical implications and directions for future research outlined in this research provided a robust foundation for enhancing leadership effectiveness and organisational outcomes within the police forces of the "Ministry of Interior Affairs" in the UAE.

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Questionnaire of Sustainable Performance of Ministry of Interior Affair
استبيان الأداء المستدام لوزارة الداخلية

Dear Respondents

This research aims to collect data regarding the factors that affect the sustainable performance of Ministry of Interior Affair, UAE. The study collects the data from officers in the police forces of UAE. Since you belong to this category, we would like to seek your cooperation to fill in this questionnaire and answers its questions based on your knowledge and experience. We understand the sensitivity of the data that will be collected. Therefore, we would like to ensure to you that the questionnaire collects no personal information and all the information provided by you will be used for statistical purposes. The information that you provide will be confidential and no one except the researcher and his supervisor will have access to the data. The time estimated to answer the questionnaire is 15-20 minutes. The questionnaire consists of two parts as follows:

Part A: Background information
Part B: Variables of the Study

For any question regarding the questionnaire, please do not hesitate to contact me at:

Name: Hadef Sultan Alghfeli
WhatsApp:
Email:

اعزائي المستجيبين

يهدف هذا البحث إلى جمع البيانات المتعلقة بالعوامل التي تؤثر على الأداء المستدام لوزارة الداخلية بدولة الإمارات العربية المتحدة، وتقوم الدراسة بجمع البيانات من ضباط في قوات الشرطة في دولة الإمارات العربية المتحدة، وبما أنك تنتمي إلى هذه الفئة، فإننا نرغب في تعاونكم لتعبئة هذا الاستبيان والإجابة على أسئلته بناءً على معرفتكم وخبرتكم. نحن نتفهم حساسية البيانات التي سيتم جمعها، ولذلك، نود أن نؤكد لكم أن الاستبيان لا يجمع أي معلومات شخصية وسيتم استخدام جميع المعلومات التي تقومونها لأغراض إحصائية، والمعلومات التي تقدمونها ستكون سرية ولن يتمكن أحد سوى الباحث ومشرفته من الوصول إلى البيانات، الوقت المقدر للإجابة على الاستبيان هو 15-20 دقيقة. يتكون الاستبيان من جزأين على النحو التالي:

الجزء أ: معلومات أساسية
الجزء ب: متغيرات الدراسة

لأي سؤال بخصوص الاستبيان، لا تترددوا في الاتصال بي باستخدام وسائل التواصل التالية:

الاسم: هادف سلطان الغفلي
واتساب:
بريد إلكتروني:

Part A: Background of the Respondents

Please answer the following questions by ticking the appropriate answer:	الرجاء الإجابة على الأسئلة التالية بوضع علامة أمام الإجابة المناسبة:
1. What is your gender?	1. ما هو جنسك؟
o Male	o ذكر
o Female	o أنثى
2. What is your age?	2. ما هو عمرك؟
o Less than 25 years	o أقل من 25 سنة
o 25-35 years	o 25-35 سنة
o 36-45 years	o 36-45 سنة
o 46-55 years	o 46-55 سنة
o 56-65 years	o 56-65 سنة
o Above 65 years	o أكبر من 65 سنة
3. How long have you been working in Ministry of Interior Affairs?	3. منذ متى وأنت تعمل في وزارة الداخلية؟
o Less than 5 year	o أقل من 5 سنوات
o 5-10 years	o 5-10 سنوات
o 11-15 years	o 11-15 سنة
o 16-20 years	o 16-20 سنة
o 21-25 years	o 21-25 سنة
o 26-30 years	o 26-30 سنة
o More than 30 years	o أكثر من 30 عامًا
4. What is your rank?	4. ما هي رتبتك؟
o Officer	o ضابط
o Supervisor	o مشرف
o Middle manager	o مدير في الإدارة الوسطى
o Others (please specify)	o أخرى (يرجى التحديد)

Part B: Variables of the Study

الجزء ب: متغيرات الدراسة

Sustainable performance الأداء المستدام
The sustainable performance is measured using three sub-dimensions which are the economic, social, and environmental performance. Please evaluate the following statement where:

يتم قياس الأداء المستدام باستخدام ثلاثة أبعاد فرعية هي الأداء الاقتصادي والاجتماعي والبيئي، أرجو تقييم العبارة التالية حيث:

Strongly disagree.	Disagree	Neutral حيادي	Agree موافق	Strongly agree.

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غير موافق بشدة	غير موافق			موافق بشدة
1	2	3	4	5

A. Sustainable Performance
الأداء المستدام

Economic Performance Our organisation: الأداء الاقتصادي منظمتنا	1	2	3	4	5
1. has improved its market share قامت بتحسين حصتها في السوق					
2. has improved its image حسنت صورته					
3. has improved its position in the marketplace تحسنت مكانتها في السوق					
4. has increased its productivity زادت ربحيتها					
5. has decreased costs خفضت التكاليف					
6. has improving its performance. تحسين في أداء التوصيل					
Environmental Performance Our organisation الأداء البيئي منظمتنا					
10. has improved compliance with environmental standards تحسين الامتثال للمعايير البيئية					
11. has reduced CO2 emissions خفضت انبعاثات ثاني أكسيد الكربون					
12. has reduced energy consumption قلل من استهلاك الطاقة					
13. has reduced material usage قلل من استخدام المواد					
14. has reduced the consumption of hazardous materials قلل من استهلاك المواد الخطرة					
15. has reduced solid wastes يقلل من النفايات الصلبة					
16. has reduced environmental accidents قلل من الحوادث البيئية					
Social performance Our organisation الأداء الاجتماعي منظمتنا					
17. has improved or enhanced the workforce welfare أدى إلى تحسين أو تعزيز رفاهية القوى العاملة					
18. has improved the workforce health and safety تحسين صحة وسلامة القوى العاملة					

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Statement	1	2	3	4	5
19. has increased workforce training and development قامت بزيادة تدريب وتطوير القوى العاملة					
20. has workforce engagement لديه مشاركة في القوى العاملة					
21. has reduced environmental impacts and risks to the general public قلل من التأثيرات والمخاطر البيئية على عامة الناس					
22. has improved occupational health and safety of employees أدى إلى تحسين الصحة والسلامة المهنية للموظفين					
23. has improved the awareness and protection of the community تم تحسين الوعي والحماية للمجتمع					
مطالبات وحقوق المجتمع المخدوم 24. Has served claims and rights of the community.					
25. decreased rates of work-related injury frequency انخفاض معدلات تكرار الإصابة بالعمل					
26. decreased rates of work-related deaths انخفاض معدلات الوفيات المرتبطة بالعمل					

B. Transactional leadership القيادة التبادلية

Statement	1	2	3	4	5
1. My leader always encourages followers' performance. يقوم قائدي دائمًا بتشجيع أداء أتباعه.					
2. My leader always judges the work of followers based on their work يحكم قائدي دائمًا على عمل التابعين بناءً على عملهم					
3. My leader always gives appreciation for the success of the follower's work يقدم قائدي دائمًا التقدير لنجاح عمل التابع					
4. My leader always determines the work standards of followers يحدد قائدي دائمًا معايير عمل الأتباع					
5. My leader always assesses followers' work mistakes. يقوم قائدي دائمًا بتقييم أخطاء عمل التابعين.					
6. My leader always reacts to followers' work problems. يتفاعل قائدي دائمًا مع مشاكل عمل التابعين.					
7. My leader always corrects followers' work mistakes يقوم قائدي دائمًا بتصحيح أخطاء عمل التابعين					

C. Transformational leadership القيادة التحويلية

Statement العبارات Our leader/direct supervisor/ manager قائدنا/ مشرفنا المباشر/ مديرنا	1	2	3	4	5
1. Has a clear understanding of where we are going لديه فهم واضح إلى أين نحن ذاهبون					

Statement					
2. Has a clear sense of where he/she wants our unit to be in 5 years لديه إحساس واضح بالمكان الذي يريد أن تصل إليه وحدتنا خلال 5 سنوات					
3. Has the idea where the organisation is going لديه فكرة إلى أين تتجه المنظمة					
4. Says things that make employees proud to be a part of this organisation يقول أشياء تجعل الموظفين فخورين بكونهم جزءًا من هذه المنظمة					
5. Says positive things about the work unit يقول أشياء إيجابية عن وحدة العمل					
6. Encourages people to see changing environments as situations full of opportunities يشجع الناس على رؤية البيئات المتغيرة كمواقف مليئة بالفرص					
7. Challenges me to think about old problems in new ways يتحداني للتفكير في المشكلات القديمة بطرق جديدة					
8. Has ideas that have forced me to rethink some things that I have never questioned before لديه أفكار أجبرتني على إعادة التفكير في بعض الأمور التي لم أتساءل عنها من قبل					
9. Has challenged me to rethink some of my basic assumptions about my work لقد تحداني لإعادة التفكير في بعض افتراضاتي الأساسية حول عملي					
10. Considers my personal feelings before acting أراعي مشاعري الشخصية قبل التصرف					
11. Behaves in a manner which is thoughtful of my personal needs يتصرف بطريقة تراعي احتياجاتي الشخصية					
12. Sees that the interests of employees are given due consideration يرى أن مصالح الموظفين تحظى بالاعتبار الواجب					
13. Commends me when I do a better than average job يمدحني عندما أقوم بعمل أفضل من المتوسط					
14. Acknowledges improvement in my quality of work يقر بالتحسن في جودة عملي					
15. Personally compliments me when I do outstanding work يهنئني شخصياً عندما أقوم بعمل متميز					

D. Organisational commitment الولاء التنظيمي

العبارات Statement	1	2	3	4	5

1. I would be very happy to spend the rest of my career with this organisation سأكون سعيدًا جدًا بقضاء بقية مسيرتي المهنية مع هذه المنظمة					
2. I really feel as if this organisation's problem are my own. أشعر حقًا كما لو أن مشكلة هذه المنظمة هي مشكلتي.					
3. I do not feel a strong sense of belonging to my organisation (R). لا أشعر بإحساس قوي بالانتماء إلى مؤسستي					
4. I do not feel emotionally attached to this organisation (R). لا أشعر بارتباط عاطفي بهذه المنظمة (ر					
5. I do not feel like part of the family at my organisation (R). لا أشعر بأنني جزء من عائلة مؤسستي					
6. This organisation has a great deal of personal meaning for me. هذه المنظمة لها قدر كبير من المعنى الشخصي بالنسبة لي.					
7. Right now, staying with my organisation is a matter of necessity as much as a desire. في الوقت الحالي، يعد البقاء مع منظمتي أمرًا ضروريًا بقدر ما هو رغبة.					
8. It would be very hard for me to leave my organisation right now, even if I wanted to. سيكون من الصعب جدًا بالنسبة لي أن أترك مؤسستي الآن، حتى لو أردت ذلك.					
9. Too much of my life would be disrupted if I decided I wanted to leave my organisation now. سوف يتعطل الكثير من حياتي إذا قررت أن أترك مؤسستي الآن.					
10. I feel that I have too few options to consider leaving this organisations. أشعر أن لدي خيارات قليلة جدًا للتفكير في ترك هذه المنظمات.					
11. If I had not already put so much of myself into this organisation, I might consider working elsewhere. لو لم أضع الكثير من نفسي في هذه المنظمة، لربما أفكر في العمل في مكان آخر.					
12. One of the few negative consequence of leaving this organisation would be the scarcity of available alternative. إحدى النتائج السلبية القليلة لترك هذه المنظمة هي ندرة البديل المتاح.					
13. I do not feel any obligation to remain with my current employer (R) لا أشعر بأي التزام بالبقاء مع صاحب العمل الحالي					
14. Even if it were to my advantage, I do not feel it would be right to leave my organisation now. حتى لو كان ذلك لصالحي، لا أشعر أنه سيكون من الصواب أن أترك مؤسستي الآن.					
15. This organisations deserve my loyalty. هذه المنظمات تستحق ولائي.					

	1	2	3	4	5
16. I would not leave my organisation right now because I have a sense of obligation to the people in it. لن أترك مؤسستي الآن لأن لدي شعور بالالتزام تجاه الأشخاص العاملين فيها.					
17. I owe a great deal to my organisation. أنا مدين بالكثير لمنظمتي.					

E. Work engagement المشاركة في العمل

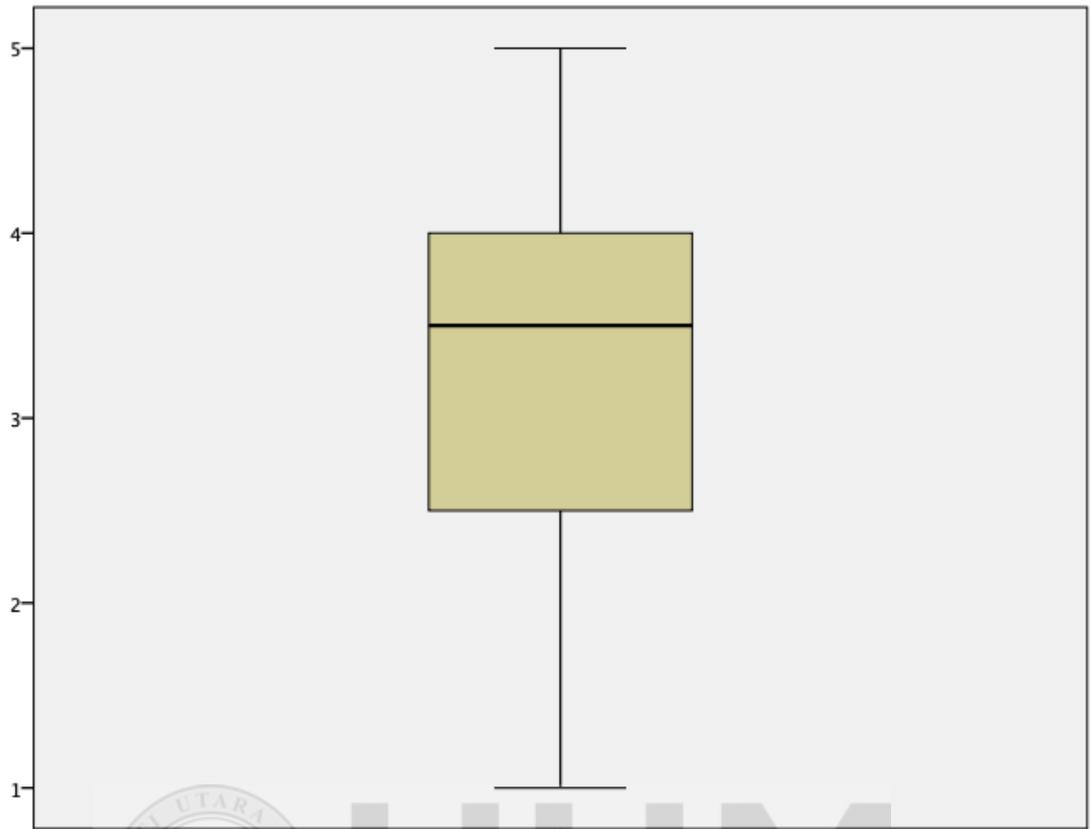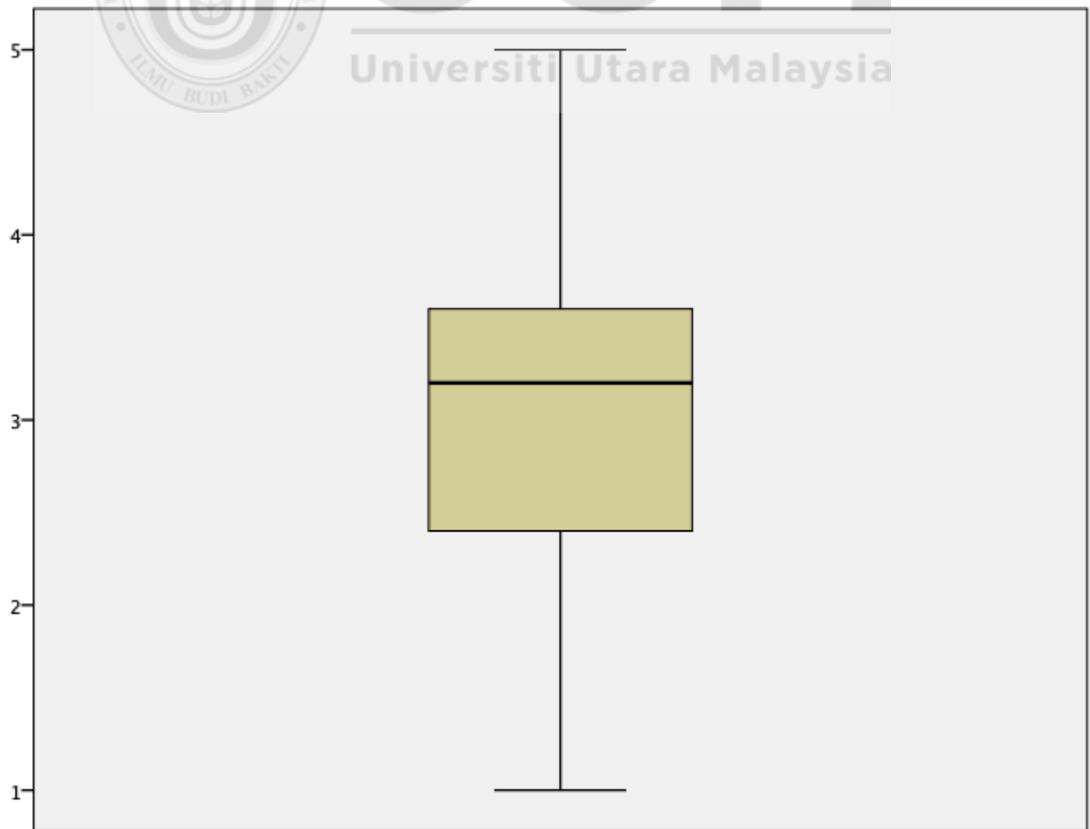| العبارات Statement	1	2	3	4	5
1. I always appear enthusiastic at work. أبدو متحمسًا دائمًا في العمل.					
2. I am always eager to work for a very long time. أنا دائمًا حريص على العمل لفترة طويلة جدًا.					
3. I am always proud of the work I do. أنا فخور دائمًا بالعمل الذي أقوم به.					
4. I always find the best meaning and purpose in the work I do. أجد دائمًا أفضل معنى وهدف في العمل الذي أقوم به.					
5. My work is always challenging and inspiring. عملي دائمًا ما يكون ملهمًا وملهمًا.					
6. I am always carried away and immersed in my work. أنا منغمس دائمًا في عملي.					

End of the Questionnaire
نهاية الاستبيان
Thank You
شكراً لكم

Appendix B: Boxplot

Transactional Leadership

Transformational Leadership

Organisational commitment

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Appendix C: Normality

Sustainable Performance

Transactional Leadership

Transformational Leadership

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Organisational commitment

Work Engagement

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