UNIVERSITY OF CAPE COAST

PUBLIC LEADERSHIP BEHAVIOUR AND EMPLOYEES' INNOVATIVE WORK BEHAVIOUR IN GHANAIAN METROPOLITAN ASSEMBLIES; THE ROLE OF ORGANISATIONAL CLIMATE

FRANK BAAFI

2020

UNIVERSITY OF CAPE COAST

PUBLIC LEADERSHIP BEHAVIOUR AND EMPLOYEES' INNOVATIVE WORK BEHAVIOUR IN GHANAIAN METROPOLITAN ASSEMBLIES; THE ROLE OF ORGANISATIONAL CLIMATE

BY

FRANK BAAFI

Thesis submitted to the Department of Management of the School of Business, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Public Policy and Management.

JANUARY 2020

DECLARATION

Candidate Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in the university or elsewhere.

Candidate's Signature..... Date.....

Name: Frank Baafi

Supervisor's Declaration

We hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature..... Date.....

Name: Dr Abraham Ansong

Co-supervisor's Signature..... Date.....

Name: Dr Nick Fobih

ABSTRACT

This study sought to determine public leadership behaviours' influence on innovative work behaviour within the six metropolitan assemblies in Ghana and the role of organisational climate in mediating such a nexus. The study adopted a quantitative approach and the simple random sampling technique was used to collect data from 314 staff of the Kumasi, Cape Coast, Accra, Sekondi-Takoradi, Tema and Tamale metropolitan assemblies through self-administered questionnaires. Partial Least Squares (PLS) structural equation modelling was used to test the hypothesis postulated. The findings revealed that transformational, transactional and network governance leadership behaviours had a significant direct positive effect on employees' innovative work behaviour. Altruistic and entrepreneurial leadership had no significant direct influence on employee's innovative work behaviour. The result of the study also showed a full mediation of organisational climate on the relationship between altruistic leadership behaviour and employees' innovative work behaviour. With respect to transformational leadership, the results showed a partial complementary mediation. There was no significant mediation effect on transactional, entrepreneurial and network governance. The study concludes that leadership behaviour is a determinant of employees' innovative behaviour and that effect can be increased through an organisational climate that supports innovation. The study recommends that training program focuses on developing leadership capacity and stimulating innovative behaviour among employees, and that management work to ensure the creation of an innovation supportive climate.

KEYWORDS

Employees' innovative work behaviour

Transformational leadership

Transactional leadership

Altruistic leadership

Entrepreneurial leadership

Network governance leadership

Metropolitan assemblies

Organisational climate

ACKNOWLEDGEMENTS

I am grateful to my supervisors Dr Abraham Ansong and Dr Nick Fobih and for their guidance and motivation that helped shape the work to its present level. Their encouragement, constructive criticisms, and untiring efforts enhanced this research. I appreciate Dr Nicodemus Osei Owusu particularly and all my lectures and the entire staff of the School of Business, UCC for their unflinching support during my period of study. I acknowledge the support of Josephine Ackah, Gregory Kaku, Kennedy Este Dogbe, all my friends, and colleagues for their moral support and encouragement. And especially to Mr Kwabena Kyei Mensah and Mr Philip Kwabena Amoah Baafi, my fathers, who I cannot put into words the gratitude I owe for the support throughout my schooling to achieve this goal.

DEDICATION

To my sisters, Nicole Serwaah Baafi and Sarah Ama Astou Baafi.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

In today's global governance environment, the introduction of the new public management reforms in the public sector has led to the need to innovate within the public sector to meet the continuously growing demand on public sector organisations for effective and efficient service delivery. Innovation is not a capability or capacity that can be turned on and off at will, it needs to be nurtured in order to be drawn upon when needed. There is, therefore a need to ensure innovation readiness across public sector organisations. This entails stimulating innovative work behaviour across the public service for engaging with new ideas, new methods and new ways of working and delivering public value. It follows that leadership is believed to be vital for innovativeness. However, the question about leadership behaviours that are most likely to foster public innovation is seldom addressed in the public leadership literature. Realizing the importance of innovation, the role of employees leading towards innovation cannot be overlooked. The extent to which public leadership behaviour of managers in the public sector influences the capacity of individual employees to be innovative to achieve high performance at the workplace is the focus of this study. The study uses the Kumasi, Accra, Tema, Sekondi-Takoradi, Tamale and Cape Coast metropolitan assemblies as its case study.

Background to the Study

Innovation has globally been regarded as an important driver for development (Galindo & Méndez-Picazo, 2013; Boachie-Mensah & Acquah, 2015). In the face of the challenges posed by globalisation and demographic changes, innovation within the public sector is currently recognised as a crucial factor at sustaining a high level of public services delivery (Khilji, Mroczkowski, & Assudani, 2012; Lee, Olson & Trimi, 2012; Lee, Hwang & Choi, 2012; Agolla, 2015). Public sector institutions and machinery in Africa are ever more coming under pressure to justify their existence through calls for financial accountability, good governance, operational efficiency and improvements in public service delivery (Lankeu & Maket, 2012; Asogwa, 2013; Engida & Bardill, 2013; Gatere, Keraro, & Gakure, 2013).

As speculated by Awosika (2014), lack of innovation or innovative ideas hinders the performance of the public service and other sectors of the economy due to inefficient utilisation of resources. Due to the lack of innovation, costs, time and quality standards are most times not achieved. Although innovation is located at the heart of service delivery (Janssen & Van de Vliert, 2004; De Vries, Bekkers, & Tummers, 2016), no organisation can achieve it without innovative behaviour of its employees (Abstein & Spieth, 2014). Daglio, Gerson and Kitchen (2015) opined that people are central to public sector innovation at every stage of its process. The argument for innovative behaviour studies is hinged on the fact that innovation today in all its entirety and forms is viewed as to a greater extent a product of the human behavior and capacity (kanter, 1988; Rogers, 2003) than belonging to the

realms of research and development labs where knowledge was discovered (Kheng & Mahmood, 2016).

As postulated by Scott and Bruce (1994), the concept of innovative work behaviour embraces not only the creation of innovative ideas but also the organisation's proactive activities such as the implementation of good ideas. Scott and Bruce (1994) also add that innovative work behaviour is a three-stage process, firstly, individual employee generates creative ideas and solution based on an identified problem; employee then mobilises support for the innovative idea and finally the idea is transformed into a model or a useful application for the individual's work role, group or the organisation. Innovative work behaviour in government is important because innovation influences the government's diverse policy challenges, its need for legitimation and governements'emphasis on effectiveness (De Vries et al., 2016).

Innovative employee behaviour is a precondition for an organisation to realize innovation on an organisational level (Jaskovia, 2017). Employees' innovative behaviour can improve organisational performance by deviating from organisational inertia as employees seek to create and apply new ideas to perform their duties (Janssen, 2000; Kleysen & Street, 2001; Xerri & Brunetto, 2013). Although studies have confirmed that innovation is key for organisational growth (Damanpour, Walker, & Avellaneda, 2009; Waheed, Abbas & Malik, 2018; Kremer, Villamor, Aguinis, 2019), innovation is often viewed as low in the public sector (Suseno, Standing, Gengatharen & Nguyen, 2019).

Public sector innovation research indicates that the sector is faced with a long list of obstacles that hinder the innovation capacity of individuals. These include; fear for failure, lack of feedback on ideas, low competition, a relatively high degree of formalisation and bureaucratisation, media and political opposition exposure of public failure to embarrass public servants (Damanpour & Schneider, 2009; Fernandez & Moldogaziev, 2012; Agolla, 2015). Even in the face of these challenges, public organisation, and especially, municipals (local governments) are under severe pressure stimulate and sustain innovation as a means of producing value for public funds invested in them (Ricard, Klijn, Lewis & Ysa, 2017). However, the question that remains unanswered is how such innovation can be spurred. Even though research in public sector innovation is advancing (Lewis, Ricard & klijin, 2018), much is centred on the case for reforms and what changes should be made (Bartlett & Dibben, 2002). There is limited research on stimulating innovative behaviour within the public sector (Bos-Nehles, Bondarouk & Nijenhuis, 2017).

Studies conducted on innovation within the public sector have been focused on policy choices of government leaders (Keller & Block, 2013) and on environmental factors surrounding government organisations (Fishenden & Thompson, 2013; Patanakul & Pinto, 2014), whereas they have overlooked the leadership behaviour and the work climate within which staff of public sector institutions operate. Leadership behaviour within an organisation has been identified by numerous studies as the single most important determinant of an organisational climate that supports innovation (Eisenbeiss, Van Knippenberg &

Boemer 2008; Somech & Drach-Zahavy 2013), and employees' innovative behaviour (Kheng, June & Mahmood, 2013; Busaibe, Ahmad, & Gaur, 2017, Bos-Nehles, Bondarouk & Nijenhuis, 2017; Moussa, McMurray & Muenjohn, 2018).

Gergen (2008), expressed the view that systemic innovation will struggle to become a reality without leadership that fosters the right organisational climate. Leadership at all levels is key for innovation given that innovation capacity is harnessed across all levels within the public sector. Studies have claimed that to stimulate individual innovative behaviour in the public sector, leadership qualities of team managers and supervisors are key (Bass & Riggio, 2006; Eisenbeiss, Van Knippenberg, & Boemer 2008; Somech & Drach-Zahavy 2013; Dorsman, Tummers & Thaens, 2015; Bos-Nehles et.al 2017). Yuan and Woodman (2010), averred that support from a supervisor is needed to ensure the success of innovative work behaviour. Team level leadership fosters innovation climate and consequently the innovative behaviour (Somech & Drach-Zahavy, 2013).

Public leadership has been considered as a distinct and specialized area of study given the complexity of the public sector environment (Ricard et.al, 2017). Therefore, public leadership must be looked at from a different behavioural perspective (Cerami, 2013). The question to answer within the public sector, however, is which leadership qualities are needed to stimulate innovative of employees. Ricard et al. (2017), identified five public leadership behaviours that support innovation within the public sector. These leadership behaviours are; transactional leadership, transformational leadership, altruistic leadership, entrepreneurial leadership and network governance leadership. These leadership

behaviours reflect the qualities cited in literature and theory as needed for innovation (Ricard et al., 2017; Lewis et al., 2018)

The path-goal theory developed by House and Mitchell (1974) focuses on the behaviours a leader exhibits to stimulate subordinates' motivation to achieve both personal and organisational goals. The current version of the theory proposes that leaders use a supportive approach, directive, participative and achievement-oriented leadership to ensure that goals are achieved. These behaviours are reflected in the five theoretical leadership behaviours proposed by Ricard et al. (2017) as supportive of innovation in the public sector. Based on the path-goal theory, this study proposes that the adoption of particular leadership behaviours could ensure that employees develop the necessary innovative capacity for engaging with new ideas, new methods and new ways of working and delivering.

Within the literature, organisational climate has been identified as a contextual factor that is closely related to both innovation (Scott & bruce, 1994) and leadership (Kheng, et. al, 2013; Gendi, 2017). As posited by Kim and Yoon (2015), the perception that employees hold concerning the organisational environment, which includes a general sense of flexibility to change, the ability to recognise creativity and providing the needed resource for innovation depicts the organisation's climate. Leaders play an important role in creating an organisational climate for innovation which includes; provision of resources that include human, financial and time (Lui, 2011; Lopez & Esteves, 2011), creating a climate where employees feel free to express themselves (Diefenbach, 2011). Various studies have concluded that an innovation supportive climate mediates the relationship

between leadership and innovative behaviour (Naami & Asadi, 2011; Da Costa et al., 2014; Conteras, Domberger & Acosta, 2017). However, these studies were conducted within developed economies and in the private sector.

Following from the Social Exchange Theory (SET), which is based on the principle of reciprocity, the study proposes that employees engage in innovative behaviour in relation to an organisational climate that supports innovation created by their leaders (Xerri & Brunetto, 2012; Kheng et al., 2013). Based on the SET and the Path-goal theory, this study postulates that leaders adopt specific leadership behaviours and create an organisational climate which in turn stimulates innovative behaviours among employees based on the reciprocity principle (Gouldner, 1960). Leaders create an innovation supportive climate by providing innovation resources in advance, not as a direct reward of performance by employees (Schulte, Hauser & kirsch, 2009). Therefore, the climate of the organisation provides the mechanism through which multiple leadership behaviours influence innovative work behaviour.

This study is situated within the six metropolitan assemblies in Ghana. The Metropolitan, Municipal and District Assemblies (MMDAs) in Ghana's constitution are seen as a laboratory of democracy and also the principal agent for advancing the cause of equal opportunity, redistribution of wealth and poverty reduction among other things (Adu-Gyamfi, 2014). They represent a nexus of structures to deal with societal problems. In Ghana, the various metropoles are are a hub of societal challenges as a result of large number of inhabitants and outcomes of rural urban migration, most Ghanaians work in these cities and these are places

where a lot of innovation occurs because the needs are so pressing. The choice of metropolitan assemblies for this study is based on the argument that they are the level of government that is closest to the people and have ongoing interactions with them, making them a likely site for innovation for a higher level of service delivery (Lewis et al., 2018).

To assess the level of the service delivery performance among MMDAs in Ghana, the District League Table (DLT) was launched in 2014, a collaboration between UNICEF, Local Government Ministry and the Centre for Democratic Development (CDD, Ghana). The report ranks MMDAs based on their performance on key indicators; education, sanitation, rural water, health, security and governance (DLT, 2014). The DLT is in its fifth year of publication (2018/19). The performance and ranking of the six metropolitan assemblies in Ghana since 2014 is attached as Appendix B. With respect to their ranking, it is only in the 2018/19 ranking that more than one (3) metropolitan assemblies are within the top 10 and have scored more than 70%, from 2014-2017 results show that only the Tema Metropolitan Assembly has been improving in their position over those four years (20^{th}, 1^{st},2^{nd} and 1^{st}), scoring above 75% with the exception of 2014. The scores indicate that service delivery performance of most Metropolitan Assemblies has been falling over the years (DLT, 2017).

Also, the Ministry of Local Government and Rural Development (MLGRD) since 2008 implemented a Performance-Based Grant System (PBGS) through which MMDAs were assessed on indicators using the Functional Organisational Assessment Tool (FOAT), and motivated by giving high performers additional

resources known as District Development Facility (DDF), (MLGRD, 2009; Ghartey, 2012). Despite its success as a performance management tool, Bawole and Ibrahim (2016) opine that the FOAT reports, like most audits, only provide quantitative evidence, which fails to capture the qualitative or other relevant explanatory factors behind the recorded performance improvement. Gharthey (2012) also adds that the FOAT, just like other performance management tools, pays no attention to whether and to what extent leadership approaches and behaviours within the local government is key for participation and creating the right environment for enhanced performance, which results from innovative ideas and actions.

Statement of the Problem

The recent call for innovation in the public sector has a variety of push factors; an important driver is the need to provide personalized public services to citizens, timely and in improved quality in a situation of fiscal stress and increasing societal problems (United Nations, 2007; De Vries, Bekkers, & Tummers, 2016). The perception that the public sector is not innovative is commonly held in most developing countries (Blayse & Manleyi, 2004). In most African countries, citizens often complain that public service delivery is inadequate, inferior, inappropriate, or too costly for their hard-earned tax payments (Muhammad, Muhammed & Aliyu, 2013).

The Ghanaian local government is also characterized by the problem of 'poor quality' in government service delivery performance (Armah-Attoh, 2015). Puopiel and Chimsi (2015) added that MMDAs fail to meet their targets and goals

due to lack of innovation on the part of the assemblies and in part due to a lack of required staffing and skills. Also, Gyimah-Boadi (2009) posited that the subnational government system in Ghana has been plagued with leadership, the right environment for participation and performance challenges. Corollary to this, the 2018-2019 DTL (II) report attributes successes in key service delivery problems such as open defecation to leadership and innovation advocacy within the successful assemblies (pg. 21). Bearing in mind that metropolitan assemblies represent the highest level within the MMDAs structure based on their population (ILGS, 2016), addressing these performance shortfalls is key for national development.

While studies across the globe have concluded that fostering innovation could obviously be a useful strategy for addressing service delivery falls within the public sector (Drosman, 2017; Waheed, et.al, 2018; Kremer, et. al, 2019), and that public sector innovation is fundamentally an individual human activity (kanter, 1988; Rogers, 2003; OECD, 2017), previous studies on public sector innovation neglected examining innovative work behaviour (De Vries et al., 2016; Agolla, 2015; Bankins, Denness, Kriz, & Molloy, 2017). According to Iqbal, Anwar and Haider (2015) the problem with innovation in the public sector happens due to lack of strategic interventions of specific leadership styles to particular situations.

The direct effect of various leadership behaviour on the innovativeness of individual employees is not conclusive. The study of Lewis et al. (2018) found a positive significant effect of network governance leadership, transformational, and entrepreneurial leadership on innovation, however, the effect of altruistic

leadership was negative and transactional leadership was insignificant. Contrary, the study of Xie et al. (2018) concluded that transactional leadership style positively correlates with innovation atmosphere. The study of Namara, Karyeija and Mubangizi (2015) found no association between network governance leadership and staff capacity to be innovative. Dominguez Escrig et al (2016) concluded that altruistic leadership behaviour has a positive significant effect on the capability of developing innovations. The inconclusive results indicate that the issue of leadership and innovative behaviour is worth researching.

The link between leadership behaviour and innovative behaviour remains unclear for some important reasons. Firstly, majority of these studies were carried among private sector institutions and in developed economies (Kheng et al., 2013; Dominguez Escrig, Broch, Chiva-Gomez & Lapiedra, 2016; Bos-Nheles et al., 2017; Moussa et al., 2018; Xie et al., 2018) with none found so far in Africa and the Ghanaian setting specificaly. Again, none of the public sector studies considered the context of the leadership and employees within local and subnational governments. Yet, this is the level where the exercise of public leadership is most evident to citizens (Getha-Taylor & Morse, 2013). Fuhr and Campbell (2004) postulate that despite the role of the local government under decentralization, staff at the local government level tend to be inadequately understood and little studied. Even though staff at the local government level play an important role in policymaking and implementation.

Other studies conclude that the effect of leadership on innovative behaviour may not be a direct one, as this can be achieved by creating an organisational

climate conducive for innovation (Naami & Asadi, 2011; Zhang, Zheng & Darko, 2018). Again, the lack of conclusiveness probably may allude to the expulsion of mediating variables, such as organisational climate in the relationship. Given the fact that leadership is contextual, as people's individual and organisational characteristics lead to particular perceptions and behaviours (Alvinius, 2017) and in line with the earlier arguments, this study, therefore, sought to fill the gaps identified and contribute to the literature by examining organisational climate's role on the five public leadership behaviour and innovative work behaviour nexus within the six metropoles in Ghana.

Purpose of the Study

The purpose of the study is to determine public leadership behaviours' influence on innovative work behaviour within metropolitan assemblies in Ghana and the role of organisational climate in mediating such a nexus.

Research Objectives

1. Assess the influence of dimensions of leadership behaviour on innovative work behaviour of staff in the Kumasi, Accra, Tema, Sekondi-Takoradi, Tamale and Cape Coast metropolitan assemblies
2. Assess the effect of organisational climate on innovative work behaviour of staff in the metropoles.
3. Examine the mediating role of organisational climate on leadership behaviour and innovative work behaviour nexus among the staff of the metropoles.

Research Hypotheses

Based on objective one, the following hypotheses were tested;

H1a: Transformational leadership has a positive effect on innovative work behaviour

H1b: Transactional leadership has a positive effect on innovative work behaviour

H1c: Altruistic leadership has a positive effect on innovative work behaviour

H1d: Entrepreneurial has a positive effect on innovative work behaviour

H1e: Network governance leadership has a positive effect on innovative work behaviour

Based on objective two, the following hypothesis was tested;

H2: Organisational climate has a positive effect on innovative work behaviour

Based on objective three, the following hypotheses were tested;

H3a: Organisational climate mediates the nexus of transformational leadership and innovative work behaviour

H3b: Organisational climate mediates the nexus of transactional and innovative work behaviour

H3c: Organisational climate mediates the nexus of altruistic leadership and innovative work behaviour

H3d: Organisational climate mediates the nexus of entrepreneurial leadership and innovative work behaviour

H3e: Organisational climate mediates the nexus of network governance leadership and innovative work behaviour

Significance of the Study

Investigating public leadership and innovativeness within the six metropolitan assemblies can be of principal interest to the government. It will help the government to formulate appropriate policies capable of helping public leaders and managers improve the leadership capacity needed to stimulate innovative behaviour to solve complex societal problems. The results of the study would help leaders/managers within public sector organisations to see employees as a source of innovation success. Being a pioneering study on the topic in Ghana (a developing nation) the results and recommendations from this study will set the pace in developing and discussing contextual solutions to social problems in another similar context. The prevailing literature will also see the contribution of this study as to how various leadership behaviours contribute to employee innovativeness through an organisational climate that supports innovation, highlighting the applicability of the study in the Ghanaian and another context.

Delimitations of the Study

The current study was confined within metropolitan assemblies, though there were several MMDAs. The restriction of the study to only the six metropolitan assemblies is not without premise since similar studies in the public sector were conducted within the higher level of subnational governments (Ricard et al. 2017; Lewis et al., 2018). With respect to variable measurements, the study relied only on generally accepted sources (Ricard et al., 2017; Bass & Avolio, 1995; Dominguez Escrig et al., 2016; Scott & Bruce, 1994), though there were other equally reliable scales for measurements of the study's constructs.

Limitations of the Study

This study uses a single primary data source (employees of the assemblies). Data from single source can be affected with the potential presence of common method bias and this can affect the results of the study. This necessitated using statistical to test for bias. Since the study employed the use of questionnaire in collecting data and it was a cross-sectional, employees did not have the opportunity of indicating other contextual factors that could influence innovative work behaviour. This notwithstanding, studies of the same nature have been advanced in the literature where some dimensions are investigated and recommendations are made. Due to the use of questionnaire in collecting data, some respondents failed to answer in which case the study could not capture the response of the entire sample. However, since respondents were randomly sampled, this will not affect the results of the study.

Organisation of the Study

This study is organized into five chapters. Chapter one constitutes the introduction, which focuses mainly on the background, the problem statement, and objectives of the study in addition to organisation of the study. Following the introductory chapter, chapter two presents a review of the theoretical and empirical literature pertaining to the concerns of the thesis. Chapter three provides information on the methodology used in the research, population, sample and tools of analysis used in the study. In Chapter four, the results of the study are presented and discussed. Chapter five also contains a summary of the major findings, conclusions, implications, recommendations and suggestions for futher studies.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter provides a review of the theoretical and the empirical framework on public leadership, organisational climate and employee innovative behaviour. The review also shows how these constructs relate in a public sector setting. This chapter is based on the study's research problem, research objectives and hypotheses. The purpose of the study was to determine leadership behaviour's influences on employee's innovative behaviour and the role of organisational climate in mediating such a nexus. The write-up of the chapter will begin with review of theories underpinning the study, before addressing conceptual and empirical issues of leadership behaviour, organisational climate and employee's innovative work behaviour.

Review of Theories Underpinning Leadership Behaviour, Innovative Work Behaviour And Organisational Climate

Leadership behaviour derives most of its theoretical foundations from several leadership theories. Corollary, the complex nature of public sector demands a leadership approach that emanates from multiple behavioural perspectives as this will be ideal for achieving employee innovativeness and high performance. Notable among these is the path-goal theory. In this study, the path-goal theory is used to establish the link that exists between leadership behaviour and employee's innovative work behaviour in the public sector. Also, the social exchange theory

will be used to establish the relationship between leadership behaviour, organisational climate and innovative work behaviour.

Path-Goal Theory

Path-Goal theory is categorised under the contingency approach, which concentrates its studies on the interaction between the variables involved in a leadership situation and patterns of leadership behaviour. The theory is based on the belief that denies the existence of a single leadership pattern for all cases (Fielder, 1967). According to House and Mitchell (1974), Path-Goal theory focuses on the behaviours a leader uses to stimulate subordinates' motivation to achieve both personal and organisational goals. In the initial version, House (1971), classified two types of leadership behaviours that are behaviour directed toward the satisfaction of individual's needs and path-goal clarifying behaviour. Based on these descriptions, they were not well defined operationally as part of the theory.

The two leadership behaviours were expanded to four well defined behaviours (House & Mitchell, 1974). The four behaviours included; **Directive leadership,** which depicts the psychological support a leader provides to individuals through basic tasks of providing instructions on what is expected of subordinates, how it is done and offering timeliness. In addition, **supportive leadership,** which is another behaviour focused on being friendly and approachable, and keen on satisfying the needs of individuals. The third leadership behaviour is **participative leadership,** this typically is a directive leadership behaviour that emphasises individual participation in decision making, where subordinates are encouraged to provide suggestions and share ideas to be integrated

in the organisation. The fourth behaviour is the **achievement-oriented leadership**, this behaviour focuses on challenging individuals through setting performance goals, focusing on performance excellence to achieve high standards and improved confidence (House & Mitchell, 1974; House, 1996).

Leadership behaviours can be exercised in different situations by the same person (House & Mitchell, ibid). Ratyan, Khalaf and Rasli (2013) add that, the applications of one or many of these behaviours by a manager can results in influencing subordinates and pave the way for the achievement of goals. House (1996) adds that, the essence of the path-goal theory is rooted in the fact that, the effectiveness of leadership rest in the engagement of behaviours that complements subordinates' environments and abilities in a way that is instrumental to the subordinate's satisfaction, individual and work unit performance and compensates for deficiencies that exits within the system. By choosing the appropriate behaviour, leaders can increase subordinates' expectations for success and satisfaction (House & Mitchell, 1974).

A review of the Path-goal theory has determined some weakness. It is difficult to use the theory in a specific organisational setting because it comprises a large number of interconnected hypotheses sets. The theory fails in perceiving the leadership transactional nature although it is leader-oriented theory. Furthermore, the theory does not encourage the subordinates to participate in leadership process (Northhouse, 2010; Ratyan, et al. 2013). Amidst these weaknesses, the theory has several positive strengths which include; the provision of groundwork for understanding situations where a leader's behaviour will motivate an individual's

performance and job satisfaction in distinct leadership behaviours (Jermier, 1996; Cote, 2017). The theory provides a great model for helping individuals clarify goals, set goals through coaching and direction to achieve goals of productivity (House & Mitchell, 1974; Cote, 2017).

In the view of Ratyan et al (2013), the path-goal theory is employed to explain the fact that the leader's behaviour affects the subordinate's satisfaction, motivation and performance. The theory proposes that leadership behaviours can be exercised in different situations and times by the same leader. Based on the assumptions proposed by the path-goal theory, this study argues that public leaders act as facilitators and various leadership behaviours to motivate subordinate towards innovativeness by removing obstacles, creating support networks and creating an innovation supporting environment. Based on the path-goal theory, leadership behaviours as a source of influence can change the attitude, motivation, and behaviour of an individual subordinate (Malik, Dhar, & Handa, 2016). Given the high levels of environmental complexity that characterises the public sector, leadership behaviours appears to be a practical tool for answering the need for an innovative workforce (Sarti, 2014; Bos-Nheles et al., 2017).

Social Exchange Theory

The social exchange theory (SET) was initiated by Hormans in 1958 (Devan, 2006). The theory refers to a two-sided rewarding process involving two or more social groups engaged in tangible or intangible exchanges (Balu, 1964; Rasoolimanesh et al. 2015). It implies that social behaviour is the result of an exchange process (Soieb, Othman & D'Silva, 2013). Social exchange theory aims

to explain human behaviour in social exchange, and differs from the economic exchange theory through two assumptions: general expectations of future return with uncertainty and long-term relationships rather than one-off exchange (Blau 1964). The main reason for this exchange is to maximize benefits and minimize costs (Soieb et al. 2013). The theory has been used in many fields, especially in investigating innovative behaviour and creativity (kheng et al. 2013; Zhang, Zheng & Darko, 2018).

According to Blau (1964), SET in the environment of an organisation has the principle that employees might feel obliged toward their supervisor, co-worker, or organisation if they have received any benefit from an exchange with the individual or the organisation in the past. Konovsky and Pugh (1994) suggest that the immediate supervisor or leader is an agent of the organisation. Therefore, because a supervisor has his/her own exchange relationship with employees and can influence the relationship an employee has with the organisation, supervisors are considered to be a pillar that supports the social exchange framework (Tekleab & Chiaburu, 2010). The theory has the basic principle that employees will pay back their supportive leaders by demonstrating positive behaviours and attitudes, which contribute positively to organisational citizenship behaviour, work performance, and innovative work behaviour (Xerri & Brunetto, 2013; Choi, Kim, Ullah & Kang, 2016).

In this study, it is postulated that based on the SET, leaders adopt specific leadership behaviours and create an innovation supportive climate in the organisation which in turn stimulates innovative behaviours among employees

based on the reciprocity principle (Gouldner, 1960). Leaders create an innovative supportive climate by providing innovation resources in advance, not as a direct reward of performance by employees (Schulte, Hauser & kirsch, 2009). This theory, therefore, implies that employees will increase their loyalty, engagement, and work performance since they are obliged to return the act of kindness that they have received (Aselage & Eisenberger, 2003). Hence, the above descriptions depict that when employees are given more innovation-relevant resources, the more trust and fairness will be perceived by them exist in the organisation. This will, in turn, make the employees obliged to take on the extra role behaviour (Organ, 1988) which is important in seeding innovative behaviour among the employees. The larger the obligation, the greater it will exert the innovative behaviour on them (Blau, 1964).

Deductions from the theoretical review

The path-goal theory supports the view that leadership behaviour is contextual, depending on the goal and the environment. Given the complex nature of the public sector and the various conflicting goals public sector organisations in Africa are set out to achieve, a look at leadership based on just a behavioural or trait perspective will give a myopic view of the impact of leadership in organisational setting. Therefore, if the goal is to stimulate innovative behaviour to deal with complex public problems, leadership can best be approached from a multi behavioural perspective. This gives a background for approaching the leadership behaviour-employee innovative behaviour link from the five innovation-related leadership behaviours proposed by Ricard et al. (2017) and Lewis et al (2018).

The social exchange theory as used in this study, supports the proposition that an employee's innovative work behaviour is dependent on leadership behaviour and the climate within the organisation. The extent that leadership behaviour and climate influences innovative behaviour is based on the principle of reciprocity. Innovativeness can, therefore, be spurred in the public sector if leaders adopt behaviours that communicate the right perception of trust, fairness and support for innovation to employees. In addition to this, public leaders can achieve the goal of stimulating innovative behaviour among employees if the resources for innovation are provided, not necessarily as a reward for employees' performance. When such resources and support is provided in advance, it gives employees perception of an innovation supporting climate. In summary, leadership behaviour and provision of innovation resources will stimulate innovativeness among employees.

Conceptual Review of Leadership Behaviour, Employee's Innovative Work Behaviour and Organisational Climate

This section seeks to provide an extensive discussion and enhanced knowledge with respect to the constructs used in this study. How the various concepts are operationalized in literature will be addressed. Leadership behaviour will initially be addressed followed by a discussion of the five behaviours considered in this study. In addition, innovative work behaviour will be addressed with an emphasis on the context of the public sector. Finally,organisational climate will also be discussed with much emphasis on innovation resource provision.

Leadership

In literature, most definitions of leadership reflect the assumption that it involves a social influence process whereby intentional influence is exerted by one person over the others to structure the activities and relationships in a group or organisation (Nguyen, 2009). Leadership behaviour is defined as a series of attitudes, characteristics and skills used by a manager in different situations in accordance with individual and organisational values (Mohammad & Hossein, 2006). However, for the purpose of this research, the author focuses on the concept of leadership through an innovative work behaviour perspective. Leadership, by its influence component, stimulates the generation and implementation of ideas in an organisation.

Bass (1990), defined leadership as an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the member. Leaders are agents of change – persons whose acts affect other people more than other people's acts affect them. Huber (2006) defined leadership styles as different combinations of task and relationship behaviours used to influence others to accomplish goals. According to Bass (1990), there are sufficient similarities between the various definitions of leadership to identify certain common factors. These common factors are: "the focus of group processes"; "a matter of personality"; "a matter of inducing compliance"; "the exercise of influence"; "a form of persuasion"; "a power relation"; "an instrument to achieve goals"; "an effect of interaction" and "an initiation of structure" (Bass, 1990).

Leadership in organisations does not take place in a vacuum; it takes place in organisational contexts (Porter & McLaughlin, 2006). Avolio (2007) suggested that context should be considered in all theories of leadership because it can affect and be affected by leadership effectiveness. Therefore, the leader's behaviour affects the organisational context in which he or she operates or works, and the various aspects of an organisation's context (e.g., how centralised or formalised it is, its culture and norms, etc.) influence organisational performance. Radu, Deaconu and Frăsineanu (2017) also point out that leadership is contextual, as people's individual and organisational characteristics lead to particular perceptions and behaviours. It is imperative to also understand leadership in the context of the political system, not only with the conceptual and cognitive frame of business organisations (Villoria & Iglesias, 2010). Within the context of the MMDAs, this study considers leadership behaviours of direct supervisors.

Role of Direct Supervisors

Leadership is present at all levels within the public sector. This study is concerned with the leadership behaviours of direct supervisors. Several studies show that direct supervisors, managers, executive and senior managers influence innovative behaviour by encouraging and supporting employees to generate and implement new ideas (Amabile, 1996; Amabile, Hadley & Kramer, 2002). Various studies have concentrated on the role of team leaders and immediate supervisors on influencing employees' ability to generate ideas and solve problems (Tummers & Thaens, 2015; Bos-Nehles et.al 2017). Vigoda-Gadot and Beeri (2012) point out that the immediate manager of an employee is a major influence on his/her

performance, exchanges between an employee and his/her direct supervisor are the basic determinant of employee behaviour (Wayne, Shore & Liden, 1997).

The New Public Management movement within public administration has spurred research and discussions on the role of public managers and direct supervisors to improve performance of government organisations by influencing the behaviours of their subordinates (Behn, 1991; Hassan & Hatmaker, 2014). The role of direct supervisors is an integral part of innovative organisational performance for at least two reasons. First, leaders construct the environments that favour creativity and ultimately innovation (Hemlin et al., 2008; Shalley & Gilson, 2004). Second, leaders manage the strategic innovation goals and activities of their organisations. Leaders may set these goals and direct these activities by managing time, facilities, money, and knowledge resources (Drazin et al., 1999). Thus, the leader orchestrates the dual process (a) of providing support to teams and individuals as they turn their creative efforts into innovations (leader as facilitator), and (b) of managing the organisation's goals and activities aimed at innovation (leader as manager) (Hemlin, 2006).

Leadership Behaviours

It has been established that leadership behaviour is the single most important way in which an individual can influence the level of innovation in an organisation (Gumusluoğlu & Ilsev, 2009; Busaibe, Ahmad, & Gaur, 2017). In line with this point, Ricard et al (2017) explored important leadership qualities for innovation within public sector organisations. The survey was based on 365 senior public managers in Copenhagen, Rotterdam and Barcelona. The study identified

five leaderships behaviours key for innovation. These leadership behaviours are; transactional leadership, transformational leadership, altruistic leadership, entrepreneurial leadership and network governance leadership. These leadership behaviours reflect the qualities cited in literature and theory as needed for innovation (Ricard et al., 2017, Lewis et al., 2018). This study is based on these five theoretical leadership behaviours.

Transformational leadership

Transformational leadership was originally introduced by Burns (1979) and further developed by Bass (1985). Transformational leadership is a leadership style that is based on effecting revolutionary change in the organisation through commitment to the vision of that organisation (Sullivan & Decker, 2001; Nayab, 2010). According to Bass (1997), it is a people-centred type of leadership that encourages innovation among subordinates and improvement at workplace environment. Yukl (1989) sees the main motivation of transformational leadership research in the conceptualisation of an appropriate style to transform organisations. Transformational leaders are committed to organisational goals and seek the best possible performance through motivating and inspiring their followers to achieve high expectations and through encouraging knowledge dissemination and innovative culture by organisational members (Bass & Avolio, 2000).

Bass (2006) proposed four conceptual components to transformational leadership namely; Charisma or idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, which has been termed as “The Four I’s”. The Charismatic or Idealized influence characterizes

respect and trust that is built on a more solid ground of ethics and morals. These results from the charismatic leaders' display of certain attributes like taking stands, showing concern for the emotional and physical needs of followers, sharing risk, exhibiting unequivocal values and acting them out to the latter and serving as a role model to the follower. These would lead to a subsequent admiration by the follower for the leader (Adjei, 2015; Al-Farhan, 2018).

With respect to "Inspirational Motivation", leaders are capable of heightening team spirit by inspiring optimism and enthusiasm through their emotional, non-intellectual, qualities. They clearly envision attractive future prospects and communicate goals, shared vision, challenges, and expectations that followers would want to meet. Such leaders are often successful at developing self-confident, action-oriented followers (Chaudhry, Javed, & Sabir, 2012; Al-Farhan, 2018). The third dimension is intellectual stimulation. Leaders, who demonstrate this, tend to encourage creativity among their followers' leaders encourage their followers to question assumptions, think of old situations in new unprecedented ways, and reframe problems and suggest solutions. Under these conditions, creativity and innovativeness are encouraged and there is no place for public criticism of mistakes since members are encouraged to try new approaches that may be different from the leader's way of doing things (Adjei, 2015).

The fourth component is "Individualized consideration". The inspirational motivation, another component of transformational leadership, stimulates and challenges the followers to achieve the organisational goals whereas intellectual stimulation, inspires employees to be more creative and innovative to solve

problems (Bass & Avolio, 2000). The transformational leader is at the centre as the core figure around whom changes, and thus also innovations take place.

Transactional leadership

Leithwood (1994) defines the transactional leadership style as a leader model using various compensation incentive to exchange outcomes needed. Transactional leadership style is a task-oriented and interactive leader manner. It relies on timely and appropriate incentives. Different from transformational leadership style, transactional leadership style helps organisations achieve their goals by making job reward and remuneration clear (Burns, 1978). Van Wart (2012) postulates that with the transactional perspective of leadership, leaders rely mostly on rational incentives and strategies to obtain the desired performance. Leaders try to steer by clarifying goals, monitoring the behaviour of subordinates and emphasizing task-oriented domains (Van Wart 2012). Innovation clearly emanates from the leader and his/her ability to steer subordinates (Ricard et al. 2017).

Burns (1978), who was first to explore the transactional leadership style, signifies that the transactional leaders always want to stimulate their subordinates by tempting and appealing to personal compensation. According to Bass (1995, 1997), there are several different types of behaviour inherent in transactional leadership. (A)Contingent reward: The leader provides contingent rewards for good effort and good performance, and recognises accomplishment in order to reinforce appropriate behaviours and discourage inappropriate behaviours. (B)Management by exception: The leader maintains the status quo and intervenes

when employees do not meet acceptable performance levels. This behaviour involves monitoring subordinates and corrective action, when necessary, to ensure that the works are carried out effectively. (C)Laissez-Faire: This is the avoidance or absence of leadership. This behaviour entails avoiding decision making and abdicating responsibilities.

Transactional leadership has received less attention by scholars in its relation with innovative behaviour (Faraz, Ahmed, Estifo, & Raza, 2018), possibly because this style is more tasks oriented and promotes status-quo for achieving desired performance which does not seem appropriate for innovation. However, a keen perusal of the existing literature on the relationship of this leadership behaviour to employee's innovativeness revealed an abundance of inconsistencies in the findings. This ranges from directly negative (Bass, 1985; Lee, Si & Wei, 2012) to directly positive (Hussain, Abbas, Lei, Haider & Akram, 2017; Faraz, Yanxia, Ahmed, Estifo & Raza, 2018) and even no relationship (Lewis et al., 2018). The extant literature establishes a significant gap for future research to explore the effect of this leadership behaviour on innovative work behaviour.

Altruistic leadership

The Altruistic perspective emphasizes how leaders interact with their employees and how they manage these relationships to get the best out of them, even at the expense of personal gain (Tummers & Knies, 2013). According to Simmons (1991) altruism: first, is the willingness to do things that seek to increase the welfare of others, not one's own, second, is voluntary, third, is intentional, involving helping others, and fourth, expects no reward. Altruism is, therefore, the

feeling or tendency to do good to others, even at the expense of personal gain. Altruistic leadership is the guidance of others with the final goal of improving their wellness, but unfortunately, there are not many studies regarding altruistic leadership (Barker, 1997; Staub, 1991, 1992). Barker (1997) depicts altruistic leadership as a common higher calling to social compassion from a universal ethical conscious. This leadership behaviour is key for commitment to public service.

Kanungo and Conger (1993) consider that the high complexity of today's economy and society call for a greater degree of interdependence (rather than independence), more attention based on cooperation (rather than competition) and greater organisational loyalty, moving away from individualism. Chin (2012) posits that altruistic leadership behaviour is needed to engage employees for innovation. Altruistic leadership as well helps leaders build up trust among the team and it helps their subordinates align their personal goals with corporation goals. It may encourage altruistic behaviours among employees and foster a reciprocal culture within the organisation. Therefore, any organisation which has committed leadership can achieve the desired level of engagement with less cost of doing it.

Ricard et al. (2017) postulate that in the altruistic perspective, the leader is a facilitator who builds relationships vis-à-vis the people in the organisation, provides a moral example and is willing to take responsibility for the whole organisation and its members (stewardship). Activities performed by leaders in this perspective mainly involve the empowerment of employees and fostering an atmosphere of trust and cooperation among employees (Van Dierendonck, 2011). Innovation results from the creativity of the organisation's followers and

employees. This study, therefore, adds that altruistic leadership behaviour encourages trusts, provides support which are key attributes for innovative behaviour.

Entrepreneurial leadership

Entrepreneurial leadership is a hybrid concept, based on the fusion of leadership with the concepts of entrepreneurship by (Schumpeter, 1934), entrepreneurial orientation (Covin & Slevin, 1988) and entrepreneurial management (Gupta et al. 2004). It highlights leadership that is "taking a strategic approach to entrepreneurship" to give value to entrepreneurial initiatives, which continually support the development of enhanced capabilities in an organisation (Gupta et al. 2004, 243). Entrepreneurial leadership is defined as "leadership that creates visionary scenarios that are used to assemble and mobilize a 'supporting cast' of participants who become committed by the vision to the discovery and exploitation of strategic value creation" (Gupta et al. 2004, 242), and is perceived as "the ability to influence others to manage resources strategically in order to emphasize both opportunity seeking and advantage-seeking behaviours" (Ireland et al. 2003, 971).

McGrath and Macmillan (2000) defined entrepreneurial leadership as the extent to which the leaders depict the entrepreneurial attributes. These are directed discovery of opportunities; creative integration of the network of the people and resources; and rapid arena building for serving greatest possible interests. Other dimensions of an entrepreneurial leader include; good at the identification of opportunities (Chen, 2007; Kuratko, 2007); risk-taking beyond security (Kuratko,

2007); sustaining innovation and adaptation in high velocity and uncertain environment (Surie & Ashley, 2008). While in some studies, entrepreneurial leadership has been looked at in terms of; capacity to communicate vision to engage teams to identify, develop and take advantage of opportunities (Roomi & Harrison, 2011); and creating value for the organisation (Greenberg, McKone-Sweet & Wilson, 2011). Entrepreneurial leadership and its function have not received the required empirical attention (Kim, et al. 2017).

While some might argue that entrepreneurship in the public sector context is an oxymoron due to its bureaucratic nature, some studies have demonstrated that entrepreneurship in the public sector is alive and well (Currie, Humphreys, Ucbasaran & McManus 2008; Kim, 2010). The public-sector environments change rapidly due to frequent changes in policy or in the societal environment in which public organisations must operate (Pablo et al., 2007; Piening 2013), with respect to the entrepreneurial leadership perspective, leaders initiate change through strategic actions, reshaping organisational routines and (re)mobilizing resources. Prior research has suggested entrepreneurial leadership as an influential leadership style and behaviour for stimulating and improving innovative work behaviour, as well as for consequently fostering competitiveness, effectiveness, and the growth of organisations of all sizes and natures (Karol, 2015; Koryak, Mole, Lockett, Hayton, Ucbasaran, & Hodgkinson, 2016).

Network governance leadership

Network leadership refers to the individual ability to establish direct and indirect interpersonal communication patterns of influence (Brass & Krackhardt,

1999; Osborn, Hunt & Jauch, 2002). However, networking is not exclusively an ability to constitute interpersonal links and make contacts with people. It is also a set of activities having structural power effects (Marion & Uhl-Bien, 2001) which are critical to understanding the distinctiveness of leadership in public administration. In organisations where power is diffuse, success or failure of the strategic process depends, among other things, on the capacity of leaders to constitute and maintain strong and durable networks. The particular importance of networks in the public sector has been underlined in the classic work of Laumann and Knoke (1987) and other researchers (e.g., Kickert, Klijn & Koppenjan, 1997).

According to Hajer (2011), current modernistic political institutions face a three-fold problem: 1) there is an implementation shortage where policy does not resolve the issue, 2) a shortage of learning capacity (experienced knowledge and experiences are not integrated into existing processes) and, partly because of this, 3) there is a shortage of legitimacy (citizens and organisations do not trust the government anymore). Hajer (ibid) argues that network governance is the answer for this three-folded problem: an alternative policy process where various levels of government (national government, provinces, and municipalities) cooperate with societal partners to solve societal and technological challenges. The network leadership emphasises on collaboration and it is the leadership behaviour needed in a network setting such as the public sector (Kickert, Klijn, & Koppenjan 1997, McGuire & Agranoff 2011; Klijn, Edelenbos, & Steijn 2010).

Owusu and Appiah (2014) have emphasised the role of multi-level and multi-actor collaboration within the Ghanaian local government to solve “wicked

challenges". The increased emphasis on collaborative governance across the field of public administration consistently necessitated a rethinking of leadership qualities and behaviours to manage networks (Getha-Taylor & Morse, 2013). The idea of a 'network' implies interaction between various actors on the basis of trust, with the aim of solving a policy problem, rather than relying on systems of operation. Network governance can create a sense of collective action and mutual support, to harness the network of resources more efficiently and effectively. Network governance is expected to transform local governance by stimulating the local economy to grow, compete and create jobs, and make better use of local resources (Trah, 2004). Network governance can improve inter- and intra-government relationships as it enhances team spirit, mutual accountability and coordination.

Ricard et al (2017) also espoused this view by stating that the role of a network leader within the public sector is someone who carefully examines the network of available actors, connects them to each other, facilitates exploration of solutions to address problems and engages the involved actors in order to deploy the resources needed for implementation (Klijn, Steijn & Edelenbos 2010). Additionally, they have to build trust and cooperation among actors with different perceptions of the problems in question, different ideas about the most desirable solutions to them and different interests (Koppenjan & Klijn 2004; Klijn, Edelenbos & Steijn 2010; McGuire & Agranoff 2011). Innovations, in this view, are achieved by collaborative leaders who connect actors and necessary information and are able

to share their success with others (Ricard ibid). The following section dwells on employee innovative work behaviour.

Employee's Innovative Work Behaviour

West and Farr (1990) defined innovative work behaviour as "all employee behaviour directed at the generation, introduction and/or application (within a role, group or organisation) of ideas, processes, products or procedures, new to the relevant unit of adoption that supposedly significantly benefit the relevant unit of adoption. Yuan and Woodman (2010) defined employee innovative work behaviour (IWB) as "the development, adoption and implementation of new ideas for products, technologies and work methods by employees". Simply, indicating that it is the application of new ideas to an existing task. As postulated by Scott and Bruce (1994), the concept of innovative work behaviour embraces not only the creation of innovative ideas but also the organisation's proactive activities such as the implementation of good ideas.

Innovative work behaviour is currently typically seen to encompass a broad set of behaviours related to the generation of ideas, creating support for them, and helping their implementation (e.g., Scott & Bruce, 1998; Janssen, 2000). Employees' IWB is at the heart of organisational effectiveness. This significance of employees' innovative work behaviour for organisational sustainability has been mentioned in the literature (Agarwal, Datta, Beard, & Bhargava, 2012). Employees' innovative behaviour is the foundation of higher performance for the organisation and therefore, it is very important to identify that what facilitates or encourages this innovative behaviour by employees (Scott & Bruce, 1994).

Employees' IWB influences performance and image outcomes and is integral to a firm's success (Yuan & Woodman, 2010).

As most public organisations are under increasing pressure to improve their service quality and safety while at the same time to optimize their efficiency levels (Veld et al., 2010; Decramer et al., 2013; Knies et al., 2015), the importance of developing and implementing more efficient technologies and work processes is likely to become essential for the future performance and survival of public organisations. Lack of innovation or innovative ideas hinders the performance of the public service and other sectors of the economy by inefficient utilisation of resources. Costs, time and quality standards are most times not achieved due to lack of creativity and innovation (Awosika, 2014). The study of IWB is thus important as such behaviour is particularly needed in public sector services to improve its service delivery performance (De Vries et al.,2016; Torugsa & Arundel, 2016).

It is important to distinguish between creativity and IWB, two related notions that frequently tend to overlap each other. Although by definition, innovative behaviour involves both, generation and implementation of new ideas (Khan, et al., 2015). Creative behaviour is generally described as one aspect of IWB because innovative behaviour not only includes individual novel idea generation but also adopting other's ideas that can be described as novel to the firm or work unit (Woodman et al., 1993). Furthermore, creative behaviour solely concerns new idea generation, while IWB includes both the generation and implementation of new ideas (Shalley; 2004, Zhou; 2003). The same distinction is generally made between invention and innovation, with invention emphasizing the generation and

construction of new concepts or artefacts and innovation emphasizing the commercialisation, or bringing into use of such artefacts (Conway & Steward, 2009).

Dimensions of Innovative work behaviour

Much of the work on IWB theoretically distinguish between various dimensions, which are often linked to different stages of the innovation process. For example, Scott and Bruce (1994) operationalize IWB as a multi-stage process. Scott and Bruce (1994) distinguished between idea generation, idea promotion and idea realisation, while De Jong and Den Hartog (2010) concluded on idea exploration, idea generation, idea championing and idea implementation. Kleysen and Street (2002) concluded that the process of IWB consists of opportunity exploration, generativity, formative investigation, championing and application. However, the operationalisation of Scott and Bruce is the most adopted one since, it clearly distinguishes between the distinct steps, posing three separate activities without any overlap between them. Second, though several models posing more than three dimensions have been developed later, empirical evidence regarding their validity often is weak (Nijenhuis, 2015).

Idea exploration and generation include looking for ways to improve current products or processes or solving problems through trying to think about them in alternative ways and to combine or reorganize information and existing concepts (De Jong & Den Hartog, 2010). Idea promotion becomes relevant once an idea has been generated. This often implies that a strong coalition needs to be built (Galbrath, 1982), resources are to be mobilized (i.e. Staw, 1990; Howen & Higgins,

1990; Ford, 1996), the right people are to be involved (Howell, Shea & Higgins, 2005) and risks need to be taken (i.e. Kanter, 1983; Amabile 1996) as for most ideas it is not clear whether their benefits will exceed the cost of developing and implementing them and resistance to change often occurs (Kanter, 1988). Finally, implementing new ideas involves activities such as producing a prototype or model of the new product, technology, process or way of doing things (Janssen, 2004) Thus, the concluding step of the IWB process is concerned with the actual production, testing and implementation of the innovative effort.

Organisational Climate

Organisational climate refers to workgroup perceptions of individuals that may or may not be shared (James et al., 2008). Yukl (2006) described the organisational climate as the assumptions, beliefs, and values that member of a group share. Organisational climate is a situational characteristic that can easily affect the innovative work behaviour of co-workers. A co-worker's perception of climate affects the extent to which creative solutions are encouraged, supported and implemented. It encourages innovative ways of representing problems and finding solutions (Martins & Terblanche, 2003). It encourages innovative ways of representing problems and finding solutions (Martins & Terblanche, 2003). Innovative organisations seem to demonstrate good organisational climate (Hartmann, 2006).

Organisational culture and climate have been viewed as being distinct, a function of, or reaction to one another (Hughes, Ginnett, & Curphy, 2002). Nystrom (1990) defined climate as the feelings, attitudes and behavioural tendencies that characterise organisational life. It signals to people what is deemed as important and how it can be accomplished, and closely relates to people's perceptions of

events, practices and procedures and the kinds of behaviours that are rewarded, supported, and expected (Schneider, 1990). Denison (1996), who studied the differences between organisational culture and climate, added that culture, on the other hand, refers to what Denison (1996) termed as an evolved context within which a situation could be embedded and which was rooted in history, collectively held, and sufficiently complex to resist attempts through direct manipulation. Scholars have repeatedly stated that it is difficult to change an organisational culture (Perry, LeMay, Rodway, Tracy, & Galer, 2005) without first addressing the organisational climate.

Organisational climate is closely related to both innovation and leadership (Scott & Bruce, 1994; Kheng, et. al, 2013; Gendi, 2017). Organisational climate for innovation (OCI) is defined as the employees' perception concerning their environment, including a general sense of flexibility to change, recognizing the creativity and providing supplies of resources and time for innovation (Kim & Yoon, 2015). The role of leaders in creating an organisational climate for innovation includes; allocation of resources that include human, financial and time (Lui, 2011; Lopez & Esteves, 2011), creating a climate where employees feel free to express themselves (Diefenbach, 2011). Leaders can affect an innovative climate through their behaviour (Kazama et al.,2002; Scott & Bruce, 1994). Innovations are also made easier when leaders work to develop an organisational climate that encourages employees to "to seek new opportunities, accept risk, collaborate, and commit themselves to the organisation beyond self-interest" (Kalyani, 2011, p. 85).

Lewin et al. (1939) argue that different leadership behaviours create different climates which in turn give rise to varying employee reactions and behaviours. In line with this, Montes et al. (2004) state that innovation should always begin with the encouragement of supervisors including the establishment of a supportive organisational climate. Leaders play an important role in creating different climates and must adjust them to the different phases of the innovation cycle (Mumford et al., 2002). In addition to that, leadership behaviour can majorly influence the perceptions employees to have about the climate for innovation (Isaksen et al., 2001; Ekvall, 1997; Ekvall & Arvonen, 1984). Leaders influence the climate through their visible actions over time that subsequently becomes employees' perceptions. Employees would be encouraged to innovate only when they perceive that leader demands certain organisational practices that encourage innovation (Mumford et al., 2002).

Organisational Climate Dimensions

A model by Dombrowski, Kim, Desouza, Braganza, Papagari and Baloh (2007) proposed a broader set of elements that include some team or group-based motivators. They include elements such as democratic communication, safe spaces, flexibility, collaboration and boundary spanning. Indeed, Martins and Terblanche (2003) conceded that the research provides "little agreement on the type of organisational climate needed to improve creativity and innovation" (p. 69). Once again, as with organisational climate, there seems to be no definitive list of elements that allow an organisation to be innovative. As postulated by Kheng and Mahmood

(2016), the elements of organisational climate cannot be clearly dissected, documented and recreated.

In this study, the organisational climate is based on the model of Scott and Bruce (1994). They proposed a two-factor dimension of organisational climate; Support for Innovation and resource supply for innovation. Support for innovation, which measures the individual's perception of their organisation, whether is open to change, supports new ideas from collaborators and is tolerant to diversity 2) Resource supply, assess the employee's perception about the organisational resources, whether are adequate. Resource supply includes access to appropriate resources, including people, materials, and information (Ronquillo, 2011). This scale is considered the most useful because it is oriented directly on organisational support for innovation (Scott & Bruce, 1994; Sarros, Cooper & Joseph, 2008). Adequate supplies of such resources as equipment, facilities, and time are critical to innovation and the supply of such resources is another manifestation of the organisational support for innovation (Amabile et al, 2004; Nijenhuis, 2015).

Organisational climate for innovation has been measured both as uni-dimensional and a multi-dimensional variable. Some study has considered the role of support for innovation and resource supply independently on innovative work behaviour (Scott & Bruce, 1994; Subramaniam, 2012; Naguib, & Naem, 2018), whiles others have examined climate as a unidimensional variable (Letchumanasamy, 2013; Kheng et al. 2013). Using the social exchange theory, this study focuses on the role of resource supply as an innovative climate dimension on influencing innovative behaviour. As it has been indicated that provision of the

needed resource can nurture innovative behaviour (Martín, Salanova, & Peiró, 2007; Chang, 2013).

Public sector and local government context

Ayee (2013) defines public sector organisations as organisations charged with providing services for the public, mostly financed with public resources or taxes and such services must be guided by some notion of the wider public interest. Four types of organisations exist as indicated by chapter 14 of the 1992 constitutions of Ghana, these are; the civil service, regulatory agencies, public enterprises or parastatals, and regional and/or local governments. This study is situated within the local government of Ghana, specifically metropolitan assemblies. The Metropolitan, Municipal and District Assemblies (MMDAs) in Ghana's constitution are seen as a laboratory of democracy and also the principal agent for advancing the cause of equal opportunity, redistribution of wealth and poverty reduction among other things(Adu-Gyamfi, 2014).

In Ghana, the various metropolises represent a hub of pressing societal needs for innovative solutions, since most of the populace live and work within these cities. The functions of the MMDAs are clearly spelt out in section 12 of the Local Government Act of 2016, Act 936. MMDAs perform a number of functions through their major purpose is to initiate and execute plans that will ensure the economic development of their districts by providing guidance, direction and supervision to the other administrative authorities in the district. The scope of service delivery by MMDAs in Ghana includes basic education, social welfare,

health, water and sanitation, waste management, security and transport (Kuusi, 2009; Otoo, 2017).

Since the 1980s, the Ghanaian public service has undergone reforms over the years in an attempt to align it to global standards and this is even a present phenomenon (World Bank, 2010). As part of the restructuring, the public sector has been the pursuit of decentralisation. In Ghana, decentralisation has been implemented with the main aim of running efficient government machinery and providing strong support for all-inclusive development (National Decentralisation Action Plan, 2003). Public sector reforms have always been a high priority for the government of Ghana, culminating in the creation in 2003 of a Ministry for Public Sector Reform with the aim of fashioning a more responsive Ghanaian public sector, based on performance contracts, service charters, and other civil initiatives (Aryeetey & Kanbur, 2008).

The reforms have achieved mixed results. Over the years, there have been numerous calls on the Ghanaian public sector to enhance quality service delivery and to get value for money. Poor-quality in-service delivery performance is a description attached to the public sector (Asamoah, Osei-Kojo & Yeboah-Assiamah, 2013; Armah-Attoh, 2015). Faced with the challenges of increased population and budget constraints, local governments are still expected to improve their service delivery performance (Otoo, 2017; Lewis et al., 2018). Since staff quality and behaviour has been identified as a factor for service delivery (Doh, 2017), this study, therefore, explores the role of leadership within the metropolitan

assemblies to stimulate and encourage employees to be innovative. The next section describes the nature of public sector leadership.

Public sector leadership

Villoria and Iglesias (2010) point out that leadership from public managers is necessary because, without leadership, public organisations will never mobilize themselves to accomplish their mandated purposes. Leadership is clearly one issue that public sector organisations have to realistically address if they are to survive and succeed in today's turbulent environment (UN, 2003). Public leadership has been considered as a distinct and specialized area of study given the complexity of the public environment (Ricard et.al, 2017). The public service, in particular, needs a corps of individuals who, while operating within the framework of the rule of law, are able to apply visionary leadership skills in tackling extraordinarily difficult challenges. They include the challenges associated with globalisation, state and public administration reform, the growing quest for popular participation, widening income disparities, religious conflict, ethnic diversity, and the rapid pace of technological change (UN, 2003).

In Ghana, the leadership of the MMDAs are expected to play critical roles in facilitating efficient service delivery, good governance and effective management of development interventions (Kendie & Mensah, 2008). Denis, Langley and Rouleau (2005) assert that leaders in the public sector face the challenge of generating sustainable decisions and strategies in a context of multiple or conflicting objectives. According to Puplampu (2010), corporate leadership in African countries including Ghana is an under-researched concept, thus, the

possible role of leadership as a tool for development both at the national and sub-national level of government is yet to receive the needed mainstream empirical attention.

Empirical Review

The empirical review was developed in line with the specific objectives of the study. The contributions of leadership behaviours and organisational climate on employees' innovative work behaviour have been acknowledged in literature.

Transformational leadership and employees innovative work behaviour

Based on a survey of 322 senior administrators in the cities of Barcelona, Copenhagen and Rotterdam, Lewis et al (2018) concluded that transformational leadership behaviour had a positive significant effect on innovation. Adding that transformational leadership emphasizes charisma, motivation of personnel and presenting inspiring visions as very important for achieving innovation and change. The study uses structural equation modelling to analyse the data, transformational leadership was measured based on a five items scale by Ricard et al (2017). The study used a 3 item self-rated innovation capacity measurement. Similarly, Li, Sajjad, Wang, Ali, Khaqan and Amina (2019) based on a survey of 281 multinational organisation employees in China, concluded that transformational leadership has a strong significant influence on employee's innovative behaviour. The analysis was conducted with the SPSS macro process. Transformational leadership was measured using 12-items of the Multifactor Leadership Questionnaire (MLQ).

Masood and Afsa (2016) also conducted a study on transformational leadership and innovative behaviour among nursing staff. Data was collected from 587 nurses and 164 doctors. The results showed that transformational leadership through psychological empowerment, knowledge sharing, and intrinsic motivation fosters nurse's innovative work behaviour. A cross-sectional design was employed in the study. Transformational leadership was measured with the MLQ 5x and innovative work behaviour based on the scale by De Jong and Den Hartog (2010). Agreeably, Contreras, Espinosal, Dornbeger and Acosta (2017), also examined the effect leadership on employees' IWB among a total of 267 Colombian workers from different kind of companies. Structural equation modelling and hierarchical regression analyses were used for the analyses. The study concluded that there is a direct and positive effect of transformational leadership on IWB. The form 5X (MLQ) was used to measure transformational leadership (20 items), whiles IWB was measured with the scale developed by Janssen (2000).

However, Naqvi, Ullah and Javed (2017) found no direct significant association between transformational leadership and employees' IWB. The study's sample consisted of 325 bank employees and their supervisors in five big cities of Pakistan. The 5X (MLQ) was used to measure transformational leadership and IWB using the scale of Janssen (2000). Structural Equation Modelling was used for the study, the path analysis was tested using IBM AMOS. Likewise, a study of 480 information technology professional working in various IT companies across India by Pradhan (2015) revealed a positive relationship between transformational

leadership and job outcomes variables except innovative work behaviour. Software tools like SPSS, AMOS and WARP PLS were used to analyse the data.

Turunc, Celik, Tabak and Kabak (2010) also came to the conclusion that transformational leadership behaviours have no direct influence on employees' innovative behaviour. The study was based on a respondent total of 120 finance sector workers in Ankara. Transformational leadership was measured with a Likert like scale of 5 items developed by Podsakoff (1990,1996). The scale of Scott and Bruce was used to measure the tendency of employees' behaviour. The study of Kim and Yoon (2015) found a contradictory result. Kim and Yoon (ibid) sought to examine how senior managers' transformational leadership associated with employees' perception regarding a culture of innovation in the context of public management. The study was based on a survey of 1,567 employees in the Seoul Metropolitan Government and found that the degree to which an employee perceives senior managers' transformational leadership is positively related to the degree to which the employee perceives a culture of innovation.

Contextual factors are very important and affect the way transformational leader leads employees to be more innovative (Reuvers et al., 2008). It is therefore imperative to test its application within the Ghanaian public sector context. The study hypothesizes that:

H1a: Transformational leadership style has a positive effect on Innovative work behaviour.

Transactional leadership and employees' innovative work behaviour

The relationship between transactional leadership and innovative work behaviours of employees is not conclusive. Because of the nature of transactional leadership, some studies reveal that it is a barrier to innovation. The study of Lewis et al (2018) on leadership and self-rated innovation capacity among the 322 administrators also concluded that there was no significant effect of transactional leadership on innovation capacity. Again, Rank, Nelson, Allen and Xu (2008) examined the relationship between supervisors' leadership behaviours and subordinate's innovative behaviour. Based on a field survey data (161) collected in research and development, marketing and human resources departments of several German companies, the study revealed that active corrective transactional leadership negatively predicted innovative behaviour of employees.

Also, Contreras et al. (2017), also examined the effect of leadership on employees' IWB, mediating the role of organisational climate among a total of 267 Colombian workers from different kind of companies. Structural equation modelling and hierarchical regression analyses were used for the analyses. In contrast to the hypothesis stated in the study, a positive significant effect of transactional leadership on IWB was concluded based on the results. The study was a cross-sectional survey. Xie et.al (2018) also concluded that transactional leadership style positively correlates with innovation atmosphere. The study was an online survey based on 294 respondents in China. The study of Kim and Yoon (2015) concluded that supervisor's transactional leadership behaviour is key for innovation in the public sector. Tichy and De Vanna (1990) postulated that

Supervisors' transactional leadership may influence organisational change, reforms, and a culture of innovation in government.

Some studies have demonstrated that transactional leadership is suitable when the goal is to instil a culture of innovation (Golla & Johnson, 2013). An investigation by Faraz et al (2018) also indicates that transactional leadership behaviour has a positive significant effect on employees' innovative work behaviour. The study was based on data collected from 260 middle managers from the power sector of Pakistan. The study was based on the full range theory of leadership and the expectancy theory. In addition, Naqvi et al (2017) found a direct significant positive association between transactional leadership and employees' IWB. The study's sample consisted of 325 bank employees and their supervisors in five big cities of Pakistan. The 5X (MLQ) was used to measure transformational leadership and IWB using the scale of Janssen (2000). Thus, the study hypothesised that: *H1b: Transactional leadership style has a positive effect on innovative work behaviour*

Altruistic leadership behaviour and employees' innovative work behaviour

Altruistic leadership behaviour has been linked with employee's innovative behaviour. When employees are motivated by prosocial behaviours, they go beyond their responsibilities, improve their productivity and performance (Grant, 2008) and stimulate their creativity (Grant & Berry, 2011). Consequently, they are inclined to create new and useful ideas that may be positive for others (Grant and Berry, 2011). A study conducted by Mallen, Dominguez Escrig, Lapiedra and Chiva (2019) on leaders' humility, altruism and innovation among Spanish

companies. The study was based on a total of 568 valid questionnaires obtained from 284 different companies. The study concluded that altruism had a positive significant effect on innovation within the companies. Altruism was measured through the scale of Podsakoff et al. (1990).

Additionally, Salas-vallina, Ferrer-franco and Guerrero (2018) investigated the influences of altruistic leadership on innovative work behaviour among Spanish public hospitals. The study was a cross-sectional survey based on 324 nurses in public hospitals. The study used structural equation modelling to test the hypothesis. The results showed that altruistic leadership has a direct effect on employees' innovative work behaviour. Similarly, Dominguez Escrig et al (2016), found that altruistic leader behaviour has positive significant effect on radical innovation. However, Ricard et al (2017) found a positive effect of altruistic leadership behaviour on self-rated innovation capacity of public sector managers. Thus, the study hypothesised:

H1c: Altruistic leadership style has a positive effect on Innovative work behaviour

Entrepreneurial leadership and employees' innovative work behaviour

Entrepreneurial leadership behaviours have been touted as a key to thrive in the ever-changing public-sector environment (Lewis et al., 2018). Bagheri and Akbari (2018) conducted a cross-sectional study of 273 nurses in Iran. The purpose of the study was to assess the impact of entrepreneurial leadership on nurses' innovation Behaviour. Nurses' IWB was measured using the questionnaire developed by De Jong and Den Hartog (2010). Renko et al.'s (2015) entrepreneurial leadership questionnaire was also employed to measure the entrepreneurial leader

behaviour of nurse supervisors. The results indicated that entrepreneurial leadership had a significant positive effect on nurses IWB. This indicates the impact of a supervisor's entrepreneurial behaviour on the subordinates. Lewis et al (ibid) confirmed this by indicating that entrepreneurial leadership behaviours have a positive impact on the capacity to innovate.

Entrepreneurial leadership improves innovation by developing an inspiring entrepreneurial vision (Guo, 2009; Karol, 2015). To achieve the vision, entrepreneurial leaders improve employees' attitudes toward and self-efficacy in creating novel ideas and direct them to implement new ideas (Gupta, MacMillan, & Surie, 2004; Kang et al., 2015; Kim et al., 2017; Leitch et al., 2013; Renko et al., 2015). Such leaders also create an environment and culture in the organisation that encourage and support employees to face the challenges of engaging in innovation efforts (Karol, 2015). Also, Miao and Schwarz (2018) examined how entrepreneurial leadership enhance innovative behaviour within the public sector. The study employed the psychological empowerment theory. Based on three-wave data from 281 Chinese civil servants and their 59 department heads, entrepreneurial leadership is found to positively influence subordinates' innovative behaviour by enhancing two dimensions of psychological empowerment: meaning and impact. Thus, this study hypothesised:

H1d: Entrepreneurial style has a positive effect on Innovative work behaviour

Network governance leadership

The role of networks and multi-actor collaboration has been emphasized as key to ensuring generation of innovative solutions to social problem (Owusu &

Appiah, 2014). As postulated by Imperial et al (2016), the complexity and interconnectedness of the modern world necessitate networked approaches to addressing societal problems. Leadership is critical to develop and sustain network governance long enough to successfully work across political and organisational boundaries to achieve shared goals (Huxham & Vangen 2000; Ansell & Gash 2008). Lewis et al (2018) in the study of leadership and self-rated innovation capacity in three European cities concluded that the network governance leadership has the strongest significant effect on innovation within the public sector. Network governance leadership was measured based on the scale of Ricard et al (2017). Erickson and Jacoby (2003) point out that networks are not only critical for accessing knowledge to create in-house innovations or for the diffusion of innovation but they are equally important for learning about innovative work practices that other organisations have developed or adopted.

In addition, Speek (2017) explored the effect of network governance on the facilitation of urban innovation in Holland. The study was based on an interview with forty-four (44) City Deal officials. The study concluded that network governance is key to solve problems with the limited resource set available. Haug (2018) also added that networks facilitate entrepreneurship, but without an integrator and well-functioning administrative superstructure, their ability to innovate could be compromised. Indicating that the role of leadership is key in network governance. Haug (ibid) investigated the relationship between innovation and network leadership. Three ICT-based municipal networks were studied in Norway in the periods 2005/6 and 2017, using Adizes' PAIE model (1980) to

examine leadership roles in each network. The study leaders play various roles to ensure innovation in networks.

Correspondingly, according to Klijn and Koppenjan (2016) multi-actor arrangements are seen to be more effective than hierarchy or markets in tackling complex societal problems—so-called wicked issues. Public value is about creating outputs and outcomes in the interest of the common good, including the clients, citizens and stakeholders which the policy affects. Doing this requires that the voices and expectations of affected groups feed into policy deliberations in a meaningful way (Sørensen & Torfing 2018). The study of Namara, Karyeija and Mubangizi (2015) however found no association between network governance and staff capacity to be innovative. The purpose of the study was to assess network governance and its contribution to the capacity of local governments (LGs) to deliver local economic development (LED) in Uganda.

This study thus hypothesised that;

H1e: Network governance leadership has a positive effect on innovative work behaviour

Leadership behaviour, organisational climate and innovative work behaviour

Lewin et al. (1939) argued that different leadership behaviours create different climates which in turn give rise to varying employee reactions and behaviours. The role of leadership in the formulation and modification of the climate is considered vital. The organisation creates its own climate with the help of leader's behaviour (Schien, 1990). In the study of Conteras et al (2017), it was concluded that both transformational and transactional leadership behaviours had a

positive influence on organisational climate for innovation. Organisational climate was measured based on the scale of Scott and Bruce (1994). Novac and Bratanov (2014) investigated the impact of leadership style on organisational climate in a public entity in Romania. The study added that specific leaders' behaviour has a positive effect on organisational climate.

The creation of an appropriate organisational climate is the main responsibility of leadership within any organisation (Amabile et al., 2004). Similarly, Isaksen (2007) proposes that leaders through their behaviours influence employees' perceptions of climate for innovation and encouragement of change and creativity. Thus, it can be concluded that the organisational climate is a direct result of leadership in the organisation (Gendi, 2017). Zhang et al (2018) investigated the role of transformational leadership in shaping employees' innovative behaviour by analysing the mediating effect of innovation climate and the cross-level moderating effect of innovativeness as a project requirement. A questionnaire survey was conducted with 300 construction industry professionals in China and 251 valid replies were received for the study. Data collected by the questionnaire were analysed using the method of hierarchical linear modelling (HLM). The results showed that transformational leaders could nurture a mutual climate for innovation to motivate employees' innovative behaviours.

Scott and Bruce (1994) integrated a number of streams of research on the antecedents of innovation to develop and test a model of individual innovative behaviour. The study setting was a research and development subunit. The study examined the effect of leadership behaviour on employees' innovative work

behaviour based on a mediating effect of organisational climate. Organisational climate was measured independently in terms of support for innovation and resource supply. The model explained approximately 37 percent of the variance in innovative behaviour. The results indicated that support for innovation has a positive effect on innovative behaviour whiles resource supply had a negative effect. Though leadership had a positive effect on both dimensions of organisational climate and innovative behaviour. The author concluded that this may be an indication that resource supply variable is different from support for innovation. Indicating the need for further studies on the variable.

Also, Naguib and Naem (2018), investigated the mediating role of organisational climate on the link between transformational leadership and innovation. Transformational leadership was measured by the MLQ-form 5X, organisational climate was measured by the scale developed by Scott and Bruce (1994). Organisational innovation was measured by (innovation inputs, process and outcomes), the measures developed by Andrew and Haanaes (2009). The study was conducted using 103 Egyptians corporations. The study concluded that both top management support and resource supply mediate the relationship between transformational leadership and innovation. Similarly, Park and Jo (2017) concluded that organisational climate had a positive effect on innovative behaviour in the Korean government sector. The findings were based on a survey of 1,011 respondents using SEM.

Again, Kim and Yoon (2015) sought to examine how senior managers' transformational leadership and supervisors' transactional leadership associated

with employees' perception regarding a culture of innovation through the mediating role of organisational climate. The study was based on a survey of 1,567 employees in the Seoul Metropolitan Government, the study found that climate is climate—through enhancing the recognition of employee creativity, the flexibility to change, and resources for innovation—is significantly associated with employees' perceptions of a culture of innovation. Concluding that, the degree to which an employee perceives resources for innovation is positively related to the degree to which the employee perceives a culture of innovation at his or her work unit. Based on the empirical review, the following hypotheses are stated in this study;

H2: Organisational climate has a positive effect on Innovative work behaviour

H3a: Organisational Climate mediates the nexus of transformational leadership and innovative work behaviour

H3b: Organisational Climate mediates the nexus of transactional and innovative work behaviour

H3c: Organisational Climate mediates the nexus of altruistic leadership and innovative work behaviour

H3d: Organisational Climate mediates the nexus of Entrepreneurial leadership and innovative work behaviour

H3e: Organisational Climate mediates the nexus of network governance leadership and innovative work behaviour.

Lessons learnt and issues arising from the review of empirical studies

Most of the studies were carried out in Asia and Europe raising questions regarding the applicability of their findings to developing African economies such as Ghana. In line with that, the findings of the studies vary according to sector and context. The dominant study design employed was the survey method, implemented using self-administered questionnaires. The reason cited was to arrive at conclusions applicable to fairly representative proportions of the population involved in each case. Innovative work behaviour measures were mainly based on employees' self-assessment of their work behaviours. The role of individual climate dimensions has not been fully assessed, even though support for innovation differs from resource supply. Indicating the need for further research on the concept. The review also indicated that cross-sectional and quantitative designs was mainly used in the study, with a simple random sampling.

Conceptual framework

The conceptual framework of this study is partly based on the pioneering work of Ricard et al (2017) and Lewis et al (2018) on leadership behaviours; employee's innovative behaviour based on Janssen (2000); and organisational climate (Resource supply) by Scott and Bruce (1994). The study examines how organisational climate, conceptualised as employees' perception of supply of resource for innovation, mediates the relationship between leadership behaviours and employees' innovative behaviour in the public sector. The framework is shown in figure 1. The indicators for transformational leadership include; Idealized influence (LI1-LI3), inspirational motivation (LM1-LM3), intellectual stimulation

(LS1-LS3), individualized consideration (LC1-LC3). Transactional leadership was operationalised in terms of; Contingent reward (T1-T3) and management by exception (T4-T6). Whiles the indicators of Altruistic leadership included; Interest in people (LA1), helping people (LA2), self-sacrificing (LA3) and going beyond duty call (LA4).

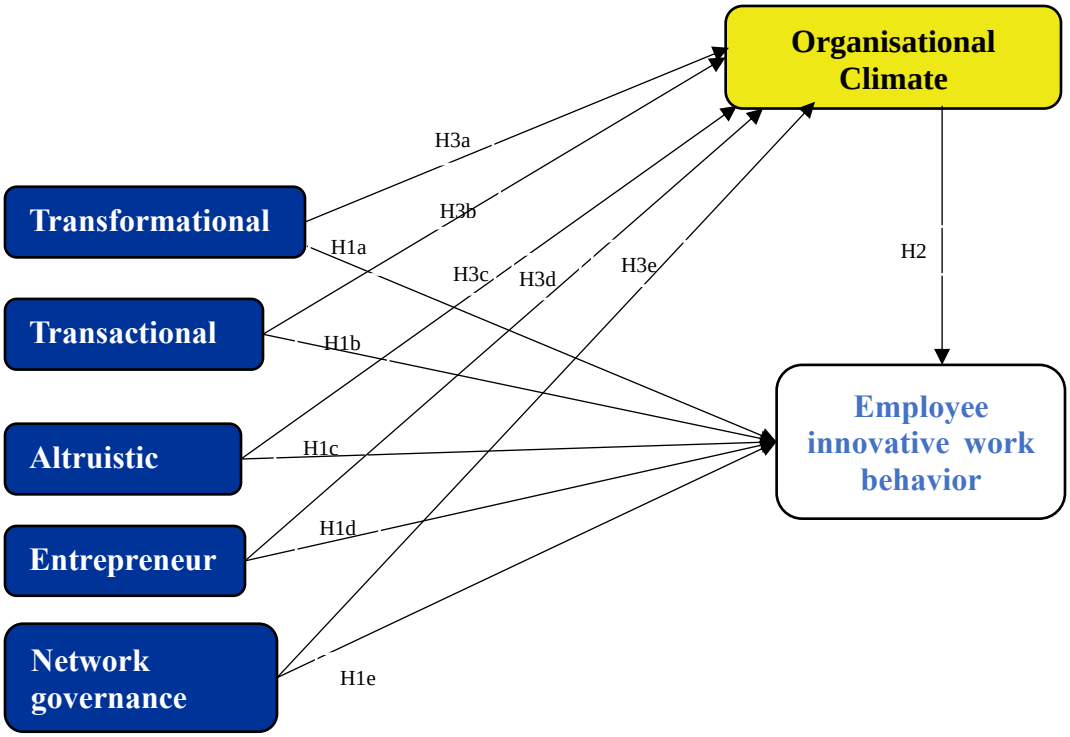

Figure 1: Conceptual framework

Source: Researcher's construct, 2019

Entrepreneurial leadership was conceptualised as; Open to new ideas (LE1), taking initiatives (LE2), willingness to risk mistakes (LE3) and mobilizing resources (LE4). In addition to this, Network governance leadership was conceptualised as; Maintaining networks (LN1 & LN5), encouraging new contacts development (LN2, LN4 & LN6), working together (LN3) and being linking pin (LN7). The conceptualisation of innovative work behaviour was based on the three

dimensions of idea generation (BE1-BE3), idea promotion (BE4-BE6) and idea realisation (BE7-BE9). Organisational climate was conceptualised as; Adequate time (C1 & C5), adequate resources (C2, C3 & C4), freedom to pursue ideas (C5) and provision of personnel (C6).

The study proposes that leadership behaviour has both a direct and indirect positive influence on innovative work behaviour and a direct positive influence on organisational climate. The study also proposes that the organisational climate has a positive influence on innovative work behaviour based on the assertion of prior scholars. Innovative behaviour is measured as a unidimensional variable in this study, based on the work of other studies (Scott & Bruce, 1994; Naguib & Naem, 2018). The resource supply dimension of innovation climate as proposed by Scott and Bruce (2004) was used in this study, due to the fact that support for innovation may only influence innovative behaviour once the need for some threshold level of resources is met. The five theoretical dimensions of leadership were adopted to examine the influence of leadership from multiple perspectives.

Chapter summary

The chapter reviewed the literature on theoretical, conceptual and empirical issues relating to leadership behaviour, employees' innovative work behaviour and organisational climate as captured in prior studies. Important issues and lessons from the review informed the conceptual framework of the study. The review will further prove beneficial in the methodology, analyses, presentation of findings, discussions, conclusions and recommendations. The next chapter presents the methodology used to carry out this study.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methodology used to carry out this study. Research methodology articulates how the researcher went about his/her study and the logic behind each method used. The rationale is to help the researcher to solve the research problem systematically.

Research Paradigm

Every researcher is guided through the research procedure by certain beliefs, values and a view of the world (Adjei, 2015). According to Guba (1990), this is mostly referred to as paradigms or philosophical assumptions which precede the commencement of a study. Saunders, Lewis and Thornhill (2016) add that the term research philosophy refers to a system of beliefs and assumptions about the development of knowledge. The types of beliefs held by individual researchers based on these factors will often lead to embracing a strong qualitative, quantitative, or mixed-methods approach in their research (Creswell & Creswell, 2018). Saunders et al (2016) identified five major philosophies that have shaped social science research over the years: positivism, critical realism, interpretivism, postmodernism and pragmatism.

This study adopts the positivist approach. According to Saunders et al (2016), positivism relates to the philosophical system that embraces issues that can be scientifically verified and hence provides a basis for generalisation. This means that positivists focus on procedures that lead to the generation of facts uninfluenced

by human interpretation. It is based on the use existing theory to develop hypotheses. These hypotheses would be tested and confirmed, in whole or part, or refuted, leading to the further development of theory which then may be tested by further research (Creswell, 2009; Saunders et al, 2016). According to Saunders et al. (2016), and Sekaran and Bougie (2016), positivism give room for objective reality and has the goal of universal truth that deals with human practices in the field of management sciences. It is an appropriate guide for this study given that based on the theories of path-goal and social exchange, hypotheses will be tested and relationships established.

Research Approach

According to Creswell and Creswell (2016), there are three approaches to research; (a) qualitative, (b) quantitative, and (c) mixed methods. Saunders et al. (2016) provide three significant differences between quantitative and qualitative research methods. The first difference advanced by the authors is that the quantitative research method permits the researcher to isolate and define variables and link them together to frame research hypotheses. However, this is not the case with respect to the qualitative research method. The next difference asserted by the authors is that the quantitative research method allows for objectivity with respect to the processes involved in the data collection and analysis. Contrarily, in the qualitative research method, subjectivity is often introduced during data collection procedures and analysis. Finally, while the quantitative research method allows for the use of larger samples and the generalisation of the sample results to the entire

population, the purpose of the qualitative research method is not for the generalisation of the sample results to the entire population.

This study, therefore, employed the quantitative research approach based on the nature of the study purpose under consideration, specific objectives, hypotheses and the nature of the primary data to be collected and analysed. Creswell (2014) asserted that quantitative approach deals with explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics). Furthermore, the quantitative research method would grant the researcher an opportunity to generalise the results of the sample to the population from which the sample was collected.

Research Design

Wyk (2010) explains that "research design is the overall plan for connecting the conceptual research problems to the pertinent empirical research. According to Creswell and Creswell (2018), there are three major forms of design for quantitative studies; experimental (scientific experiments), non-experimental (such as surveys) and longitudinal designs. The nature of this study is non-experimental since it allows for comparison of relationships between variables. In experimental research strategy, one of the major shortcomings is the manipulation of the variables (Creswell, 2014; Sekaran & Bougie, 2016). Correlational design is a form of non-experimental research design in which investigators use the correlational statistic to describe and measure the degree of association (or relationship) between two or more variables or sets of scores (Creswell, 2012). These designs have been elaborated into more complex relationships among variables found in techniques of

structural equation modelling, hierarchical linear modelling, and logistic regression (Creswell & Creswell, 2016).

In line with the discussion, the correlational design was adopted for this study. The cross-sectional survey time horizon strategy was employed for the current study. Furthermore, Neuman (2014) and Saunders et al. (2016) asserted that a cross-sectional survey involves the collection of data on many units during the same period in order to collect qualitative or quantitative data related to variables, in an effort to determine associations between the variables after the data have been analysed.

Study Area

In Ghana, the local government consists of the Metropolitan, Municipal and District Assembly. The key factor which determines an Assembly to be a Metropolitan is the population size and settlement characteristics of the area. The Local Government Act 462 of 1993 stipulates that a metropolis is a local government unit or area with a minimum population of 250,000 people. There are six metropolitan assemblies i.e. Kumasi, Accra, Tema, Sekondi-Takoradi, Tamale and the Cape Coast in Ghana. This study centres on all six metropolitan assemblies in Ghana, this will allow the findings of the study to be applied nationally. Section 38 of the Local Government Act 462 of 1993 (First Schedule) establishes sixteen (16) Departments for Metropolitan Assemblies i.e. the Central Administration, Finance, Education, Youth and Sports, Health, Agriculture, Physical Planning, Social Welfare and Community Development, Natural Resources Conservation Dept Forestry Game & Wildlife Division, Works, Industry And Trade, Disaster

Prevention and Management, Transport, Urban Roads, Waste Management, Budget and Rating and Legal Department (A Guide To District Assemblies In Ghana, 2016).

The Metropolitan Assembly has three main functions namely, executive, legislative and deliberative. It exercises political and administrative authority and provides guidance, gives direction, supervise all other administrative authorities in the district and perform such functions as may be provided under any other enactment including local economic development, social protection and other emerging roles (Section 10 (3) of the Local Government Act, 1993 (Act 462)). They represent a nexus of structures to deal with societal problems. In Ghana, the various metropolises are places where major societal challenges arise because so much of the populace lives and works in cities and these are places where a lot of innovation occurs because the needs are so pressing. The choice of metropolitan assemblies for this study is based on the argument that they are the level of government that is closest to the people and have ongoing interactions with them, making them a likely site for innovation (Lewis et al., 2018).

Study population

According to Leedy and Ormrod, (2010) the population of a study can be seen as the target group about which the researcher is interested in gaining information and drawing conclusions. The population for this consists of the staff of all Metropolitan Assemblies in Ghana. Data acquired from the human resource managers of the six metropolitan assemblies indicates that the total population for

this study is 4793. Made up of both staff paid from internally generated funds and by the government of Ghana.

Sample and Sampling Procedure

According to Malhotra, Birks and Wills (2013) sampling is the process of selecting a representative few or unit from a larger group or population, which is used as a basis of estimating certain characteristics or elements about the group or population. The reason usually advanced by researchers for the use of sample surveys instead of a census is that complete coverage of the entire population is not always advantageous as compared to the sample when dealing with a large population (Saunders et al., 2016). Sekaran and Bougie (2016) advanced that sampling can broadly be categorised into two main designs, namely, probability sampling and non-probability sampling. Whereas probability sampling design permits each element of the population to have a known and non-zero chance of being selected to be included in the sample, non-probability sampling design does not allow each of the elements of the population to have a known chance of being selected (Sekaran & Bougie, 2016).

The simple random technique of probability sampling was adopted for this study. As opined by Ofori and Dampson (2011), probability sampling warrants drawing of a representative sample from the target population and also making statistical inferences from data. This fits best for the quantitative research approach (Saunders et al., 2016). This technique was selected because it grants unbiasedness in the selection of any of the study units. To ensure that there were no biases in the

random sampling, the Microsoft Excel random number generation tool was utilised to generate a specified set of numbers for the selection of respondents randomly.

Kariuki, Wanjau and Gakure (2011) recommended that researchers should resort to the determination of an optimum sample size for their studies. The optimum sample size is often determined either by direct calculation using appropriate statistical formulas or by reference to tables, which set out recommended sample sizes for a given population (Sekaran & Bougie, 2016). The sample size of the study was three hundred and fifty-seven (357) staff. This was determined using Krejcie and morgan (1970) sample determination table, attached in this work as Appendix D. Based on a sample size of 357, a proportionate representation was calculated for each metropolitan assembly. The population and sample distribution among the six metropolitan assemblies is indicated in Table 1.

Table 1: Population and Sample distribution in the Metropolitan Assemblies

Metropolitan Assembly	Staff strength	Sample
Accra	1944	145
Tema	744	55
Kumasi	1032	77
Sekondi-Takoradi	579	43
Cape Coast	244	18
Tamale	250	19
Total	**4793**	**357**

Source: Human Resource Departments, 2019

The study recorded an 88% response rate because 314 staff responded to the questionnaire across the country. Only 12% (43 respondents) failed to return the instrument. The success is attributed to direct contact and follows up between research assistants and the respondents.

Measurement of variables

The variables used in this study were measured relying on previous empirical literature is areas of leadership and innovative behaviour. This allowed for the design of an instrument based on validated scales. Leadership behaviours in this study were measured using various sources. The concept of five leadership behaviours for innovation was adopted from Ricard et al. (2017) and Lewis et al (2018), however the measures of the individual leadership behaviours were adopted from scales with confirmed reliability. Leadership behaviours were measured in terms of employee's perception of their supervisor's behaviour. This was done in conformance with studies conducted in the area of leadership (Contreras et al, 2017; Li et al, 2019). Organisational climate and innovative behaviour were also measured in terms of employees' perception. This will guard against biases related to supervisor's and other colleagues' assessment of IWB (Radaelli et al., 2014; Chen et al., 2016).

Transformational and transactional leadership was measured using the Multifactor Leadership Questionnaire (MLQ) developed by (Avolio & Bass, 2004). Four dimensions of transformational leadership were included: idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, twelve (12) items were selected in line with the study of (Li et al, 2019). For transactional leadership. Six (6) items were selected representing the two dimensions of contingent reward and management by exception. The scale is based on employees' perception of their supervisor's behaviour. The psychometric properties of the MQL have been demonstrated by several studies. Li et al (ibid)

reported a cumulative Cronbach alpha of 0.88, Contreras et al (2017) reported a cumulative Cronbach's alpha of 0.84.

Altruistic leadership behaviour was adapted from the scale of Dominguez Escrig et al (2016), made up of four (4)-items measuring altruism, with the reliability of 0.799. Sample items include; My supervisor puts the interest of the people above their own; Does all he can to help people; Sacrifice his own interest to meet the needs of others; Goes beyond the call of duty to help others. Entrepreneurial leadership and Network governance leadership was measured based on the scale developed by Tummers and Knies (2016). The scale contained seven (7) items measuring network governance leadership. The statements measured the extent to which supervisors encourage; maintaining networks with other organisations; encourage development of new contacts; work together with people in the network, and encourage collaborating and being "linking pin" between different actors. Ricard et al (ibid) reported a Cronbach's alpha of 0.75 and 0.79 for network governance and entrepreneurial leadership respectively.

Innovative work behaviour was measured using the validated scale of Janssen (2000) with reported reliability of 0.89 (kheng et al. 2013). The scale contains nine (9) statements with three each measuring the three dimensions of IWB proposed by Scott and Bruce (1994); Idea generation; idea promotion; and idea realisation. In this study, the resource supply dimension of the organisational climate scale by Scott and Bruce (1994) was adopted. The scale is made up of six (6) items that assess the degree to which respondents believed resources were adequate for accomplishing the task of innovation. The scale indicates whether

there is adequate time, people, and funds to support developing and implementing creative ideas in the organisation. Scott and Bruce (ibid) reported the reliability of 0.77.

Data Collection Instrument

A self-administered questionnaire was the instrument used in collecting for this study. Sekaran and Bougie (2016) postulated that greater uniformity, consistency and objectivity are guaranteed when a questionnaire is used for data collection. In addition, privacy and convenience of respondents can be accomplished during questionnaire completion, thereby ensuring greater anonymity (Neelankavil, 2015). Close-ended questions were used to elicit responses needed to answer the research questions and achieve the objectives set for this study. The closed-ended questions require the respondent to choose from among a given set of responses and require the respondent to examine each possible response independent of the other choice. The use of a self-administered questionnaire is justified since based on the busy nature of the respondents; they could best provide responses in a non-supervised way.

The proposed questionnaire for the study comprised four (4) sections – A, B, C and D harbouring 55 items. Section A was used to collect demographic information of the respondents, as such variables were measured in a categorical manner. Section B, C and D were used to capture information on Leadership behaviour, organisational climate and innovative work behaviour respectively. All items in section B, C and D were measured on a seven-point Likert-like scale, with one indicating least level of agreement with the statements and seven indicating

highest levels of agreement. The Likert-scale facilitates the measuring of attitudes of respondents through the combination of scores of those respondents on different items into a single index (Likert, 1932). Likert scales are scales, generally, used in measuring people's attitudes, opinions and beliefs (Yates, 2004).

Pre-Testing

Zikmund (2012) defines the pre-testing process as "a collective term for any small-scale exploratory research technique that uses sampling but does not apply rigorous standards". Pallant (2016) posits that pre-tests are required ahead of the main survey. This process assists in ensuring that instructions, questions and scale items are clear. They further help potential respondents to comprehend the questions and respond appropriately. Based on the approval of the questionnaire by the department, the study engaged in pilot testing on twenty-five (25) staff of the Komenda Edina Eguafo Abirem (KEEA) Municipal (Elmina). This sample size was deemed appropriate as it conforms to Saunders et al.'s (2016) minimum criteria of 10 for pilot studies by students. The only complaint that emanated from the pilot study was the length of the questionnaire's items. Based on this, the statements were summarised and preamble introduced to encourage answering.

Validity and Reliability

In order to ensure content validity of the instrument, the study ensured proper definition measuring items, scale scrutiny by experts and scale pre-testing. These were in line with the principles of McDaniel and Gates (1996). Reliability and validity are two key components to be considered when evaluating a particular instrument. The level of the reliability of an instrument is measured by Cronbach's

Alpha value (Saunders & Lewis, 2012). As posited by Pallant (2016), Cronbach's alpha coefficient for variables are generated to validate the reliability of the instrument. Pallant (ibid) also indicates that scales with a Cronbach's alpha coefficient of 0.70 and above are considered reliable. However, studies such as Boohene, Agyapong and Asomaning (2012) and Mahmoud (2010) support coefficient of 0.5. The results of the pre-test were used to assess the reliability of the instrument. The result is presented in Table 2.

Table 2: Questionnaire items and their reliability coefficients

Variable	Questionnaire Items	Sample	Cronbach's Alpha
Altruistic leadership	4	25	0.804
Network governance leadership	7	25	0.776
Entrepreneurial leadership	4	25	0.604
Transactional leadership	6	25	0.702
Transformational leadership	12	25	0.908
Organisational Climate	6	25	0.749
Innovative work behaviour	9	25	0.818

Source: Field survey (2019)

Based on the criteria of Pallant (2016) and Boohene et al (2012), all items showed a high level of reliability.

Data Collection Procedure

According to Sekaran and Bougie (2016), there are different ways by which data can be collected through a questionnaire. The authors indicated that the method could be through the internet, post and hand delivery and collection of questionnaires. For this study, the hand delivery and collection of the questionnaire

method was employed. This method was employed because of the difficulty in getting most of the respondents to respond to a questionnaire through the internet or post for this type of study in the country. The method chosen allowed the researcher to visit the premises of all the metropolitan assemblies in Ghana and hand-delivered the questionnaire to the respondents. Also, the hand delivery and collection technique of data collection also helped the researcher to inquire from the respondents the time they will use to complete the questionnaire and the convenient time for the researcher to collect the questionnaire.

Furthermore, the collection of data took place in the second quarter of 2019. The premises of the respondents were visited during the working hours. Introductory letters were submitted to the management of each metropolitan assembly, upon approval of the letters, the questionnaires were administered to the staff based on the permission of the units and departmental heads. Even though self-administered surveys come with some disadvantages, they were minimised where possible and did not outweigh the benefits provided by high response rates in a short period of time.

Data Analysis

The statistical tools employed for this study were Statistical Package for Services Solution (SPSS) version 24 and SmartPLS version 3. The SPSS was employed for descriptive analysis and the Smart PLS was employed for structural equation modelling based on the hypotheses of this study. The descriptive statistics (frequencies and percentages) were employed to determine the characteristics of the respondents. Each of the research objectives was analysed as follows:

1. Assess the influence of dimensions of leadership behaviour on innovative work behaviour of staff in the metropoles. Structural equation modelling was used to analyse this objective.
2. Assess the effect of organisational climate on innovative work behaviour of staff in the metropoles. This objective was analysed using structural equation modelling.
3. Examine the mediating role of organisational climate on leadership behaviour and innovative work behaviour nexus among the staff of the metropoles. Structural equation modelling was used for this objective.

Structural Equation Modelling

Structural equation modelling (SEM) is a second-generation statistical technique that "enables researchers to incorporate unobservable variables measured indirectly by indicator variables. They also facilitate accounting for measurement error in observed variables" (Chin, 1998 as cited in Hair, Jr., Hult, Ringle & Sarstedt, 2014:3). Partial Least Squares-Structural Equation Modelling (PLS-SEM) uses available data to estimate the nexuses of the path in the model to minimise the residual variance of the endogenous constructs. SEM is made up of two key elements; measurement equations (by confirmatory factor analysis) and structural equations (by path analysis). Whereas confirmatory factor analysis models (CFA) are used for construct validation and scale refinement, path analysis is used to display the relationships that exist among study constructs.

PLS-SEM estimates path model nexuses that maximize the R^2 values of the endogenous constructs (Hair et al., 2014). It is also useful when dealing with

complex models and small sample sizes (Hair et al., 2014; Rezaei & Ghodsi, 2014; Rezaei, 2015; Shahijan, Rezaei, Preece & Ismail, 2014). PLS-SEM is also more appropriate where theory is less developed (Ravand & Baghaei, 2016; Rönkkö & Evermann, 2013). According to Hair et al. (2014), there are two forms of measurement scale in structural equation modelling: Formative or Reflective. Whereas in formative measurement scale it is the indicators that cause the constructs of the study, in a reflective measurement scale it is the constructs that cause indicators of the study. The current study employed reflective measurement scale because all the indicators were caused by the constructs.

Furthermore, Jeon (2015) has itemised a number of benefits SEM has over other models such as regression. These benefits are: Firstly, SEM uses "latent variables" which allows multiple indicators to capture constructs validly and reliably. Secondly, SEM makes the causal equation model between latent variables clearer as compared to regression. Thirdly, SEM allows one or more independent variables to be regressed on one or more dependent variable. Fourthly, In SEM, a researcher can show the direct effect, indirect effect, and total effect because several exogenous variables and endogenous variables can be estimated simultaneously. PLS is quite robust with regard to inadequacies like skewness, multicollinearity of indicators and misspecification of the structural model (Cassel et al, 1999). In SEM, confirmatory factor analysis, correlation analysis, and regression analysis can be conducted at one time in a model. In line with the benefits above associated with SEM, this study relied on PLS-SEM to test the various hypotheses.

Mediation Procedure in SEM

According to Hair, Hult, Ringle and Sarstedt (2017), a mediating effect is created when a third variable or construct intervenes between two other related constructs “Mediator variables absorb part of the relationship between an exogenous and an endogenous construct in the” Partial least squares path model. Thus, mediators reveal the "true" relationship between an exogenous and an endogenous construct. In this study, the mediating role of organisational climate is tested on the relationship between leadership behaviour (exogenous) and innovative work behaviour (endogenous). Hair et al. (2017) provide a systematic mediator analysis process in PLS-SEM, to solve the misapplication of Baron and Kenny’s procedure in the PLS-SEM field (Nitzl, Roldan & Cepeda, 2016; Carrión, Nitzl & Roldán, 2017).

The mediation effect tested for in this study is based on the procedure developed by Nitzl et al. (2016) to test mediation effects on PLS-SEM. The mediation analyses begin with testing the indirect effect (through the mediator) to assess the significance. Nitzl et al (ibid) propose that it is not necessary to conduct separate tests for direct and indirect paths by applying PLS-SEM. A significant indirect effect is the only prerequisite for establishing a mediation effect. The significance of the direct effect determines the type of effect and or mediation. According to Hair et al (2017) the current mediation literature discusses two different types of mediation, full and partial mediation. Partial mediation can be subdivided into complementary and competitive partial mediation.

Carrión et al (2017) posit that a full mediation occurs when a direct effect is not significant, whereas the indirect effect is significant. Indicating that effect of the exogenous variable on the endogenous variable is completely transmitted with the help of the mediating variable. In a complementary partial mediation, the direct effect and indirect effect point in the same (positive or negative) direction (Baron & Kenny, 1986). In a competitive partial mediation, the direct effect *and* indirect effect point in a different direction (Zhao, Lynch & Chen, 2010). There is no mediation when the indirect effect is not significant. The mediation process used in this study is summarised in figure 2.

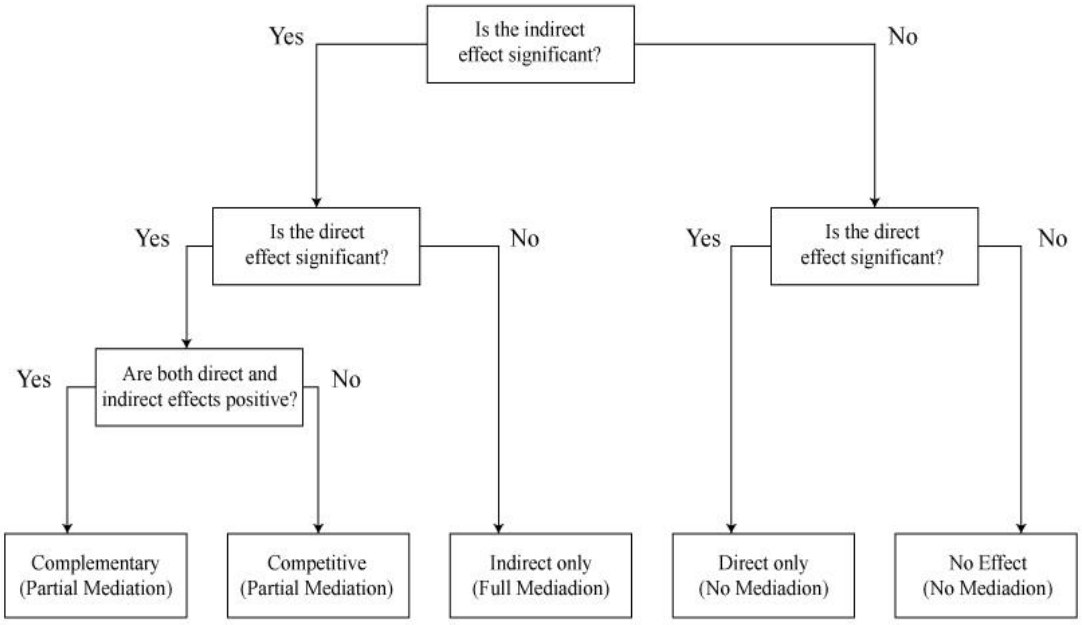

Figure 2: Mediator Analysis Procedure in PLS-SEM

Source: Hair, Jr., Hult, Ringle and Sarstedt (2017)

Validity and Reliability of the model

There are several criteria for assessing model structures. In general, a systematic application of the different criteria is carried out in a two-step process, (1) the assessment of the measurement model and (2) the assessment of the structural model.

1) Assessment of Measurement Models

Assessment of reflective measurement models includes composite reliability to evaluate internal consistency, individual indicator reliability, and average variance extracted (AVE) to evaluate convergent validity. In addition, the Fornell-Larcker criterion and cross loadings are used to assess discriminant validity (Hair et al, 2013).

Internal Consistency Reliability

It is a form of reliability used to judge the consistency of results across items on the same test. It determines whether the items measuring a construct are similar in their scores (i.e., if the correlations between the items are large) (Drolet & Morrison, 2001). The composite reliability is a more appropriate measure of internal consistency than the Cronbach's alpha (Rossiter, 2002). The composite reliability varies between 0 and 1, with higher values indicating higher levels of reliability. It is generally interpreted in the same way as Cronbach's alpha. Specifically, composite reliability values of 0.60 to 0. 70 are acceptable in exploratory research, while in more advanced stages of research, values between 0. 70 and 0.90 can be regarded as satisfactory (Nunally & Bernstein, 1994).

Convergent validity

Convergent validity is the extent to which multiple items to measure the same concept agree (MacKinnon, 2008). Anderson and Gerbing (1988) stated that convergent validity is established if all factor loadings for the items measuring the same construct are statistically significant. According to Hair et al. (2016) convergent validity could be accessed through factor loadings and the average variance extracted (AVE). Hair, Ringle, and Sarstedt, (2011) point out that to establish convergent validity, factor loadings must be 0.70 and above. An AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more error remains in the items than the variance explained by the construct.

Discriminant Validity

Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards. Thus, establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model (MacKinnon, 2008). The Heterotrait - Monotrait Ratio (HTMT) is a means of determining the discriminant validity of a PLS-SEM model. According to Henseler, Ringle & Sarstedt (2015), a latent construct has discriminant validity when its HTMT ratio is below 0.850. The Fornell-Larcker criterion is also an approach to assessing discriminant validity. It compares the square root of the AVE values with the latent variable correlations(Fornell and

Larcker, 1981). Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct. (Hair et al. 2013).

2) Assessment of the structural model

The first essential criterion for the assessment of the PLS-SEM is the coefficient of multiple determinations (R^2) for each endogenous construct. R-square (R^2) measures the explained variance of a latent variable relative to its total variance. Hair et al. (2014) advanced that a coefficient of determination (R^2) of 0.25, 0.5 and 0.75 are considered as weak, moderate and substantial respectively for structural models. The next step to assess the structural model comprises the evaluation of the regression coefficients between the validated latent variables. A regression coefficient magnitude indicates the strength of the relationship between two latent variables. Furthermore, regression coefficients should be significant at the 0.05 level, in order to determine the significance (Bradley & Tibshirani, 1993).

Finally, another assessment of the structural model involves the model's capability to predict. The predictive relevance of the structural model is assessed by the Stone-Geisser's Q^2 statistic (Stone, 1974), In the structural model, Q^2 values larger than zero for a certain reflective endogenous latent variable indicate the path model's predictive relevance for this particular construct. As a relative measure of predictive relevance, values of 0.02, 0.15, and 0.35 indicate that an exogenous construct has a small, medium, or large predictive relevance for a certain endogenous construct. (Hair et al, 2016). It is also imperative to measure the impact of individual endogenous variables on the exogenous variable. This is achieved by assessing the effect size (f^2). As posited by Cohen (1988), f^2 values of 0.02, 0.15,

and 0.35, respectively, represent small, medium, and large effects of the exogenous latent variable.

Specifying the structural and measurement model

The section specifies the structure of the model of this study. It indicates the exogenous and the endogenous variables with the various indicators. The structural model is specified in figure 3. There are five exogenous variables and two endogenous variables in this study. The exogenous variables are; Entrepreneurial leadership (EL), Network governance leadership (NGL), Altruistic leadership (AL), Transactional leadership (TCL) and Transformational Leadership (TSL). The endogenous are; Organisational climate (ORG) and Innovative work behaviour (IWB). The latent variable Entrepreneurial leadership is measured by four indicators (*LE1, LE2, LE3 and LE4*). Network governance leadership is measured by seven indicators (*LN1, LN2, LN3, LN4, LN5, LN6 and LN7*). Altruistic leadership has four indicators (*LA1, LA2, LA3 and LA4*). Transactional leadership is measured with six items (*T1, T2, T3, T4, T5 and T6*).

Transformational leadership has the highest number of indicators, twelve (*LC1, LC2, LC3, LC4, LI1, LI2, LI3, LM1, LM2, LM3, LS1, LS2 and LS3*). Innovative work behaviour is measured with nine items (*BE1, BE2, BE3, BE4, BE5, BE6, BE7, BE8 and BE9*). The mediating variable, organisational climate, is measured with six items (*C1, C2, C3, C4, C5 and C6*). There are 11 paths hypotheses in the model (figure 3). The study proposes a positive link between EL and IWB and between EL and OG. Also, the study hypothesises a positive relationship between NG and IWB, NG and OG; AL and IWB, AL and OG;

TCL and IWB, TCL and OG; TSL and IWB and TSL and OG. The study also hypothesises a significant link between OG and IWB and creating an indirect effect between leadership behaviours and innovative work behaviour through organisational climate.

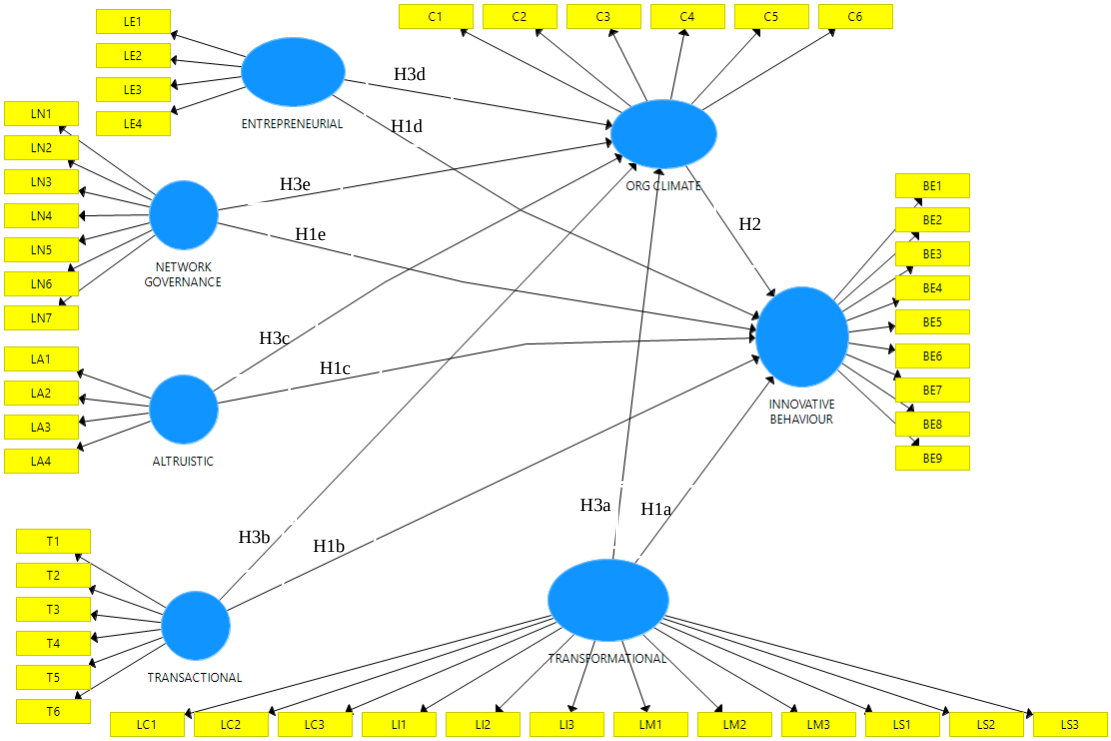

Figure 3: Structural model

Source: Smart PLS, 2019

Common Method Bias

Common method bias can occur due to self-report measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Common method bias is a biasing of results that are caused by a common method, such as a single survey (Favero & Bullock, 2015). Another possible cause of common method bias is the implicit social

desirability associated with answering questions in a questionnaire in a particular way, again causing the indicators to share a certain amount of common variation (Kock & Lynn, 2012).To deal with common method bias, only previously tested scales were used (Alfes, Shantz, Truss, & Soane, 2013).

Common method bias (CMB) can also be tested using Harman's single factor test (Podsakoff & Organ, 1986) and VIF scores (Kock & Lynn, 2012). Podsakoff and Organ (1986) suggested that a single factor would emerge from a factor analysis or one general factor would account for most of the covariance in the independent and criterion variables if CMB was a serious problem. All seven variables were entered into an exploratory factor analysis with a principal axis factoring analysis, extracting eleven factors, with factor 1 accounting for only 30.32 percent of the variance, the table is attached as Appendix C. The results indicated that no single factor emerged and no one general factor accounted for the majority of the covariance among the latent factors. Therefore, CMB was unlikely to be a serious issue in this study.

Ethical Consideration

As indicated by Saunders, Lewis and Thornhill (2007), any social researcher should seek permission from the respondents stating clearly their intentions and being guided by research ethics. The respondents were therefore informed of anonymity and confidentiality. The researcher assured the respondents that their names would not be disclosed. As such, all information received from them (respondents) would be treated with the highest degree of confidentiality. In addition to this, the researcher also informed the respondents that they were free to

cease to give any response if they so wish. Finally, the researcher did not withhold any information about the study's possible risks, discomfort or benefits or deliberately deceive study subjects on these matters.

Chapter summary

This chapter discussed in details and in a systematic manner the methodology used for the study, and this includes the research setting, research design, the study population, sampling and sampling procedures adopted for the study, the instruments used, and procedures followed in the collection and analysis of data. The discussion has provided basis for the choice of the study's population and the sample of the study. In line with the purpose of the study, the chapter has described in details the instrument to be used for this study and the analysis to be conducted on each objective. The chapter provided data on the reliability of the instrument of measurement used in this study and provided for ethical consideration of the researcher. It enshrines that the anonymity of the respondents is protected and the results will be used for purely academic purposes.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

This chapter presents the research findings from the study. This study sought to examine leadership behaviours' influence on employees' innovative work behaviour and the role of organisational climate in mediating such a nexus. In line with the purpose of the study, the chapter is divided into two main parts. The first part presents and discusses the profile of the respondents used for the study. The second part assesses the measurement and structural models for the study and test hypotheses. Specifically, issues pertaining to indicator loadings, CR (Composite reliability), AVE (Average variance extracted) and DV (Discriminant validity) were considered for the measurement models. The direct effect and the indirect effect were also tested.

Demographic Profile of Respondents

This section provides information on the background characteristics of respondents which are summarised in Table 3. In this study, they include sex, age, metropolitan assembly, category of staff, level of staff, years worked and academic qualifications. As presented in Table 3, the workforce at the metropolitan assemblies in Ghana is male dominated. Majority of the respondents were males 61% with 39% of the respondents being females.

Table 3: Background characteristics of respondents

Background characteristics	Frequency	Percentage
Sex		
Male	192	61
Female	122	39
Total	314	100
Age		
21-30	74	24
31-40	94	30
41-50	81	26
51-60	65	21
Total	314	100
Metropolitan Assembly		
Kumasi	66	21
Accra	120	38
Tamale	19	6
Tema	50	16
Sekondi-Takoradi	42	13
Cape Coast	17	5
Total	314	100
Academic qualification		
HND/Diploma	44	14
First degree	146	46

Table 3 continues

Background characteristics	Frequency	Percentage
Postgraduate	93	30
Professional	32	10
Total	314	100
Category of staff		
Government of Ghana (GOG)	230	73
Internally Generated Fund (IGF)	84	27
Total	314	100
Level of Staff		
Junior Staff	177	56
Senior Staff	100	32
Managerial	37	12
Total	314	100
Years worked		
1-5 years	55	18
6-10 years	85	27
11-15 years	76	24
16-20 years	51	16
21 years and above	47	15
Total	314	100

Source: Field survey (2019)

With respect to the age, it can be observed that at least 20% of respondents could be found in each age group. This shows a fair distribution among the various age groups. A higher proportion (30%) was found within the 31-40years age group. This was followed by those in the 41-50 years (26%) and 21-30 years (24%). Least representation was found among those aged 51-60 years (21%). This section also considers the distribution of the respondents across the metropolitan assemblies in

Ghana. About 38% of the respondents were working at the Accra Metropolitan Assembly and 21% at the Kumasi Metropolitan. The Tema Metropolitan assembly accounted for 16% of the entire respondents. The Sekondi-Takoradi Metropolitan Assembly had 13% whiles the Tamale and Cape Coast Metropolitan Assemblies were represented by 6% and 5% respectively.

Under this section, another issue of concern was the academic qualification of the respondents. Out of the 314 respondents, 146 representing 46% of all respondents had a first degree. This was followed by those with postgraduate (30%) and HND/Diploma qualifications (14%). Only 10% of the respondents had professional certificates. All the respondents, therefore, have had some level of education that qualifies them to work at the various assemblies. As indicated in Table 3, the two main categories of staff at the assemblies are Government of Ghana (GoG) workers and Internally Generated Fund workers (IGF). Out of the 314 respondents, 230 were GoG workers while the rest (84) were IGF workers.

The results of the study also revealed that majority of the respondents (56%) were junior staff. This was followed by the senior staff (32%) with the managerial staff (12%) occupying the minority position (with respect to their population). Also, concerning the working experience of respondents, a higher proportion (27%) have had 6-10 years of working experience. For those who have 11-15 years of working experience, they were represented by 24% of the respondents. Those that had more than 20 years of experience were the least and they were represented by 15% of the respondents. Longer years of working experience represents a hub of individuals that have acquired more skills and knowledge on working on the job.

Assessment of Measurement Models for the Study

This section focusses on the measurement models for the study. The section begins with the assessment of the indicator loadings. The measurement model assessments include indicator loadings, Internal consistency reliability (Composite reliability), Convergent validity (AVE-Average variance extracted) and Discriminant validity (Fornell-Lacker and HTMT). A consistent PLS algorithm was run to generate indicators for the assessment of the measurement model. The results are presented in the subsequent tables.

Assessing indicator loadings

Table 4 shows that some indicators have been dropped in comparison to indicators in figure 3. All indicators that loaded below the threshold of 0.7 as recommended by Hair et al (2016) were dropped to improve the reliability of the overall model. Out of a total of 48 indicators measuring the various latent variables, 17 indicators were dropped for failure to meet the indicator reliability criteria. Interestingly all the scales of altruistic leadership were maintained, with only 4 out of the 9 indicators of innovative work behaviour retained. All the indicators measuring idealised influence as a dimension of transformational leadership were dropped. The entrepreneurial leadership indicator LE4 (my supervisor is good at mobilising resource for innovation) was found not to be reliable. The indicator loadings of the retained items is shown in Table 4.

Table 4: Indicator loadings

	AL	EL	IWB	NG	ORG	TCL	TSL
BE1			0.737				
BE2			0.806				
BE3			0.866				
BE4			0.799				
C3					0.791		
C4					0.833		
C5					0.831		
C6					0.747		
LA1	0.820						
LA2	0.901						
LA3	0.885						
LA4	0.854						
LC1							0.798
LC2							0.824
LC3							0.779
LM1							0.788
LM2							0.789
LM3							0.787
LS1							0.791
LS2							0.754
LN1				0.833			
LN2				0.890			
LN3				0.836			
LN4				0.850			
T1						0.819	
T2						0.774	
T3						0.860	
T6						0.772	
LE1		0.856					
LE2		0.843					
LE3		0.863					

Source: Field survey (2019)

From Table 4, the four indicators of innovative behaviour loaded above 0.7. The least was (0.737) and the highest (.866), indicating that the retained indicators are reliable. The minimum indicator loading on organisational climate was (0.747) and the highest (0.833), Altruistic leadership indicators loaded between 0.820 and 0.901. The retained items of transformational leadership also loaded well above the 0.7 threshold, min (0.754) and max (0.824). Correspondingly, all other dimensions of leadership behaviour had retained indicators loading well above 0.7; Network governance 0.833-0.890; Transactional 0.744-772 and finally Entrepreneurial leadership 0.843-0.863. The indicators used to measure latent variables in this study are reliable, well above the threshold of 0.7.

Assessing internal consistency reliability

In this study, the internal consistency reliability of the constructs was measured using the composite reliability. The composite reliability is a more appropriate measure of internal consistency than the Cronbach's alpha (Rossiter, 2002). The results in Table 5 indicates that all latent variables in this study are reliable, as they all loaded about the 0.7 threshold by (Bagozzi & Yi, 1988). Transformational leadership had the highest score of composite reliability (0.929) this was followed by Altruistic leadership (0.923), Network governance (0.914), Entrepreneurial leadership (0.890), innovative work behaviour (0.879) and organisational climate (0.877). The results indicate that the model has internal consistency reliability. Table 5 also includes results on convergence validity.

Table 5: Validity and Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
AL	0.888	0.895	0.923	0.749
EL	0.817	0.836	0.890	0.729
IWB	0.816	0.818	0.879	0.646
NG	0.875	0.880	0.914	0.727
ORG	0.818	0.832	0.877	0.642
TCL	0.823	0.830	0.882	0.651
TSL	0.914	0.917	0.929	0.622

Source: Field survey (2019)

Assessing convergent validity

The average variance extracted was used in assessing convergent validity. Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al, 2017). An AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more variance remains in the error of the items than in the variance explained by the construct. The results from Table 5 indicates that all constructs have an AVE of more than 0.5. With the highest being Altruistic leadership and the least being Transformational leadership. This means that the constructs in this model are able to account for more than half of the variance in their indicators. As part of assessing the measurement model, discriminant validity was also assessed.

Assessing discriminant validity

Establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model (MacKinnon, 2008). In this study, both the Fornell-Lacker criterion and the HTMT were used to establish discriminant validity. The Fornell-Larcker criterion compares the square root of the AVE values with the latent variable correlations (Fornell & Larcker, 1981). Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct (Hair et al. 2013). The results from Table 6 indicates that the square root of each variable is well above their correlations with other constructs in the study. This means that each construct is unique and no two constructs capture the same phenomenon.

Table 6: Fornell-Lacker criterion

	1	2	3	4	5	6	7
AL	**0.866**						
EL	0.441	**0.854**					
IWB	0.474	0.486	**0.804**				
NG	0.735	0.620	0.556	**0.853**			
ORG	0.377	0.240	0.500	0.288	**0.801**		
TCL	0.279	0.571	0.435	0.404	0.239	**0.807**	
TSL	0.195	0.350	0.415	0.306	0.323	0.434	**0.789**

Bold values are the square root of each construct's AVE which is higher than their correlation with other constructs.

Source: Field survey (2019)

The Fornell-Larcker criterion performs very poorly, especially when indicator loadings of the constructs under consideration differ only slightly (e.g.,

all indicator loadings vary between 0.60 and 0.80) as in this case leadership behaviours. When indicator loadings vary more strongly, the Fornell-Larcker criterion's performance in detecting discriminant validity issues improves but it is still rather poor in assessing overall discriminant validity (Voorhees, Brady, Calantone, & Ramirez, 2016). As a remedy, Henseler, Ringle and Sarstedt (2015) propose assessing the Heterotrait Monotrait ratio (HTMT) of the correlations. According to Henseler et al (ibid), a latent construct has discriminant validity when its HTMT ratio is below 0.850. The results presented in Table 7 show HTMT values well below 0.850.

Table 7: Heterotrait - Monotrait Ratio (HTMT)

	1	2	3	4	5	6	7
AL							
EL	**0.510**						
IWB	0.553	**0.586**					
NG	0.822	0.731	**0.654**				
ORG	0.417	0.257	0.587	**0.304**			
TCL	0.325	0.680	0.515	0.474	**0.287**		
TSL	0.206	0.390	0.470	0.337	0.339	**0.498**	

Source: Field survey (2019)

Assessing the structural model

This section provides an assessment of the hypotheses of this study. Assessment of the structural model entails assessing collinearity among constructs, coefficient of determination, predictive relevance, effect size, path coefficient and its significance. In this study, both the direct and the indirect model was run together based on the recommendation of Nitzl et al. (2016).

Table 8 shows the result for assessing multicollinearity among the indicators for this study. In the context of PLS-SEM, a tolerance value of 0.20 or lower and a VIF value of 5 and higher respectively indicate a potential collinearity problem (Hair et al., 2011). More specifically, an indicator's VIF level of 5 indicates that 80% of its variance is accounted for by the remaining formative indicators associated with the same construct.t With respect to the endogenous variable (innovative work behaviour), the results from Table 8 shows a minimum VIF of 1.269 and highest of 2.903, and a minimum tolerance value of 0.423 and highest of 0.788. With respect to organisational climate, VIF (min-1.271 and max-2.891) tolerance, it indicates a minimum tolerance value of 0.346 and highest of 0.787. The values obtained from this analysis indicated the absence of multicollinearity between the indicators.

Table 8: Collinearity amongst constructs

	IWB (VIF)	IWB (Tolerance)	Org. climate (VIF)	Org. climate (Tolerance)
Altruistic	2.363	0.423	2.181	0.459
Entrepreneurial	2.037	0.491	2.036	0.491
Network governance	2.903	0.344	2.891	0.346
Org climate	1.269	0.788		
Transactional	1.642	0.609	1.638	0.611
Transformational	1.350	0.741	1.271	0.787

Source: Field survey (2019)

The VIF results in Table 8 further confirms the absence of common method bias. Based on the criteria proposed by Kock and Lynn (2012), the occurrence of a VIF value greater than 3.3 is proposed as an indication of pathological collinearity, and also as an indication that a model may be contaminated by common method bias. Therefore, if all VIFs resulting from a full collinearity test are equal to or lower than 3.3, the model can be considered free from the problem of vertical or lateral collinearity and common method bias (Kock, 2013)

Assessing coefficient of determination and predictive relevance

The R^2 is a measure of the model's predictive accuracy. Another way to view R^2 is that it represents the exogenous variable's combined effect on the endogenous variable(s). Hair et al. (2014) advanced that a coefficient of determination (R^2) of 0.25, 0.5 and 0.75 are considered as weak, moderate and substantial respectively for structural models. The author further asserted that a predictive relevance (Q^2) of "0.02, 0.15 and 0.35" and effect size (f^2) of "0.02, 0.15 and 0.35" are seen as "small, medium and large" respectively for structural models. Referring from Table 9, it can be concluded that leadership behaviour has a moderate (0.48) coefficient of determination on employees' innovative work behaviour, accounting for 48.8 percent of the variation in innovative work behaviour. With respect to predictive relevance, the results show a medium predictive relevance of the model on the endogenous variable (0.294). This shows that the exogenous variables do well to predict the endogenous variable. The results of the effect size show that all variables have a small effect size on the endogenous variable.

Objective one

The first objective of this study sought to examine the influence of leadership behaviours on employees' innovative work behaviour within the Ghanaian metropoles. The path model in Figure 4 shows five direct paths from leadership behaviour to innovative work behaviour. These paths represent hypothesis 1a to 1e. The direct effect showed that leadership behaviour and organisational accounted for 48.8 percent of the variation in employees innovative work behaviour.

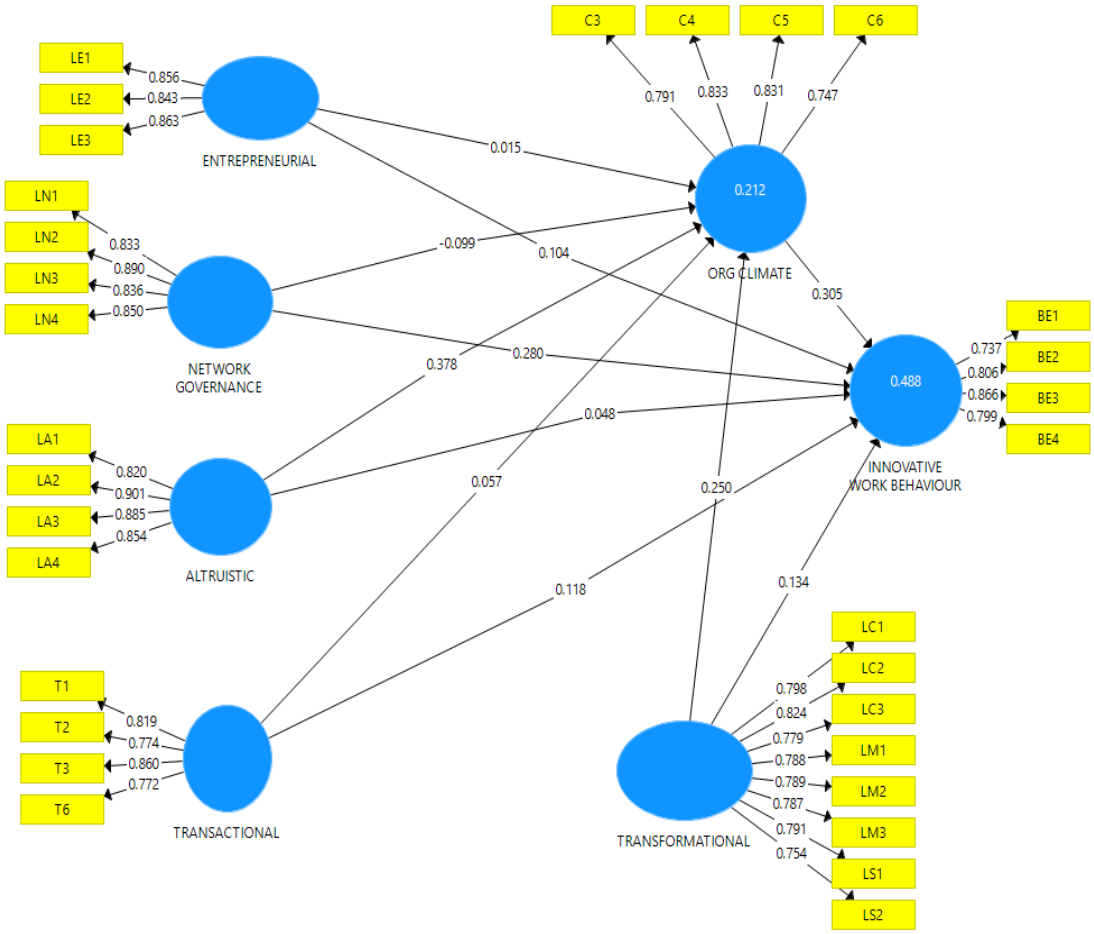

Figure 4: Outer and inner model results

Source: Field survey (2019)

The first hypothesis was formulated to determine whether there is a relationship between transformational leadership and innovative work behaviour. The formulated hypothesis thus reads:

H1a: Transformational leadership style has a positive effect on Innovative work behaviour

Table 9: Structural model results for hypotheses 1a, 1b, 1c, 1d and 1e

	Path	T Statistics	R^2	Adjusted R^2	Q^2	P-Value	F^2
IWB			0.488	0.478	0.294		
AL	0.048	0.635				0.526	0.002
EL	0.104	1.586				0.113	0.010
NG	0.280	3.432				0.001	0.053
TCL	0.118	2.145				0.032	0.017
TSL	0.134	2.229				0.026	0.026

Source: Field survey (2019)

Based on the path estimation, the results of the PLS-SEM showed that transformational leadership behaviour had a significant positive effect of employees' innovative work behaviour (($\beta = 0.134$, $p<0.05$; Table 9, Figure 4). The path coefficient was in the same direction as hypothesized, hence the hypothesis

that transformational leadership was related to employees' innovative work behaviour is supported. The findings lead to the conclusion that a people-focused leadership, based on influencing and effecting revolutionary change within the Ghanaian public sector is key to stimulate the innovative behaviour of employees. This conclusion is in line with the study of Lewis et al (2018) that concluded that transformational leadership is key for innovation within the public sector.

A similar conclusion was drawn by Li et al (2019) who also found a strong positive association between transformational leadership and employees' innovative work behaviour. Also supported by the findings of Kim and Yoon (2015) who concluded that, the degree to which an employee perceives senior managers' transformational leadership is positively related to the degree to which the employee perceives a culture of innovation. It, however, contradicts the findings of Naqvi et al (2017) who found no association between transformational leadership and employees' innovative work behaviour. The tenets of transforming, influencing and motivating within the public sector are needed to support innovativeness within the Ghanaian public sector.

The second hypothesis was formulated to determine whether there is a relationship between transactional leadership and employees' innovative work behaviour.

H1b: Transactional leadership style has a positive effect on innovative work behaviour

Based on the path estimation, the results of the PLS-SEM showed that transactional leadership behaviour had a significant positive effect on employees'

innovative work behaviour ($\beta = 0.114$, $p<0.05$; Table 9, Figure 4). As it was hypothesised, the transactional approach to leadership has a positive effect on employees' innovative behaviour. This study, therefore, supports the second hypothesis. However, some researchers (Bass, 1985; Lee, Si & Wei, 2012) found negative relationship between the transactional leadership style and employee's innovative behaviour. They set an argument that because the transactional leader only gives rewards and benefits for the accomplishment of specific objectives therefore employees do not engage themselves in innovative behaviour in the workplace.

According to Kahai, Sosik and Avolio (2003), the transactional leaders can put together probability for their employees to fulfil goals and to extrinsically motivate employees to contribute creativity. Creativity leads to innovation and that is why with the exchange of reward, the creative employee is stimulated and motivated to enhance the innovative behaviour in the workplace. The positive effect of transactional leadership behaviour on employees' innovative behaviour could be due to the focus of transactional leadership on compensating for efforts and offering rewards for performance. If the public sector worker exerts more, he/she will be compensated for it. Therefore, it can be inferred that transactional leadership provides that impetus do more, bring new ideas, seeks support for implementing innovative solutions by clarifying tasks and offering compensation.

The conclusion drawn by this study is supported by the findings of Contreras et al (2017) who concluded that transactional leadership behaviour of supervisors had a positive influence on employees' ability to innovate. Xie et al

(2018) also concluded that transactional leadership style positively correlates with innovation atmosphere. In addition, of Kim and Yoon (2015) concluded that the supervisor's transactional leadership behaviours are key for innovation in the public sector. The studies of Lewis et al (2018), and Rank et al (2008) found no association and a negative association respectively between supervisor's transactional behaviours and employees' innovativeness. However, Golla and Johnson (2013) concluded that transactional leadership is suitable when the goal is to instil a culture of innovation.

The third hypothesis of this study sought to test the effect of altruistic leadership behaviour on the innovative work behaviour within Ghanaian metropolitan assemblies. The hypothesis was stated that;

H1c: Altruistic leadership style has a positive effect on Innovative work behaviour

Based on the path estimation, the results of the PLS-SEM showed that altruistic leadership behaviour had no significant effect on employees' innovative work behaviour (($\beta = 0.048$, $p>0.05$; Table 9, Figure 4). The result fails to support the hypothesis that altruistic leadership behaviour has a positive effect on innovative behaviour. The results are inversely related to what was hypothesis. It leads to a conclusion that innovative behaviour among public sector employees is not necessarily stimulated by prosocial leadership behaviours. The relationship between altruistic leadership and innovative behaviour could be based on the work context, most of the studies on altruistic leadership behaviours and employees' innovative behaviour were conducted within hospitals and among health workers

(Dominguez Escrig et al, 2016; Sallas-vallina, 2018). The context could account for the insignificant effect.

The fourth hypothesis of this study sought to test the effect of network governance on employees' innovative work behaviour. The hypothesis was stated that;

H1d: Network Governance leadership style has a positive effect on Innovative work behaviour

The study estimated the path between network governance leadership and employees' innovative work behaviour. The results as shown in figure 4 and Table 9, indicated a path coefficient of 0.280 and a p-value of 0.01. The path coefficient was in the same direction as hypothesized, hence the hypothesis that network governance leadership was related to employees' innovative work behaviour is supported. The role of network governance in the public sector has been identified as key for innovation (Owusu & Appiah, 2014; Ricard et al, 2017). This study adds that, when public sector leaders foster networking and collaborations, it exposes staff to new knowledge and ideas, improving the capacity to generate innovative solutions for public sector problems.

The magnitude of the path coefficient also indicates that network governance leadership has the largest significant effect on innovative behaviour among the five leadership behaviours. This is supported by the findings of Lewis et al (2018) who also concluded that network governance leadership had significant positive effect on employee's innovative behaviour. Speek (2017) adds up that network governance is key to solve problems with the limited resource set

available. In addition, Klijn and Koppenjan (2016) opine that multi-actor arrangements are seen to be more effective than hierarchy or markets in tackling complex societal problems—so-called wicked issues. The findings, however, contradict the study of Namara, et al (2015) however found no association between network governance and staff capacity to be innovative

The final hypothesis of the first objective sought to assess the influence of entrepreneurial leadership on employees' innovative work behaviour. Thus, the hypothesis was stated as follow;

H1e: Entrepreneurial leadership has a positive effect on innovative work behaviour

Based on the path estimation, the results of the PLS-SEM showed that entrepreneurial leadership behaviour had no significant effect on employees' innovative work behaviour ($\beta = 0.104$, $p>0.05$; Table 9, Figure 4). Based on the path estimation, the study fails to support the hypothesis that entrepreneurial leadership is related to employees' innovative work behaviour. Surprisingly, this finding is contrary to what other studies had concluded on entrepreneurial orientation. Lewis et al (2018) concluded that entrepreneurial orientation was key to manoeuvre through constant public sector policy changes. Renko et al.'s (2015) also found a positive connection between entrepreneurial leadership and employees' innovative work behaviour. The argument that entrepreneurial leadership improves innovation through developing an inspiring entrepreneurial vision (Guo, 2009; Karol, 2015), was found not applicable within the context of the metropolitan assemblies.

The explanation for the non-significance could be the nature of the public sector. The hierarchical nature and desire to avoid risk may account for the non-significant effect of entrepreneurial leadership. The indicator reliability assessment showed that the dimension of resource mobilisation was not reliable. These points to the fact that public sector staff do not see their leaders as being open towards new ideas, taking initiatives, encouraging risk taking among employees. The results show the above behaviours are not exhibited by public leaders in the Ghanaian public sector. A summary of the decisions with respect to objective one is presented in Table 10.

Table 10: Summary of objective 1

Hypothesis	Beta	t-value	Decision
AL-IWB	0.048	0.635	Not Supported
EL-IWB	0.104	1.586	Not supported
NG-IWB	0.280	3.432	**Supported**
TCL-IWB	0.118	2.145	**Supported**
TSL-IWB	0.134	2.229	**Supported**

Source: Field survey (2019)

Two hypotheses stated as part of the first objective were not supported because their p-value was >0.05. The results, however, show that, network governance leadership had the highest significant effect on innovative behaviour due to the magnitude of its path coefficient (0.280), this is followed by transformational leadership (0.134) and transactional leadership (0.118). It should be noted that transformational leadership has a higher effect on employees' innovative behaviour in the Ghanaian public sector than transactional leadership.

Objective 2

The second objective sought to assess the effect of organisational climate on employees' innovative work behaviour. The objective was tested as part of the entire model, representing the direct path from organisational climate to employees' innovative work behaviour. Thus, it was hypothesised that;

H2: Organisational climate has a positive effect on innovative work behaviour

Table 11: Structural model results for hypothesis 2

	Path	T Statistics	R^2	Adjusted R^2	Q^2	P-Value	F^2
IWB			0.488	0.478	0.294		
ORG	0.305	5.993				0.000	0.143

Source: Field survey (2019)

Based on the path estimation, the results of the PLS-SEM showed that organisational climate had a significant positive effect of employees' innovative work behaviour (($\beta = 0.305$, $p<0.05$; Table 11, Figure 4). The results show that the climate within the metropolitan assemblies is a key determinant of employees' innovation capacity. Comparatively, Organisational climate (0.305) shows a larger effect on innovative work behaviour than all five leadership behaviours. The results also show that organisational climate has a medium effect (0.143) on innovative work behaviour based on the criteria of Hair et al. (2014). Therefore, based on the direction and the significance of the path between organisational climate and employees' innovative work behaviour, the study supports the assertion that organisational climate has a positive effect on Innovative work behaviour.

Because the p-value is <0.05, the study supports the hypothesis that

H2: Organisational climate has a positive significant effect on innovative work behaviour

The findings of this objective are supported by the social exchange theory. Based on the principle of reciprocity, when the right resource for innovation is provided, it gives employees a perception of an organisational climate that supports innovation. The study is in line with the findings of Naguib and Naem (2018) who concluded that there was a positive effect of organisational climate on employees' innovative behaviour. Similarly, Park and Jo (2017) concluded that organisational climate had a positive effect on innovative behaviour in the Korean government sector. Contrary to the findings of Scott and Bruce (1994), resource supply is positively associated with employees' innovative behaviours. This shows that the perception of Ghanaian public sector workers with respect to their organisational climate is key in stimulating the right response in terms of innovative behaviour.

Objective 3

The third objective of this study sought to examine the mediating role of organisational climate on leadership behaviour and innovative work behaviour nexus among staff of the metropoles. Given that leadership behaviour has a significant effect on employees' innovative work behaviour, and organisational climate also has a positive effect on innovative work behaviour, a mediation test was possible. As Nitzl (2016) had indicated, a significant indirect effect is the only prerequisite for establishing a mediation effect. This objective formed the basis for testing hypothesis 3a to 3e. According to the procedure outlined by Hair et al

(2017), the mediating effect of organisational climate on the nexus between leadership behaviour and innovative work behaviour was examined through bootstrapping.

The results of the total effect are presented in Table 12. It indicates the significance of every path hypothesised in the model. With respect to altruistic leadership, the results of the indicate that altruistic leadership has a positive influence on employees' innovative work behaviour, however, the relationship is not statistically significant (p= 0.526). Whiles there was found a positive significant association between altruistic leadership behaviour and organisational climate (p=0.000). Altruistic leadership had a small effect size on both innovative behaviour and organisational climate. However, entrepreneurial leadership had no influence on both innovative work behaviour (p= 0.113) and organisational climate (p=0.854), this shows that the variable (EL) is not fit for mediation analysis.

Table 12: Total effect

	Path	T Statistics (|O/STDEV|)	P-Values	f^2
AL -> IWB	0.048	0.635	0.526	0.002
AL -> ORG	0.378	4.698	0.000	0.083
EL -> IWB	0.104	1.586	0.113	0.010
EL -> ORG	0.015	0.184	0.854	0.000
NG-> IWB	0.280	3.432	0.001	0.053
NG -> ORG	-0.099	1.089	0.276	0.004

Table 12 continues

	Path	T Statistics (|O/STDEV|)	P-Values	f^2
ORG-> IWB	0.305	5.993	0.000	0.143
TCL -> IWB	0.118	2.145	0.032	0.017
TCL -> ORG	0.057	0.824	0.410	0.002
TSL -> IWB	0.134	2.229	0.026	0.026
TSL -> ORG	0.250	4.155	0.000	0.062

Source: Field survey (2019)

From Table 12, it can also be inferred that network governance only has a direct influence on innovative behaviour (p=0.001), a negative relationship was recorded between network governance leadership and organisational climate (path= -0.099) however that relationship was found to be insignificant (p=0.276). Network governance leadership, therefore, can only have a direct influence on stimulating employees' innovative behaviour. In this study it has been concluded that an organisational climate has a positive influence on employees' innovative behaviour (p= 0.000). Having already established a positive relationship between transactional leadership style and innovative work behaviour (p=0.017), the relationship between transactional leadership and organisational climate is not significant (p=0.410). Lastly, the results from Table 12 indicate that transformational leadership has a positive influence on both innovative work behaviour (p= 0.026) and organisational climate (p= 0.000).

Table 13 shows the coefficient of determination and predictive relevance of the model on the two endogenous variables. The results show that the entire model accounts for 48% of the variation in the innovative work behaviour of employees at the metropolitan assemblies. According to Chin (1998), an R^2 value of 48% indicates moderate variation, which is sufficient (Hair et al, 2017). Also, with respect to the mediating variable, the results show that 20% of the variation in organisational climate is accounted for by employee's leadership behaviour. The Stone-Geisser's Q^2 statistic (Stone, 1974) was used to assess the predictive relevance of the model. The model shows a predictive relevance of 0.294 for innovative work behaviour and 0.116 for organisational climate indicate medium predictive relevance according to Hair et al (2016).

Table 13: Coefficient of Determination (R^2) and predictive relevance

	R Square	R Square Adjusted	Q^2 (=1-SSE/SSO)
IWB	0.488	0.478	0.294
ORG	0.212	0.199	0.116

Source: Field survey (2019)

Based on the positive significant effect of the mediating variable (Organisational climate) on innovative work behaviour, and the positive effect of some leadership on organisational climate, the specific indirect effect was assessed to determine the nature and type of mediating effect as proposed by (Niltz et al, 2016 & Hair et al, 2017). The mediation analysis was tested between all leadership behaviours and employees' innovative work behaviour. This led to testing 5 hypotheses with respect to the indirect effect. The results of the specific indirect effect are presented in Table 14.

Table 14: Structural model results for hypotheses 3a, 3b, 3c, 3d and 3e

	T Statistics (|O/STDEV|)	P Values	**Decision**
AL-> ORG->IWB	3.610	0.000	**Supported**
EL-> ORG->IWB	0.183	0.855	Not supported
NG-> ORG-> IWB	1.066	0.286	Not Supported
TCL -> ORG->IWB	0.802	0.423	Not Supported
TSL-> ORG->IWB	3.377	0.001	**Supported**

Source: Field survey (2019)

The first step of testing the effect of the exogenous variable on the mediating variable showed that only Altruistic and Transformational leadership behaviours had a relationship with organisational climate. The results from Table 15 shows that organisational climate mediates the relationship between altruistic and innovative work behaviour. Based on the criteria of Carrión et al (2017), it can be concluded that a full mediation occurs between altruistic leadership behaviour and employees' innovative work behaviour. This is because the direct effect of altruistic leadership on innovative work behaviour was not significant (p=0.526, Table 15). The results show that altruistic leadership behaviours can only influence innovative behaviour by supplying the right resource needed for innovation.

The results also show that the path between transformational leadership-Organisational Climate-Innovative work behaviour is significant. This leads to the conclusion that organisational climate mediates the relationship between transformational leadership and organisational climate. Based on Carrión et al (2017), the nature of the mediation of organisational climate is a complimentary

partial mediation. This is because both the direct and indirect effect is statistically significant and are both positive (TSL -> IWB, 0.026; TSL -> ORG, 0.000). The findings lead to the conclusion that transformational leadership behaviour can be complemented by creating a climate that supports innovation within the public sector. The findings of this are supported by the results of Naguib and Naem (2018) who concluded that resource supply mediates the relationship between transformational leadership and innovation.

Also, Kim and Yoon (2015) found that organisational climate— through enhancing the recognition of employee creativity, the flexibility to change, and resources for innovation—is significantly associated with employees' perceptions of a culture of innovation. Concluding that, the degree to which an employee perceives resources for innovation is positively related to the degree to which the employee perceives a culture of innovation at his or her work unit. Isaksen (2007) added that leaders and their behaviours influence employees' perceptions of climate for innovation and encouragement of change and creativity. Thus, it can be concluded that climate for innovation is a direct result of leadership in the organisation (Gendi, 2017) and climate affects innovative behaviour.

This current study could only affirm a mediating role of organisational climate on altruistic and transformational leadership. Based on the path-goal theory, this study has shown that leaders adopt various behaviours to influence employees' performance. Though not all leadership behaviours can bring equal results, it adds up to the discussions that the complex nature of public sector leadership demands a multi behavioural approach. The results have shown that when the goal is to

stimulate innovative behaviour to solve societal problems, transformational, transactional and network governance is needed. And also, prosocial leader behaviour, rooted in altruism, can only influence employee's innovative behaviour by creating a supportive climate. The role of entrepreneurial leadership has still not been developed within the public sector. It is worth noting that, the network governance stands tall among all leadership behaviours in influencing employees' innovative behaviour.

Chapter summary

This chapter began with a description of the respondents to the study. The chapter included an assessment of the influence of public leadership behaviours on employees' ability to innovate. The second objective assessed the influence of organisational climate on employees' innovative work behaviour. The results of the study concluded that employees are able to introduce more innovative ideas when the required resources to support innovations are provided. The study also showed that there was a positive relationship between leadership behaviour and the climate of the organisation. Indicating that immediate supervisors and leaders within the public sector play an important role in creating a climate conducive for innovation within their units and departments. The chapter concluded with assessment of the mediating role of organisational climate on the relationship between leadership behaviours and innovative work behaviour. Based the social exchange theory, the study concluded that when leaders supply the needed resource for innovation, employees reciprocate by engaging in innovative behaviours. The next chapter presents the conclusions and recommendations of the study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The current chapter is the final chapter for this study. As a concluding chapter, it will capture information pertaining to a summary of the study, conclusions on the significant findings of the study, recommendations to the findings, limitations of the study and suggestions for future research. The presentations of the conclusions and the recommendations will be in line with the three specific objectives discussed in chapter four.

Summary

The main aim of this study was to assess public leadership behaviour influence on innovative work behaviour within metropolitan assemblies in Ghana and the role of organisational climate in mediating such a nexus. Specifically, the study sought to; assess the influence of dimensions of leadership behaviour on innovative work behaviour of staff; assess the effect of organisational climate on innovative work behaviour of staff and; examine the mediating role of organisational climate on leadership behaviour and innovative work behaviour nexus among staff.

To help achieve these objectives, five supporting hypotheses were formulated and tested accordingly. The study employed partial least squares structural equation modelling as the main statistical technique for testing the hypotheses. From a population of 4793 staff from the six metropolitan assemblies across Ghana, 357 were sampled, using the simple random technique, the Microsoft

Excel random number generation was used to randomly select respondents for the study. In total, 314 valid responses were obtained from the assemblies. The study began with a pre-test with 25 local government staff at the Komenda Edina Eguafo Abirem (KEEA) Municipal (Elmina). Following the success, a self-administered questionnaire based on scales from reliable and on extensive literature was administered to the respondents. This was done to avoid common method bias. The instrument centred on characteristics of the respondents as well as the variables considered in this study.

The demographic information on respondents was analysed using descriptive statistics (Frequencies and percentages). The three main objectives of this study were analysed using partial least squares structural equation modelling techniques with the aid of the SMART PLS version 3.0, whiles the descriptive were processed with the SPSS Version 24. An alpha level of 0.05 was used for all tests of significance. Five major hypotheses were developed for the first objective, one for the second objective and five for the third objective. The major findings as they related to the specific objectives and hypotheses of the study have been summarised below.

Major Findings

With respect to the first objective, the effect of public leadership behaviour on employees' innovative behaviour was assessed.

1. The results showed that three leadership behaviours (transformational, transactional, and network governance) had a positive significant influence on employees' innovative work behaviour. However altruistic and

entrepreneurial leadership behaviours were found not to influence employees' innovative work behaviour within the metropolitan assemblies.

2. The results also showed that network governance leadership had the largest significant influence on innovative work behaviour among the leadership behaviours. This was followed by transformational and transactional leadership behaviour respectively.

The second objective of this study assessed the effect of organisational climate on employees' innovative work behaviour.

3. Regarding this objective, it was found that organisational climate had a positive significant influence on employees' innovative work behaviour within the metropolitan assemblies. The findings of this study show that organisational climate had a larger effect size on innovative work behaviour, larger than the leadership behaviours.

The third objective assessed the mediating effect of organisational climate on the relationship between leadership behaviour and employees' innovative work behaviour.

4. The results indicated a mediating effect on altruistic and innovative work behaviour through organisational climate and transformational leadership. The results showed that organisational climate mediated the relationship between two leadership behaviours (Altruistic and transformational) and employees' innovative work behaviour. All other leadership behaviours had no significant indirect effect.

5. The findings showed that the direct effect of transformational leadership on innovative work behaviour could be complemented through organisational climate. In addition to this, the study found a full mediation between altruistic leadership behaviour and employees' innovative work behaviour. This shows that altruistic leadership behaviour could only stimulate innovative behaviour through an organisational climate that supports innovation.

Conclusion

The conclusions are drawn based on the findings of the study.

1. With respect to the first objective, it is concluded that network governance leadership is the most important leadership behaviour in supporting innovation within the metropolitan assemblies. Encouraging networks is key to stimulating the innovative capacity of employees. Encouraging workers to collaborate fosters knowledge transfer.
2. The study also adds that transformational leadership is important for innovation in the context of the public sector. Leadership behaviours based on influencing, motivating and effecting revolutionary change within the public sector is key in stimulating innovative work behaviour. Through the creation of a shared vision and inspiring employees, leaders spur innovative behaviours within the assemblies.
3. A key conclusion drawn from this study is that transactional leadership behaviour is as important as transformational leadership in supporting innovation among public sector employees. A focus on performance in

return for a reward, clarification of task and communication is key as dimensions of transactional leadership to support innovation among public sector staff. From the transactional leadership style perspective, public sector leaders are urged to monitor and reward followers for accomplishing set goals (contingent reward) as well as monitoring deviations from what is deemed ideal (management-by exception). Transactional leadership behaviours provide the impetus to do more, bring new ideas, seeks support for implementing innovative solutions by clarifying tasks and offering compensation.

4. With respect to the second objective, this study concludes that organisational climate within public sector institutions has a strong influence on employees' innovative work behaviour. Drawing from the social exchange theory, the study concludes that the supply of resource for innovation will positively contribute to employee's innovative behaviour, based on reciprocity. Resource supply in terms of people, time and money are key for promoting innovations in the public sector. Employees' mutual belief in a supportive innovation climate in the public sector may be lasting if resources are supplied and an innovation climate acts as another antecedent of employees' innovative behaviours.
5. With respect to the final objective, this study concludes that altruistic leadership behaviours can only influence innovation by creating an innovation supportive climate within the public sector. A leadership behaviour centred on helping people and on prosocial behaviours may not

have a direct effect on employees' ability to innovate if the right resources are not provided. The findings also lead to the conclusion that organisational climate mediates the relationship between transformational leadership and employees' innovative behaviour. It adds that the effect of transformational leadership on employees' innovative behaviour is complemented if an organisational climate that supports innovation is created. By offering resource support in terms of enough time to experiment, qualified human resource and financial support, the right climate can be created.

Recommendations

The following recommendations are based on the conclusions drawn from this study;

1. The leadership of local assemblies in Ghana must encourage networking and collaboration among staffs. The local government service must develop initiatives aimed at promoting networking among staff of MMDAs with other sub government units, engaging citizens or other stakeholders. This will encourage exposure to innovative ideas, and provide a platform to solicit support for innovation.
2. Leadership training for public sector managers must be encouraged by the local government service and the various regional coordinating councils. The focus should be on developing leadership skills for leading multi actor networks, developing transformational and transactional skills. Training must focus on encouraging altruism among leaders and also encouraging entrepreneurial leadership within the public sector.

3. The capacity building plan developed at the assembly level must concentrate on the development of employees' innovative capacity. The focus of the training should include improving employees' ability to generate ideas, promote and implement innovative ideas.
4. The Local government service should undertake awareness creation and sensitisation of leaders within the assemblies to appreciate leadership as an influence relationship and to employ the right mix of leadership behaviours within their respective context to improve the climate within the assemblies and spur innovative behaviours among the staff. Leadership should not be seen just as a position.
5. It is recommended that leadership within the assemblies put mechanisms in place which allow employees to experience an innovation supportive climate. These include; making resources available, including the time required to continuously engage in innovation activities; providing financial resources specifically for generating and implementing innovative ideas and; allowing employees to take risks in the pursuit of innovation and to tolerate and learn from failures.

Suggestions for further research

It is suggested that further research be carried out to examine how administrative (Coordinating directors) and political (Metropolitan, municipal and district chief executives) leadership within the assemblies influence employees' innovative work behaviour. Replicating this study on a longitudinal basis will reveal how leadership behaviour influences innovative behaviour in the long-term.

REFERENCES

Adjei, B. (2015). *Leadership through the Spectacles of Gender: Does It Predict Followers' Stress Levels? Evidence from Ecobank* (Doctoral dissertation, University of Ghana).

Adu-Gyamfi, E. (2014). Effective revenue mobilisation by districts assemblies: A case study of Upper Denkyira East Municipal Assembly of Ghana. *Public Policy and Administration, 2*(1), 97-122.

Agarwal, U. A., Datta, S., Blake-Beard, S., & Bhargava, S. (2012). Linking LMX, innovative work behaviour and turnover intentions: The mediating role of work engagement. *Career Development International*, *17*(3), 208-230.

Agolla, J. E. (2015). *Assessment of innovation in Kenya's public sector organisations* (Doctoral dissertation).

Al-Farhan, M. (2018). *The influence of transformational leadership on individual and team innovativeness in the hospital sector in the United Arab Emirates* (Doctoral dissertation, Nottingham Trent University).

Alfes, K., Shantz, A. D., Truss, C., & Soane, E. C. (2013). The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model. *The International Journal of Human Resource Management*, *24*(2), 330-351.

Alvinius, A. (Ed.). (2017). *Contemporary Leadership Challenges*. BoD–Books on Demand.

Amabile, T. M. (1996). Creativity and innovation in organizations. *Harvard Business School Background Note*, 396-239.

Amabile, T. M., Hadley, C. N., & Kramer, S. J. (2002). Creativity under the gun. *Harvard Business Review*, *80*, 52-63.

Amabile, T. M., Schatzel, E. A., Moneta, G. B., & Kramer, S. J. (2004). Leader behaviors and the work environment for creativity: Perceived leader support. *The Leadership Quarterly*, *15*(1), 5-32.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411.

Angle, H. L. (1989). *Psychology and organisational innovation*. In A. H. Van de Ven, H. L. Angle, & M. S. Poole (Eds.), Research on the management of innovation: The Minnesota studies (pp. 135-170). New York: Harper & Row

Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, *18*(4), 543-571.

Armah-Attoh, D. (2015). The quality of public services: An intrinsic factor in Ghanaian evaluations of government performance. *Afrobarometer Policy Paper*, *21*, 1-13.

Aryeetey, E., & Kanbur, R. (2008). *The economy of Ghana: analytical perspectives on stability, growth & poverty*. Woodbridge: James Currey

Asamoah, K., Osei-Kojo, A., & Yeboah-Assiamah, E. (2013). Enhancing public sector productivity in Ghana: A qualitative study. *Journal of Public Administration and Governance*, *3*(3), 22-34.

Asogwa, B. E. (2013). Electronic government as a paradigm shift for efficient public services: Opportunities and challenges for Nigerian government. *Library Hi Tech*, *31*(1), 141-159.

Avolio, B. J., & Bass, B. M. (1995). Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership. *The leadership quarterly*, *6*(2), 199-218.

Avolio, B. J., & Bass, B. M. (2004). Multifactor leadership questionnaire (MLQ). *Mind Garden*, *29*.

Awosika, F. O. (2014). Transforming Public Service Performance in West Africa Through Innovations: Experiences from Ghana and Nigeria. *Africa's Public Service Delivery & Performance Review*, *2*(4), 72-100.

Ayee, J. R. (2013). The political economy of the creation of districts in Ghana. *Journal of Asian and African Studies*, *48*(5), 623-645.

Bagheri, A., & Akbari, M. (2018). The impact of entrepreneurial leadership on nurses' innovation behavior. *Journal of Nursing Scholarship*, *50*(1), 28-35.

Bankins, S., Denness, B., Kriz, A., & Molloy, C. (2017). Innovation agents in the public sector: Applying champion and promotor theory to explore innovation in the Australian Public Service. *Australian Journal of Public Administration*, *76*(1), 122-137.

Barker, R. A. (1997). How can we train leaders if we do not know what leadership is?. *Human relations*, *50*(4), 343-362.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.

Bartlett, D., & Dibben, P. (2002). Public sector innovation and entrepreneurship: Case studies from local government. *Local Government Studies*, *28*(4), 107-121.

Bass, B. M. (1985). *Leadership and performance beyond expectation.* New York: Free Press.

Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership. Theory, Research and Managerial Applications*, Vol. 3. New York: The Free Press

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Psychology press.

Blau, P. M. (1964). Justice in social exchange. *Sociological Inquiry*, *34*(2), 193-206.

Blayse, A. M., & Manley, K. (2004). Key influences on construction innovation. *Construction innovation*, *4*(3), 143-154.

Boachie-Mensah, F., & Acquah, I. S. (2015). The effect of innovation types on the performance of small and medium-sized enterprises in the Sekondi-Takoradi Metropolis. *Archives of Business Research*, *3*(3).

Borins, S. (2001). Encouraging innovation in the public sector. *Journal of intellectual capital*, *2*(3), 310-319.

Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors

in the Netherlands fire services. *The International Journal of Human Resource Management*, *28*(2), 379-398.

Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, *28*(2), 379-398.

Burns, R. B. (1979). *The self-concept: Theory, measurement, development and behavior*. New York: Longman.

Busaibe, L., Singh, S. K., Ahmad, S. Z., & Gaur, S. S. (2017). Determinants of organisational innovation: a framework. *Gender in Management: An International Journal*, *32*(8), 578-589.

Carrión, G. C., Nitzl, C., & Roldán, J. L. (2017). Mediation analyses in partial least squares structural equation modeling: Guidelines and empirical examples. In *Partial Least Squares Path Modeling* (pp. 173-195). Springer, Cham.

Cassel, C. M., Cerami, J. R. (2013). *Leadership and Policy Innovation--from Clinton to Bush: Countering the Proliferation of Weapons of Mass Destruction* (Vol. 3). Routledge.

Chang, C. H., & Chen, Y. S. (2013). Green organisational identity and green innovation. *Management Decision*, *51*(5), 1056-1070.

Chaudhry, A. Q., Javed, H., & Sabir, M. (2012). The impact of transformations and transactional leadership styles on the motivation of employees in Pakistan. *Pakistan Economic and Social Review*, 223-231.

Chen, M. H. (2007). Entrepreneurial leadership and new ventures: Creativity in entrepreneurial teams. *Creativity and Innovation Management*, *16*(3), 239-249.

Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *JSTOR* (*Management Information Systems Research Center)*, *22*(1), 7-15.

Choi, S. B., Kim, K., Ullah, S. E., & Kang, S. W. (2016). How transformational leadership facilitates innovative behavior of Korean workers: Examining mediating and moderating processes. *Personnel Review*, *45*(3), 459-479.

Contreras, F., Dornberger, U., Espinosa, J. C., Angel, Y., & Acosta, C. 1 Organisational Climate for Innovation: A Study in Vietnam. In *Conference Proceedings iN4iN network conference 2017 Entrepreneurship and Innovation for Competitiveness Ho Chi Minh City, Vietnam* (p. 2).

Cote, R. (2017). A comparison of leadership theories in an organisational environment. *International Journal of Business Administration*, *8*(5), 28-35.

Covey, S. (2007). Developing Tomorrow's Transformational Leaders Today. *The Transformational Leadership Report*.

Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.). Boston, MA: Pearson Education, Inc.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

Creswell, J. W., & Creswell, J. D. (2016). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Currie, G., Humphreys, M., Ucbasaran, D., & McManus, S. (2008). Entrepreneurial leadership in the English public sector: paradox or possibility?. *Public Administration*, *86*(4), 987-1008.

Da Costa, S., Páez, D., Sánchez, F., Gondim, S., & Rodríguez, M. (2014) Factors favorable to innovation in organizations: an integration of meta-analysis. *Journal of Work and Organizational Psychology*, *30*, 67-74.

Daglio, M., Gerson, D., Kitchen, H. (2015). *Building Organisational Capacity for Public Sector Innovation*. Paris: OECD.

Damanpour, F. (1991). Organisational Innovation: A Meta-Analysis of Effects of Determinants and Moderators. *Academy of Management Journal*, 34, 3, 555-590.

Damanpour, F. and M. Schneider. (2009). Characteristics of Innovation and Innovation Adoption in Public Organizations: Assessing the Role of Managers, *Journal of Public Administration Research and Theory*, 19(*3*), 495-522.

Damanpour, F., Walker, R. M., & Avellaneda, C. N. (2009). Combinative effects of innovation types and organisational performance: A longitudinal study of service organizations. *Journal of Management Studies*, *46*(4), 650-675.

De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, *19*(1), 23-36.

De Vries, H., Bekkers, V., & Tummers, L. (2016). Innovation in the public sector: A systematic review and future research agenda. *Public Administration*, *94*(1), 146-166.

Denis, J. L., Langley, A., & Rouleau, L. (2005). Rethinking leadership in public organizations. *In The Oxford handbook of public management*.

Devan, J. (2006). *Theories use in IS Research. Social exchange theory*. York university, USA.

Devanna, M. A., & Tichy, N. (1990). Creating the competitive organization of the 21st century: The boundaryless corporation. *Human Resource Management*, *29*(4), 455-471.

Diefenbach, T. (2009). New public management in public sector organizations: the dark sides of managerialistic 'enlightenment'. *Public Administration*, *87*(4), 892-909.

Doh, D. (2017). Staff Quality and Service Delivery: Evaluating Two Ghanaian District Assemblies. *IDS Bulletin*, *48*(2).

Dominguez Escrig, E., Broch, F. F.M., Chiva-Gomez, R., & Lapiedra, R. (2016). How does altruistic leader behavior foster radical innovation? The mediating effect of organizational learning capability. *Leadership & Organization Development Journal*, *37*(8), 1056-1082.

Dorsman, S. J., Tummers, L. G., & Thaens, M. (2015*). Understanding public sector innovations: the role of leadership activities for a climate for innovation*. Utrecht University Repository.

Drolet, A. L., & Morrison, D. G. (2001). Do we really need multiple-item measures in service research?. *Journal of Service Research, 3*(3), 196-204.

Bradley, E., & Tibshirani, R. J. (1993). An introduction to the bootstrap. *Monographs on Statistics and Applied Probability*, *57*.

Eisenbeiss, S. A., van Knippenberg, D. & Boerner, S. (2008). Transformational leadership and team innovation: Integrating team climate principles. *Journal of Applied Psychology, 93*(6), 1438- 1446.

Ekvall, G. (1997). Organisational conditions and levels of creativity. *Creativity and Innovation Management*, *6*(4), 195-205.

Faraz, N. A., Yanxia, C., Ahmed, F., Estifo, Z. G., & Raza, A. (2018). The influence of transactional leadership on innovative work behavior—a mediation model. *European Journal of Business and Social Sciences, 7*(01), 51-62.

Favero, N., & Bullock, J. B. (2014). How (not) to solve the problem: An evaluation of scholarly responses to common source bias. *Journal of Public Administration Research and Theory*, *25*(1), 285-308.

Fuhr, H., & Campbell, T. (Eds.). (2004). *Leadership and innovation in subnational government: case studies from Latin America*. The World Bank.

Gatere A., Keraro V. & Gakure R. (2013). The impact of performance contracts on service delivery at Teachers Service Commission in Kenya. *Prime journals of business administration and management*, 2251-1261

El Gendi, R. (2017). *The relationship between employees' perceptions of climate for innovation, organisation innovativeness, and customer experience in a*

major telecommunications organisation in Egypt (Doctoral dissertation, University of Reading).

Getha-Taylor, H., & Morse, R. S. (2013). Collaborative leadership development for local government officials: Exploring competencies and program impact. *Public Administration Quarterly*, 71-102.

Golla, E. & Johnson, R. (2013). The relationship between transformational and transactional leadership styles and innovation commitment and output at commercial software companies. *The Business Review*, 21(1), 337–343.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 161-178.

Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, *93*(1), 48.

Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, *54*(1), 73-96.

Greenberg, D., McKone-Sweet, K., & Wilson, H. (2011). Entrepreneurial Leadership: Shaping Social and Economic Opportunity. *The New Entrepreneurial Leader*, 1-22.

Guba, E. G. (1990). The paradigm dialogs. In *Alternative Paradigms Conference, Mar, 1989, Indiana U, School of Education, San Francisco, CA, US*: Sage Publications, Inc.

Gumusluoğlu, L., & Ilsev, A. (2009). Transformational leadership and organizational innovation: The roles of internal and external support for innovation. *Journal of Product Innovation Management*, *26*(3), 264-277.

Guo, G. (2009). China's Local Political Budget Cycles. *American Journal of Political Science, 53* (3), 621-632.

Gupta, V., MacMillan, I. C., & Surie, G. (2004). Entrepreneurial leadership: Developing and measuring a cross-cultural construct. *Journal of Business Venturing*, 19, 241–260

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing Theory and Practice, 19*(2), 139-152.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.

Hall, J., Johnson, S., Wysocki, A., & Kepner, K. (2002). *Transformational leadership: The transformation of managers and associates.* University of Florida IFAS Extension.

Hartmann, A. (2006). The role of organisational culture in motivating innovative behaviour in construction firms. *Construction Innovation*, *6*(3), 159-172.

Hassan, S., & Hatmaker, D. M. (2014). Leadership and performance of public employees: Effects of the quality and characteristics of manager-employee relationships. *Journal of Public Administration Research and Theory*, *25*(4), 1127-1155.

Haug, A. V. (2018). Innovation and network leadership: The bureaucracy strikes back?. *Information Polity*, *23*(3), 325-339.

Hemlin, S. (2006). Creative knowledge environments for research groups in biotechnology. The influence of leadership and organisational support in universities and business companies. *Scientometrics*, *67*(1), 121-142.

Hemlin, S., Allwood, C. M., & Martin, B. R. (2008). Creative knowledge environments. *Creativity Research Journal*, *20*(2), 196-210.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115-135.

Hormans, G. C. 1958. Social behavior as exchange. *American Journal of Sociology*, 63(6): 597–606.

House, R. J. (1996). Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *The Leadership Quarterly*, *7*(3), 323-352.

House, R. J., & Mitchell, T. R. (1975). *Path-goal theory of leadership* (No. TR-75-67). Washington University Seattle Department of Psychology.

Howell, J.M., Shea, C.M. and Higgins, C.A. (2005) Champions of Product Innovations: Defining, Developing, and Validating a Measure of Champion Behavior. *Journal of Business Venturing*, 20, 641–61.

Huber, D., 2006. *Leadership and Nursing Care Management* (3rd ed). Philadelphia: Elsevier Health Sciences.

Hughes, R. L., Ginnett, R. C., & Curphy, G. J. (2002). *Leadership: Enhancing the lessons of experience* (4th ed.). Boston: McGraw-Hill Irwin.

Hussain, S. T., Abbas, J., Lei, S., Jamal Haider, M., & Akram, T. (2017). Transactional leadership and organisational creativity: Examining the

mediating role of knowledge sharing behavior. *Cogent Business & Management*, *4*(1), 1361663.

Huxham, C., & Vangen, S. (2000). Leadership in the shaping and implementation of collaboration agendas: How things happen in a (not quite) joined-up world. *Academy of Management Journal*, *43*(6), 1159-1175.

Imperial, M. T., Ospina, S., Johnston, E., O'Leary, R., Thomsen, J., Williams, P., & Johnson, S. (2016). Understanding leadership in a world of shared problems: advancing network governance in large landscape conservation. *Frontiers in Ecology and the Environment*, *14*(3), 126-134.

Iqbal, N., Anwar, S., & Haider, N. (2015). Effect of leadership style on employee performance. *Arabian Journal of Business and Management Review*, *5*(5), 1-6.

Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management*, *29*(6), 963-989.

Isaksen, S. G. (2007). The climate for transformation: Lessons for leaders. *Creativity and Innovation Management*, *16*(1), 3-15.

Isaksen, S.G., Lauer, K.J., Ekvall, G. and Britz, A. (2001). Perceptions of the best and worst climates for creativity: preliminary validation evidence for the Situational Outlook Questionnaire. *Creativity Research Journal*, 13(*2*), 171-84.

James, J.R., Choi, C. C., Ko, C-H. E., McNeil, P.K., Minton, M.K., Wright, M.A. and Kim, K. (2008). Organisational and psychological climate: A review of

theory and research. *European Journal of Work and Organisational Psychology*, 17, 5– 32.

Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organisational Psychology*, *73*(3), 287-302.

Janssen, O. (2004). How fairness perceptions make innovative behavior more or less stressful. *Journal of Organisational Behavior*, *25*(2), 201-215.

Janssen, O., Van de Vliert, E., & West, M. (2004). The bright and dark sides of individual and group innovation: A special issue introduction. *Journal of Organisational Behavior*, *25*(2), 129-145.

Jašková, I. (2017). The Relationship Between Organisational Justice and Innovative Behaviour. Scientific *Journal of the Faculty of Economics, University of West Bohemia*, *4*, 13-19.

Jeon, J. (2015). The strengths and limitations of the statistical modeling of complex social phenomenon: Focusing on SEM, path analysis, or multiple regression models. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, *9*(5), 1594-1602.

Jermier, J. M. (1996). The path-goal theory of leadership: A subtextual analysis. *The Leadership Quarterly*, *7*(3), 311-316.

Kanter, R. M. (1988). Three tiers for innovation research. *Communication Research*, *15*(5), 509-523.

Kanungo, R. N., & Conger, J. A. (1993). Promoting altruism as a corporate goal. *Academy of Management Perspectives*, *7*(3), 37-48.

Kalyani, M. (2011). Innovative culture: An intervention strategy for sustainable growth in changing scenario. *International Journal of Business Administration*, 2 (4), 84-92.

Kariuki, M., Wanjau, K. L., & Gakure, R. W. (2011). Relationship between Corporate Governance and Growth of Organizations: A survey of Companies listed in Nairobi Stock Exchange. *Proceedings of Kabarak University First International Conference*.

Karol, R. A. (2015). Leadership in the context of corporate entrepreneurship. *Journal of Leadership Studies*, *8*(4), 30-34.

Kazama, S., Foster, J., Hebl, M., West, M., & Dawson, J. (2002). *Impacting climate for innovation: Can CEOs make a difference?* Paper presented at the 17th Annual Conference of the Society for Industrial and Organisational Psychology, Toronto, Canada.

Keller, M. R., & Block, F. (2015). Do as I say or as I do? US innovation and industrial policy since the 1980s. *Development and modern industrial policy in practice: Issues and country experiences*, 219-246.

Khalaf, A. B., Rasli, A., & Ratyan, A. T. (2013). Building customer satisfaction from the perspective of employee satisfaction. *International Journal of Academic Research*, *5*(2).

Khan, Z. A., Nawaz, D., & Khan, I. (2015). The impact of leadership styles on innovation in health services. *Gomal University Journal of Research, 31*(1), 143-154.

Kheng, Y. K., June, S., & Mahmood, R. (2013). The determinants of innovative work behavior in the knowledge intensive business services sector in Malaysia. *Asian Social Science*, *9*(15), 47-59.

Khilji, S. E., Mroczkowski, T., & Assudani, R. (2012). Balancing growth and innovation in Indian biotech firms. *South Asian Journal of Global Business Research*, *1*(2), 256-275.

Kickert, W. J., Klijn, E. H., & Koppenjan, J. F. (Eds.). (1997). *Managing complex networks: Strategies for the public sector*. Sage.

Kim, A., Kim, Y., Han, K., Jackson, S. E., & Ployhart, R. E. (2017). Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy. *Journal of Management*, *43*(5), 1335-1358.

Kim, M. Y., Park, S. M., & Miao, Q. (2017). Entrepreneurial leadership and organisational innovation: Improving attitudes and behaviors of Chinese public employees. In *Public Service Innovations in China* (pp. 151-184). Palgrave, Singapore.

Kim, S., & Yoon, G. (2015). An innovation-driven culture in local government: do senior manager's transformational leadership and the climate for creativity matter?. *Public Personnel Management*, *44*(2), 147-168.

Kim, Y. (2010). Stimulating entrepreneurial practices in the public sector: The roles of organisational characteristics. *Administration amd Society*, *42*(7), 780-814.

Kleysen, R. F., & Street, C. T. (2001). Toward a multi-dimensional measure of individual innovative behavior. *Journal of intellectual Capital*, *2*(3), 284-296.

Klijn, E. H., & Koppenjan, J. (2016). The impact of contract characteristics on the performance of public–private partnerships (PPPs). *Public Money and Management*, *36*(6), 455-462.

Klijn, E. H., Steijn, B., & Edelenbos, J. (2010). The impact of network management on outcomes in governance networks. *Public Administration*, *88*(4), 1063-1082.

Knies, E., Boselie, P., Gould-Williams, J., & Vandenabeele, W. (2015). Strategic human resource management and public sector performance. *Special issue of International Journal of Human Resource Management, 26*(3), 421-424.

Kock, N., & Lynn, G. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, *13*(7).

Koryak, O., Mole, K. F., Lockett, A., Hayton, J. C., Ucbasaran, D., & Hodgkinson, G. P. (2015). Entrepreneurial leadership, capabilities and firm growth. *International Small Business Journal*, *33*(1), 89-105.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, *30*(3), 607-610.

Kremer, H., Villamor, I., & Aguinis, H. (2019). Innovation leadership: Best-practice recommendations for promoting employee creativity, voice, and knowledge sharing. *Business Horizons*, *62*(1), 65-74.

Kuratko, D. F. (2007). Entrepreneurial leadership in the 21st century: Guest editor's perspective. *Journal of Leadership & Organisational Studies, 13*(4), 1-11.

Kuusi, S. (2009). Aspects of Local Self-Government Ghana. *Helsinki: Finnish Association of Local Authorities*.

Lankeu, M. R. & Maket, J. L. (2012). Towards a Results-Oriented Public Service in Kenya: The Modern Human Resource Management Perspective *International Journal of Business and Social Science*, 3 (21), 265-271

Laumann, E. O. & Knoke, D. (1987). *The Organisational State. Social Choices in National Policy Domains*. Madison, WI: University of Wisconsin Press

Lee, J. (2008). Effects of leadership and leader-member exchange on innovativeness. *Journal of Managerial Psychology*, *23*(6), 670-687.

Lee, S. M., Hwang, T., & Choi, D. (2012). Open innovation in the public sector of leading countries. *Management Decision*, *50*(1), 147-162.

Lee, S. M., Olson, D. L., & Trimi, S. (2012). Co-innovation: convergenomics, collaboration, and co-creation for organisational values. *Management Decision, 50*(5), 817-831.

Leedy, P. D., & Ormrod, J. (2010). E. 2010. Practical Research: Planning and Design. *Ohio, Merrill Prentice Hall*.

Leitch, C. M., McMullan, C., & Harrison, R. T. (2013). The development of entrepreneurial leadership: The role of human, social and institutional capital. *British Journal of Management, 24*(3), 347–366.

Leithwood, K. (1994). Leadership for school restructuring. *Educational administration quarterly*, *30*(4), 498-518.

Letchumanasamy, R. S. (2013). *The impact of transformational leadership on organisational climate for innovation, innovative work behaviour and organisational performance in government linked companies* (Doctoral dissertation, Doctoral thesis), Charles Sturt University, Australia).

Lewin, K., Lippitt, R. & White, R.K. (1939). Patterns of aggressive behavior in experimentally created climates. *Journal of Social Psychology, 10,* 271-99.

Lewis, J. M., Ricard, L. M., & Klijn, E. H. (2018). How innovation drivers, networking and leadership shape public sector innovation capacity. *International Review of Administrative Sciences*, *84*(2), 288-307.

Li, H., Sajjad, N., Wang, Q., Muhammad Ali, A., Khaqan, Z., & Amina, S. (2019). Influence of transformational leadership on employees' innovative work behavior in sustainable organizations: Test of mediation and moderation processes. *Sustainability*, *11*(6), 1594.

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.

Lui, T. Y. (2011). Lui, T. Y. (2011). Speech given by the Acting Minister for Information. *Communications and the Arts at the Committee of Supply*, 10 March 2011, Singapore.

MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc

Malhotra, N. K., Birks, D. F., & Wills, P. (2013). *Essentials of marketing research*. Harlow: Pearson.

Malik, N., Dhar, R. L., & Handa, S. C. (2016). Authentic leadership and its impact on creativity of nursing staff: A cross sectional questionnaire survey of Indian nurses and their supervisors. *International journal of nursing studies*, *63*, 28-36.

Marion, R., & Uhl-Bien, M. (2001). Leadership in complex organizations. *The Leadership Quarterly*, *12*(4), 389-418.

Marsh, I., & Edwards, L. (2009). Dilemmas of policy innovation in the public sector: a case study of the National Innovation Summit. *Australian Journal of Public Administration*, *68*(4), 399-413.

Martins, E. C., & Terblanche, F. (2003). Building organisational culture that stimulates creativity and innovation. *European Journal of Innovation Management*, *6*(1), 64-74.

Mcdaniel, J. C., & Gates, R. (1996). *Contemporary Marketing Research*. San Francisco: West Publishing Company

McGrath, R. G., & MacMillan, I. C. (2000). *The entrepreneurial mindset: Strategies for continuously creating opportunity in an age of uncertainty* (Vol. 284). Harvard Business Press.

McGuire, M., & Agranoff, R. (2011). The limitations of public management networks. *Public Administration*, *89*(2), 265-284.

Miao, Q., Newman, A., Schwarz, G., & Cooper, B. (2018). How leadership and public service motivation enhance innovative behavior. *Public Administration Review*, *78*(1), 71-81.

Ministry of Local Government and Rural Development (MLGRDE) (2009). *Operational manual for the implementation and the administration of the District Development Facility*. Accra: MLGRD.

Mohammad Mosadegh Rad, A., & Hossein Yarmohammadian, M. (2006). A study of relationship between managers' leadership style and employees' job satisfaction. *Leadership in Health Services*, *19*(2), 11-28.

Moussa, M., McMurray, A., & Muenjohn, N. (2018). Innovation in public sector organisations. *Cogent Business and Management*, *5*(1), 1475047.

Muhammad, M.L; Muhammed, M.Y & Aliyu, B. (2013). Bureaucratic corruption and service st delivery in Nigeria: The 21-century dilemma of the Nigerian public service. *International Journal of Innovative Research & Development*, *2*(8), 161-169

Mumford, M. D., Scott, G. M., Gaddis, B., & Strange, J. M. (2002). Leading creative people: Orchestrating expertise and relationships. *The Leadership Quarterly*, 13, 705−750.

Naami, A. & Asadi, P. (2011). Study on the mediating role of innovative climate in the relationship between transformational leadership style and innovative behavior of an industrial company workers in Khoozestan. *Australian Journal of Basics and Applied Sciences*, *5*(12), 861-866.

Naguib, H. M., & Naem, A. E. H. M. A. (2018). The impact of Transformational leadership on the organisational innovation. *The International Journal of Social Sciences and Humanities Invention*, *5*(1), 4337-4343.

Namara, R., Karyeija, G.K. & Mubangizi, B. (2015). Network governance and capacity of local governments to deliver LED in Uganda. *Commonwealth Journal of Local Governance, 16*(18), 82-107.

Naqvi, J. A., Ullah, S., & Javed, B. The Mediating Role of Employees' Creativity. *European Journal of Business and Management, 9*(28), 27-37.

Neelankavil, J. P. (2015). *International business research*. Routledge.

Neuman, D. (2014). Qualitative research in educational communications and technology: A brief introduction to principles and procedures. *Journal of Computing in Higher Education*, *26*(1), 69-86.

Nguyen, N. T., & Umemoto, K. (2009). Understanding leadership for cross-cultural knowledge management. *Journal of Leadership Studies*, *2*(4), 23-35.

Nijenhuis, K. (2015). *Impact factors for innovative work behavior in the public sector: the case of the Dutch Fire Department* (Master's thesis, University of Twente).

Nitzl, C., Roldan, J. L., & Cepeda, G. (2016). Mediation analysis in partial least squares path modeling: Helping researchers discuss more sophisticated models. *Industrial management and Data Systems, 116*(9), 1849-1864.

Novac, C., & Bratanov, C. I. (2014). The impact of the leadership style on the organisational climate in a public entity. *Management Dynamics in the Knowledge Economy*, *2*(1), 155-180.

Nunally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.

Organ, D. W. (1988). *Organisational citizenship behavior: The good solider syndrome*. Lexington, MA: Lexington Books

Osborn, R. N., Hunt, J. G., & Jauch, L. R. (2002). Toward a contextual theory of leadership. *The Leadership Quarterly*, *13*(6), 797-837.

Otoo, I. (2017). *Fiscal Decentralisation and Efficiency of Metropolitan, Municipal and District Assemblies (MMDAS) In Ghana* (Doctoral dissertation, University of Ghana).

Owusu, N. O., & Appiah, M. O. (2014). Ghana's System of Local Government Administration as a Barrier to Collaborative Public Management. *Journal of Contemporary Management*, *4*(1), 58-70.

Pablo, A. L., Reay, T., Dewald, J. R., & Casebeer, A. L. (2007). Identifying, enabling and managing dynamic capabilities in the public sector. *Journal of Management Studies*, *44*(5), 687-708.

Pallant, J. (2016) *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS Program* (6th e.d). London: McGraw-Hill Ediucation

Park, S., & Jo, S. J. (2018). The impact of proactivity, leader-member exchange, and climate for innovation on innovative behavior in the Korean government sector. *Leadership & Organization Development Journal*, *39*(1), 130-149.

Patanakul, P., & Pinto, J. K. (2014). Examining the roles of government policy on innovation. *The Journal of High Technology Management Research*, *25*(2), 97-107.

PBL Netherlands Environmental Assessment Agency, & Hajer, M. (2011). *The energetic society. In search of a governance philosophy for a clean economy*. The Hague: PBL Netherlands Environmental Assessment Agency.

Perry, C., LeMay, N., Rodway, G., Tracy, A., & Galer, J. (2005). Validating a work group climate assessment tool for improving the performance of public health organizations. *Human Resources for Health*, *3*(1), 10.

Piening, E. P. (2013). Dynamic capabilities in public organizations: A literature review and research agenda. *Public Management Review*, *15*(2), 209-245.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organisational research: Problems and prospects. *Journal of Management*, *12*(4), 531-544.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879.

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organisational citizenship behaviors. *The Leadership Quarterly*, *1*(2), 107-142.

Porter, L. W., & McLaughlin, G. B. (2006). Leadership and the organisational context: like the weather?. *The Leadership Quarterly*, *17*(6), 559-576.

Pradhan, S., & Pradhan, R. K. (2015). An empirical investigation of relationship among transformational leadership, affective organisational commitment and contextual performance. *Vision*, *19*(3), 227-235.

Puopiel, F., & Chimsi, M. (2015). Mobilising internally generated funds to finance development projects in Ghana's Northern Region. *Commonwealth Journal of Local Governance*, 147-160

Radaelli, G., Lettieri, E., Mura, M., & Spiller, N. (2014). Knowledge sharing and innovative work behaviour in healthcare: A micro-level investigation of direct and indirect effects. *Creativity and Innovation Management*, *23*(4), 400-414.

Radu, C., Deaconu, A., & Frăsineanu, C. (2017). Leadership and Gender Differences—Are Men and Women Leading in the Same Way?. *Contemporary Leadership Challenges*, 63.

Raja, U. & Johns, G. (2010). The joint effects of personality and job scope on in-role performance, citizenship behaviors, and creativity. *Human Relations*, *63*, 981–1005.

Rank, J., Nelson, N. E., Allen, T. D., & Xu, X. (2009). Leadership predictors of innovation and task performance: Subordinates' self-esteem and self-presentation as moderators. *Journal of Occupational and Organisational Psychology*, *82*(3), 465-489.

Rasoolimanesh, S. M., Jaafar, M., Kock, N., & Ramayah, T. (2015). A revised framework of social exchange theory to investigate the factors influencing residents' perceptions. *Tourism Management Perspectives*, *16*, 335-345.

Ratyan, A., T., & Mohd, R., A. (2013). Overview of path-goal leadership theory. *Comprehensive Research Journal of Management and Business Studies, 1*(1), 1–6.

Ravand, H., & Baghaei, P. (2016). Partial least squares structural equation modeling with R. *Practical Assessment, Research & Evaluation*, *21*(11), 1-16.

Renko, M., A. E. Tarabishy, A. L. Carsrud, & M. Brannback (2015). Understanding and Measuring Entrepreneurial Leadership Style. *Journal of Small Business Management, 53*(1), 54–74

Republic of Ghana. (1993). Local Government Act (Act 462).

Reuvers, M., Van Engen, M. L., Vinkenburg, C. J., & Wilson-Evered, E. (2008). Transformational leadership and innovative work behaviour: Exploring the relevance of gender differences. *Creativity and Innovation Management*, *17*(3), 227-244.

Rezaei, S. (2015). Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach. *Journal of Retailing and Consumer Services, 22*, 1-15.

Rezaei, S., & Ghodsi, S. S. (2014). Does value matters in playing online game? An empirical study among massively multiplayer online role-playing games (MMORPGs). *Computers in Human Behavior, 35*, 252-266.

Ricard, L. M., Klijn, E. H., Lewis, J. M., & Ysa, T. (2017). Assessing public leadership styles for innovation: A comparison of Copenhagen, Rotterdam and Barcelona. *Public Management Review, 19*(2), 134-156.

Rogers, E.M. (2003). *Diffusion of Innovations*, (5th ed). New York: Free Press.

Rönkkö, M., & Evermann, J. (2013). A critical examination of common beliefs about partial least squares path modeling. *Organisational Research Methods*, *16*(3), 425-448.

Ronquillo, J. C. (2011). *The climate for innovation in public and nonprofit organizations* (Doctoral dissertation, University of Georgia).

Roomi, M. A., & Harrison, P. (2011). Entrepreneurial leadership: What is it and how should it be taught? *International Review of Entrepreneurship*, *9*(3), 1-48.

Rossiter, J. R. (2002). The C-OAR-SE procedure for scale development in marketing. *International Journal of Research in Marketing*, *19*(4), 305-335.

Salas-Vallina, A., Ferrer-Franco, A., & Fernandez Guerrero, R. (2018). Altruistic leadership and affiliative humor's role on service innovation: Lessons from Spanish public hospitals. *The International Journal of Health Planning and Management*, *33*(3), 861-872.

Sarros, J. C., Cooper, B. K., & Santora, J. C. (2008). Building a climate for innovation through transformational leadership and organizational culture. *Journal of Leadership & Organizational Studies, 15*(2), 145-158.

Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students*. England: Pearson Education Limited.

Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students*. Harlow, Essex, England: Pearson Education Limited.

Schneider, B. (1990). *Organisational climate and culture*. Pfeiffer.

Schulte, K., Hauser, F., & Kirsch, J. (2009). What makes companies good employers? Empirical findings on the most important determinants of a successful workplace culture. *Business psychology*, *11*(3), 17-30.

Schumpeter, J. A. (1934). *The Theory of Economic Development.* Cambridge, Mass: Harvard University Press.

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal*, *37*(3), 580-607.

Scott, S. G., & Bruce, R. A. (1998). Following the leader in R&D: The joint effect of subordinate problem-solving style and leader-member relations on innovative behavior. *IEEE Transactions on Engineering Management*, *45*(1), 3-10.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

Shahijan, M. K., Rezaei, S., Preece, C. N., & Ismail, W. K. W. (2015). International medical travelers' behavioral intention: An empirical study in Iran. *Journal of Travel & Tourism Marketing*, *32*(5), 475-502.

Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, *15*(1), 33-53.

Si, S., & Wei, F. (2012). Transformational and transactional leaderships, empowerment climate, and innovation performance: A multilevel analysis

in the Chinese context. *European Journal of Work and Organisational Psychology*, *21*(2), 299-320.

Simmons, R. G. (1991). Presidential address on altruism and sociology. *The Sociological Quarterly*, *32*(1), 1-22.

Soieb, A. Z. M., Othman, J., & D'Silva, J. L. (2013). The effects of perceived leadership styles and organisational citizenship behaviour on employee engagement: The mediating role of conflict management. *International Journal of Business and Management*, *8*(8), 91.

Somech, A., & Drach-Zahavy, A. (2013). Translating team creativity to innovation implementation: The role of team composition and climate for innovation. *Journal of Management*, *39*(3), 684-708.

Sørensen, E., & Torfing, J. (2018). Co-initiation of collaborative innovation in urban spaces. *Urban Affairs Review*, *54*(2), 388-418.

Speek, R. (2017). *Exploring the effect of network governance on the facilitation of urban innovation: an evaluative case study on City Deals* (Master's thesis).

Staub, E. (1991). A conception of the determinants and development of altruism and aggression: Motives, the self, and the environment. *Altruism and aggression: Biological and Social Origins*, 135-164.

Staub, E. (1992). The origins of caring, helping, and nonaggression: Parental socialization, the family system, schools, and cultural influence. *Embracing the other: Philosophical, psychological, and historical perspectives on altruism*, 390-412.

Staw,B.M.(1990).An evolutionary approach to creativity and innovation. In: M.W.West & J. L. Farr (Eds), Innovation and creativity at work: *Psychological and Organizational Strategies* (pp. 287–308).NewYork: Wiley

Steward, J. (2014). Sustaining emotional resilience for school leadership. *School Leadership & Management*, *34*(1), 52-68.

Stogdill, R. M. (1974). *Handbook of leadership: A survey of theory and research*. Free Press.

Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society: Series B (Methodological)*, *36*(2), 111-133.

Subramaniam, I. D. (2012). Determinant of Innovative Behavior in the Workplace. *American Journal of Social Issues and Humanities*, *2*(6), 384-397.

Sullivan, E. J., & Decker, P. J. (2001). *Effective leadership and management in nursing*. Upper Saddle River, NJ: Prentice Hall.

Surie, G., & Ashley, A. (2008). Integrating pragmatism and ethics in entrepreneurial leadership for sustainable value creation. *Journal of Business Ethics*, *81*(1), 235-246.

Suseno, Y., Standing, C., Gengatharen, D., & Nguyen, D. Innovative work behaviour in the public sector: The roles of task characteristics, social support, and proactivity. *Australian Journal of Public Administration*.

Tekleab, A. G., & Chiaburu, D. S. (2011). Social exchange: Empirical examination of form and focus. *Journal of Business Research*, *64*(5), 460-466.

Torugsa, N., & Arundel, A. (2016). The nature and incidence of workgroup innovation in the Australian public sector: evidence from the Australian 2011 state of the service survey. *Australian Journal of Public Administration*, *75*(2), 202-221.

Trah, G. (2004). Business development services and local economic development. *Programme description of GTZ Local Economic Development & Business Development Services Programme, GTZ South Africa Office*.

Tummers, L. G., & Knies, E. (2013). Leadership and meaningful work in the public sector. *Public Administration Review*, *73*(6), 859-868.

Tummers, L., & Knies, E. (2016). Measuring public leadership: Developing scales for four key public leadership roles. *Public Administration*, *94*(2), 433-451.

Van Dierendonck, D. (2011). Servant leadership: A review and synthesis. *Journal of Management*, *37*(4), 1228-1261.

Van Wart, M. (2013). Lessons from leadership theory and the contemporary challenges of leaders. *Public Administration Review*, *73*(4), 553-565.

Veld, M., Paauwe, J. and Bosalie, P. (2010). 'HRM and strategic climates in hospitals: does the message come across at the ward level?'. *Human Resource Management Journal*, *20*(4), 339–356.

Villoria, M., & Iglesias, Á. (2011). Leadership in public management: some theoretical and methodological considerations. *Innovar*, *21*(42), 175-189.

Waheed, A., Abbas, Q., & Malik, O. (2018). 'Perceptions of Performance Appraisal Quality'and Employee Innovative Behavior: Do Psychological Empowerment and 'Perceptions of HRM System Strength'Matter?. *Behavioral Sciences*, *8*(12), 114.

Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organisational support and leader-member exchange: A social exchange perspective. *Academy of Management journal*, *40*(1), 82-111.

West, M. A., & Farr, J. L. (1990). Innovation at work, Innovation creativity at work. *Psychological and organizational strategies*, 3-13.

Wilfredo Bohorquez Lopez, V., & Esteves, J. (2013). Acquiring external knowledge to avoid wheel re-invention. *Journal of Knowledge Management*, *17*(1), 87-105.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organisational creativity. *Academy of management review*, *18*(2), 293-321.

World Bank (2010). *Ghana's New Approach to Public Sector Reform: Focusing on Delivery*. Washington, DC: World Bank.

Wyk, M. M. V. (2010). Do student teams achievement divisions enhance economic literacy? a quasi-experimental design. *Journal of Social Sciences*, *23*(2), 83-89.

Xerri, M. J., & Brunetto, Y. (2013). Fostering innovative behaviour: The importance of employee commitment and organisational citizenship behaviour. *The International Journal of Human Resource Management*, *24*(16), 3163-3177.

Xie, Y., Xue, W., Li, L., Wang, A., Chen, Y., Zheng, Q., & Li, X. (2018). Leadership style and innovation atmosphere in enterprises: An empirical study. *Technological Forecasting and Social Change*, *135*, 257-265.

Yates, L. (2004). *What does good education research look like?: Situating a field and its practices*. McGraw-Hill Education (UK).

Yuan, F., & Woodman, R. W. (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of management journal*, *53*(2), 323-342.

Yulk, G. (2006). *Leadership in organizations (6th e.d).* Upper Saddle River, NJ: Prentice Hall.

Zhang, Y., Zheng, J., & Darko, A. (2018). How does transformational leadership promote innovation in construction? The mediating role of innovation climate and the multilevel moderation role of project requirements. *Sustainability*, *10*(5), 1506.

Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of consumer research*, *37*(2), 197-206.

Zhou, J. 2003. When the presence of creative co-workers is related to creativity: Role of supervisor close monitoring, developmental feedback, and creative personality. *Journal of Applied Psychology*, *88*, 413-422.

LIST OF APPENDICES

APPENDIX A: QUESTIONNAIRE

University of Cape Coast

College of Humanities and Legal Studies

School of Business, Department of Management

Dear Sir/Madam,

With this instrument, you are invited to participate in a research project entitled Public Leadership Behaviour and Innovative Work Behaviour, Case of Ghanaian metropoles: The Mediating Role of Organisational Climate. This is in partial fulfilment in the award of a Master's degree at the University of Cape Coast. As a result, any information given would be treated with utmost confidentiality. Please select the appropriate options for the questions by checking their corresponding boxes. Thank you for your time.

Section A: Background of respondents

1. Category of staff: [1] Government of Ghana (GOG) [2] Internally Generated Fund (IGF)
2. Sex of respondent: [1] Male [2] Female
3. Age (years) of respondent: [1] 21 and 30 [2] 31 – 40 [3] 41 –50 [4] 51 – 60 [5] Above 60
4. Level of Staff: Junior staff [ ] Senior Staff [ ] Managerial [ ]
5. Name of Metropolitan Assembly……
6. Number of years working with the Metropolitan:

   Less than 1 year [ ] 11 to 15 years [ ] 1 – 5 years [ ] 16 – 20 years

[ ] 6 – 10 years [ ] 21 years + [ ]

7.What is your highest academic qualification?

HND/Diploma [ ] First Degree [ ] Post Graduate [ ] Professional Qualification [ ]

SECTION A: PUBLIC LEADERSHIP BEHAVIOUR

Please indicate your agreement level with respect to the underlying statements of leadership behaviour of your supervisor by ticking (√) the most appropriate column: Where 1 represents the lowest agreement whilst 7 represents the highest agreement.

My supervisor…							
Altruistic leadership							
LA1… Puts the interest of the people above his own	1	2	3	4	5	6	7
LA2... Does all he can to help people	1	2	3	4	5	6	7
LA3… Sacrifice his own interest to meet the needs of others	1	2	3	4	5	6	7
LA4… Goes beyond the call of duty to help others	1	2	3	4	5	6	7
Network governance leadership							
LN1… Encourages us to maintain contacts with other organizations	1	2	3	4	5	6	7
LN2… Encourages me and my colleagues to develop new contacts	1	2	3	4	5	6	7
LN3… Stimulates me and my colleagues to regularly work together with people from our networks	1	2	3	4	5	6	7

LN4… Stimulates me and my colleagues to develop many contacts with people outside our own department	1	2	3	4	5	6	7
LN5… Spends a lot of time maintaining his / her contacts	1	2	3	4	5	6	7
LN6… Stimulates me and my colleagues to introduce others to contacts of our own networks	1	2	3	4	5	6	7
LN7… Encourages me and my colleagues to be a 'linking pin' between different organizations	1	2	3	4	5	6	7
Entrepreneurial leadership							
LE1… Open towards new ideas	1	2	3	4	5	6	7
LE2… Takes initiatives	1	2	3	4	5	6	7
LE3… Willing to risk mistakes by employees	1	2	3	4	5	6	7
LE4… Good at mobilizing resources needed for innovation	1	2	3	4	5	6	7
Transactional leadership							
T1... Tells others what to do if they want to be rewarded for work.	1	2	3	4	5	6	7
T2… Provides recognition/rewards when others reach their goals.	1	2	3	4	5	6	7
T3…. Calls attention to what others can get for what they accomplish.	1	2	3	4	5	6	7
T4... is always satisfied when others meet agreed-upon standards	1	2	3	4	5	6	7

T5… As long as things are working, my supervisor does not try to change anything	1	2	3	4	5	6	7
T6… Tells us the standards we have to know to carry out our work	1	2	3	4	5	6	7
Transformational leadership							
LI1… I have complete faith in my supervisor	1	2	3	4	5	6	7
LI2… I am proud to be associated with my supervisor	1	2	3	4	5	6	7
LI3... Makes others feel good to be around him/her	1	2	3	4	5	6	7
LM1... Expresses in a few words what we could and should do	1	2	3	4	5	6	7
LM2... Provides appealing images about what we can do	1	2	3	4	5	6	7
LM3... Helps me find meaning in my work	1	2	3	4	5	6	7
LS1... Enables others to think about old problems in new ways	1	2	3	4	5	6	7
LS2… Provides others with new ways of looking at puzzling things.	1	2	3	4	5	6	7
LS3. Gets others to rethink ideas that they had never questioned.	1	2	3	4	5	6	7
LC1... Helps others develop themselves	1	2	3	4	5	6	7
LC2... Let others know how he /she thinks we are doing	1	2	3	4	5	6	7
LC3… Gives personal attention to others who seem rejected.	1	2	3	4	5	6	7

SECTION B: Organisational climate

Please rate the following with respect to the climate in your organisation by ticking (√) the most appropriate column: Where 1 represents the lowest agreement whilst 7 represents the highest agreement.

Statements for self-assessment							
C1…There is adequate time available to pursue innovative ideas here	1	2	3	4	5	6	7
C2…There are adequate resources devoted to innovation here	1	2	3	4	5	6	7
C3…Funding to investigate creative ideas is not a problem here	1	2	3	4	5	6	7
C4…The reward system here encourages innovation	1	2	3	4	5	6	7
C5…This assembly gives me free time to pursue creative ideas during the workday	1	2	3	4	5	6	7
C6…Personnel shortages do not inhibit innovation in this assembly	1	2	3	4	5	6	7

SECTION B: Employee innovative work behaviour

Please rate your level of agreement (from 1 to 7) with the following statement, Where 1 represents the lowest agreement whilst 7 represents the highest agreement.

Statements for self-assessment							
BE1…I create new ideas for difficult issues	1	2	3	4	5	6	7

BE2…I search out new technologies, processes, working methods, techniques, and ideas.	1	2	3	4	5	6	7
BE3…I generate original solutions for problems	1	2	3	4	5	6	7
BE4…I mobilize support for innovative ideas	1	2	3	4	5	6	7
BE5…I introduce ideas into the work environment in a systematic way	1	2	3	4	5	6	7
BE6…I evaluate the utility (benefits) of innovative idea	1	2	3	4	5	6	7
BE7…I transform innovative ideas into useful applications.	1	2	3	4	5	6	7
BE8…I make organisational members enthusiastic for innovative ideas	1	2	3	4	5	6	7
BE9…I try to acquire approval for innovative ideas.	1	2	3	4	5	6	7

Thank you for your time and effort in filling this questionnaire

APPENDIX B: PERFORMANCE OF METROPOLITAN ASSEMBLIES, 2014-2019

District	SCORE 2018-19	RANK 2018-19	SCORE 2017	RANK 2017	SCORE 2016	RANK 2016	SCORE 2015	RANK 2015	SCORE 2014	SCORE 2014
Tema Metropolitan	89.3	**6**	80	**1**	77.65	**2**	76.58	**1**	68.66	**20**
Accra Metropolitan	47.2	**100**	68.48	**49**	66	**34**	65.03	**37**	67.26	**35**
Kumasi Metropolitan	53.4	**68**	68.46	**50**	65.76	**36**	54.53	**131**	53.4	**160**
Tamale Metropolitan	94.7	**4**	61.36	**159**	63.09	**65**	61.19	**58**	64.52	**52**
Sekondi-Takoradi Metropolitan	26.4	**192**	55.75	**201**	51.34	**184**	55.33	**124**	56.48	**129**
Cape Coast Metropolitan	91.1	**5**	54.3	**211**	54.82	**153**	49.07	**172**	53.07	**166**

Source: District League Table (2014,2015,2016,2017, 2018-19)

APPENDIX C: COMMON METHOD BIAS EXTRACTION

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.554	30.321	30.321	14.554	30.321	30.321
2	5.531	11.523	41.843	5.531	11.523	41.843
3	3.490	7.271	49.114	3.490	7.271	49.114
4	2.697	5.618	54.732	2.697	5.618	54.732
5	2.514	5.237	59.969	2.514	5.237	59.969
6	1.571	3.273	63.242	1.571	3.273	63.242
7	1.526	3.179	66.421	1.526	3.179	66.421
8	1.303	2.715	69.136	1.303	2.715	69.136
9	1.216	2.533	71.670	1.216	2.533	71.670
10	1.144	2.382	74.052	1.144	2.382	74.052
11	1.014	2.113	76.166	1.014	2.113	76.166
12	.878	1.829	77.994			

Extraction Method: Principal Component Analysis.

APPENDIX D

KREJCIE AND MORGAN'S SAMPLE SIZE DETERMINATION TABLE

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Krejcie, R. V., & Morgan, D. W. (1970).