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Pepperdine University
Graduate School of Education and Psychology

PERCEPTIONS OF LEADERSHIP BEHAVIORS AND INNOVATION BY SAUDI ARABIAN POLICE DIRECTORS IN THE MECCA REGION

A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Education in Organizational Leadership

by
Abdullah Mohammad Shafee

November, 2016

Diana B. Hiatt-Michael, Ed.D. – Dissertation Chairperson
This dissertation, written by

Abdullah Mohammad Shafee

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Doctoral Committee:

Diana B. Hiatt-Michael, Ed.D., Chairperson

Joan Mills-Buffehr, Ed.D. Committee Member

Sheryas Gandhi, Ed.D. Committee Member
# TABLE OF CONTENTS

| LIST OF FIGURES | viii |
| LIST OF TABLES | vii |
| DEDICATION | ix |
| ACKNOWLEDGEMENTS | x |
| VITA | xi |
| ABSTRACT | xii |

**Chapter 1: Background** ................................................................. 1

- Background of the Country of Saudi Arabia ................................ 2
- Police Department in the Mecca Region ........................................ 3
- The New Vision of the Country of Saudi Arabia ............................ 4
- Challenges for the Country of Saudi Arabia ................................. 5
- Problem Statement ....................................................................... 6
- Purpose of the Study ................................................................... 6
- Research Questions and Hypotheses ............................................ 6
- Significance of the Study ............................................................. 7
- Methodology .............................................................................. 9
- Definition of Terms .................................................................... 9
- Conceptual Framework ................................................................. 12
- Assumptions .............................................................................. 14
- Limitations of the Study ............................................................. 15
- Summary .................................................................................. 15

**Chapter 2: Literature Review** ....................................................... 17

- Creativity and Innovation ............................................................. 17
- Different Forms of Innovations ................................................... 19
- The KEYS Instrument ................................................................ 24
- Magdley and Birdi’s Instrument of Innovation ............................ 26
- Obstacles to Creativity ................................................................. 27
- Structured Systems and Innovation ............................................. 28
- Leadership ................................................................................. 29
- Definition of Leadership ............................................................. 30
- Leadership and Shared Vision ..................................................... 30
- The Influence of Leaders on Creativity and Innovation ............... 31
- Leadership and Culture ............................................................... 34
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Four Steps Model to Promote Innovation in an Organization</td>
</tr>
<tr>
<td>102</td>
<td>Final Summary</td>
</tr>
<tr>
<td>105</td>
<td>REFERENCES</td>
</tr>
<tr>
<td>115</td>
<td>APPENDIX A: The Saudi Vision 2030</td>
</tr>
<tr>
<td>122</td>
<td>APPENDIX B: The LBDQ Survey</td>
</tr>
<tr>
<td>128</td>
<td>APPENDIX C: Magdley and Birdi’s Innovation Questionnaire</td>
</tr>
<tr>
<td>133</td>
<td>APPENDIX D: Permission to Use the LBDQ Survey</td>
</tr>
<tr>
<td>134</td>
<td>APPENDIX E: Permission to Use Magadley and Birdi Innovation Survey</td>
</tr>
<tr>
<td>135</td>
<td>APPENDIX F: Permission to Conduct the Study in PDM</td>
</tr>
<tr>
<td>136</td>
<td>APPENDIX G: Letter to the Participants</td>
</tr>
<tr>
<td>138</td>
<td>APPENDIX H: IRB Approval Letter</td>
</tr>
<tr>
<td>139</td>
<td>APPENDIX I: Boxplots for Leadership and Innovation Scores</td>
</tr>
<tr>
<td>140</td>
<td>APPENDIX J: Copyright Permissions</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1.</td>
<td>Frequency Counts Based on Age (N = 95)</td>
<td>77</td>
</tr>
<tr>
<td>Table 2.</td>
<td>Frequency Counts Based on Work Experience (N = 95)</td>
<td>78</td>
</tr>
<tr>
<td>Table 3.</td>
<td>Frequency Counts Based on Education Background (N = 95)</td>
<td>78</td>
</tr>
<tr>
<td>Table 4.</td>
<td>Psychometric Characteristics for the Summated Scale Scores (N = 95)</td>
<td>79</td>
</tr>
<tr>
<td>Table 5.</td>
<td>Pearson Correlations for Innovation Scales with Leadership Scales (N = 95)</td>
<td>82</td>
</tr>
<tr>
<td>Table 6.</td>
<td>Multiple Regression Model Predicting the Total Innovation Score (N = 95)</td>
<td>83</td>
</tr>
<tr>
<td>Table 7.</td>
<td>Pearson Inter-Correlations Among the Leadership Scale Scores (N = 95)</td>
<td>84</td>
</tr>
<tr>
<td>Table 8.</td>
<td>Spearman Correlations for Innovation Scale Scores (N = 95)</td>
<td>84</td>
</tr>
<tr>
<td>Table 9.</td>
<td>Spearman Correlations for LBDQ Scale Scores (N = 95)</td>
<td>85</td>
</tr>
</tbody>
</table>
**LIST OF FIGURES**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Martins and Terblanche’s definition of creativity and innovation.</td>
<td>18</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Three components of creativity.</td>
<td>21</td>
</tr>
<tr>
<td>Figure 3</td>
<td>The impact of the organizational environment on creativity.</td>
<td>22</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Conceptual model underlying assessment of perceptions of the work environment for creativity.</td>
<td>24</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Three levels of mental programming.</td>
<td>39</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Maslow’s hierarchy of needs.</td>
<td>49</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Three levels of culture.</td>
<td>51</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Influence of organizational culture on creativity and innovation.</td>
<td>54</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Boxplots for leadership scores.</td>
<td>80</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Boxplots for innovation scores.</td>
<td>81</td>
</tr>
<tr>
<td>Figure 11</td>
<td>Four steps model to promote innovation in an organization.</td>
<td>102</td>
</tr>
</tbody>
</table>
DEDICATION

I dedicate this dissertation to my mother, Hejriah Shiban, and my father, Mohammad Shafee. From an early age, they instilled in me a desire to learn and get a quality education. Without their support and guidance, I would not be where I am today. Dad, thank you for all the kindness you spread all around you and pass on to people you know or do not know. Mom, your prayers are the power that has always opened closed doors for me and your endless love provided the structure for who I am today. You are a true leader whom I love and admire. I hope one day to be the parent for my children that you both have been for me. To my brothers and sisters and their kids who have supported me, loved me, and also guided me, I love you all and thank you all.

To my wife Weaam Alasirie, I thank you for your continuous love. This has not been an easy journey, but you were always there. To my three beautiful children Mohammad, Farah, and Warrd, you are the praiseworthy joy and flowers of my life. I am so proud of you.

My cohort members in the EDOL program were not just fellow students, they were friends and family. I know that I could not have made it through without you all. I always looked forward to Tuesdays.

To my American family, Adam Carslin, and his mother Kathy, thank you for all your help, love and support throughout the process.
ACKNOWLEDGEMENTS

I would like to acknowledge and thank my country Saudi Arabia for providing me with the scholarship that allowed me to attend the doctorate program. I would like to thank my dissertation chair, Dr. Diana Hiatt-Michael, for her continuous support and guidance during the dissertation process. Dr. Joan Millsbuffehr has been a true friend as well as a valuable committee member. Dr. Sheryas Gandhi has lent his expertise as a very valuable committee member. My friend and the first manager, Hasan Alnufaie, whose wisdom and support throughout our time together have been invaluable to me.

My work on this doctoral degree could not have been possible without the support and guidance of many individuals including Talha Abdul Majid, whom I would like to thank for wisdom and encouragement. Throughout this process Admiral Umro Alamery offered insight and support for achieving goals without criticizing. I owe thanks to the willing participants who were a source of information for this study. To the gatekeeper, Aied Alnufaie for his help; and without whom I could not have done this. I would like also to thank my brother, Nasser, for being my rock. Only you know how much your love and support has meant to me. Thank you.
VITA

EDUCATION

2000  Bachelor of Police Science, King Fahd Security College, Riadh, Saudi Arabia.

2004  Bachelor of Public Administration Management, King Abdulaziz University, Jeddah, Saudi Arabia.

2008  Master of Public Administration, King Abdulaziz University, Jeddah, Saudi Arabia.

2008  Master of Public Administration, King Abdulaziz University, Jeddah, Saudi Arabia.

2016  Ed.D. in Organizational Leadership, Pepperdine University, Malibu, California.

TRAINING ATTENDED

2009  Completed Level Four at English Language School (ELS) in San Francisco

2009  Certificate of Participation in Volunteer Program from English Language School (ELS)

2009  Certificate of Participation in Volunteer Program from English Language School (ELS)

2012  Certificate of Completion Campus Intensive English Program at University of

2012  Certificate of Completion Campus Intensive English Program at University of

2012  Certificate of Completion Campus Intensive English Program at University of

Washington in Seattle.

Completed several computer courses in Windows Office Suite, Arabic Version.

PUBLISHED PAPER


WORK EXPERIENCE

2000-Present  Officer in Ministry of the Interior Saudi Arabia.
ABSTRACT

Saudi Arabia faces many challenges, including the political instability of the Middle East as well as currently decreased oil prices. However, Saudi is ranked 83rd in the global creativity index. Thus, Saudi has developed Vision 2013 to promote innovation that includes increasing tourism. The Mecca Region is a center of tourism and the police directors will need to demonstrate creative ways to maintain safety of an increasing influx of international tourists.

The purpose of this quantitative study was to examine the perceptions of leadership behaviors by directors of police force in Mecca as measured by Leaders Behavior Descriptive Questionnaire (LBDQ) and their perceptions on innovative behaviors as measured by Magley and Birdi’s instrument. These two instruments in Arabic were personally distributed to 120 directors; 103 (86%) completed survey sets were returned. Of these, 95 were sufficiently complete for data analysis.

Demographic findings indicated that the median age of these directors was 30.5 years, median years of experience was 11, and median educational experience was Bachelors’ degree. Correlational and multiple regression analyses revealed that these leaders had moderate leadership scores and similar perceptions of innovation. The three largest correlations were between the total leadership on LBDQ and total innovation score, creativity self-efficacy, and team support for innovation. The fourth largest correction was between team support and innovation. Thus, the alternative hypotheses were accepted that these leaders’ perceptions of their leadership skills would predict their perception of innovations.

From the study, we concluded that the participating leaders believe they possess good leadership skills and have creative ideas, which are supported by their supervisors. Out of the 4 subscales of LBDQ, consideration has the strongest correlations with innovation. Thus, these
leaders feel safe to try something new without fear of negative repercussions or others criticizing them if their idea or product. In addition, these leaders expressed that they work well in teams. A four-step model to promote innovation in any organization was developed from the finding. Saudi support of education for these young leaders should assist in their realization of innovation in police work in the Mecca Region.
Chapter 1: Background

In this era, creativity is a crucial attribute that will enable organizations to survive (Adnan, 2011; Algabaa, 2015; Asad Sadi & Al-Dubaisi, 2008; Clapham, 2000; Martins & Terblanche, 2003; Medina, 2006; Navaresse, 2008; Robbins & Judge 2014). The government of Saudi Arabia has an ambitious vision for the country called Vision 2030 (see Appendix A). The main thrust of the Vision 2030 involves reducing the country’s budget dependency on oil prices. Thus, the country is planning on other ways to generate income. Increasing numbers of visitors and pilgrims to Mecca (considered the most holy city for all Muslim people around the world) is a great source for that income. The government realizes that in order to achieve its goal, it needs to improve the quality of the services that its employees provide for people, hence improving the services of governmental organizations is another aspect of Vision 2030 (see Appendix A).

Besides the residents of the Mecca region, the potential visitors and pilgrims to Mecca need to feel safe and respected, otherwise the chance is slim of having this component of Vision 2030 succeed. The police department in the Mecca region (PDM) needs to be strong and innovative. This is a key part if the vision is to be achieved. To make this change happen, leaders of PDM need to be aware of their own behaviors and how these affect creativity, as well as how to change the culture of their organization to be an innovation-supportive culture.

Leaders should seek to provide whatever is required to support employees in generating new ideas and innovation. To have a creative organization, there is a need to concentrate on the human aspect of the organization, because humans are the key element for organizations to compete and improve (Amabile, Conti, Coon, Lazenby, & Herron, 1996; Navaresse, 2008). Bakkar (2003) in his study about creativity-enhancement in Saudi Arabia says that to generate new products or services to a market, an organization needs to encourage creativity. Moreover,
Algabbaa (2015) argues that despite the magnificent quantity of money Saudi Arabia has, it did not devote enough attention to enhance creativity in the country. Thus, this study was seeking to identify the influence of certain leader’s behaviors, measured by Leaders Behavior Descriptive Questionnaire (LBDQ as seen in Appendix B), on innovation in the public sector of Saudi Arabia, specifically the police department of the Mecca region, measured by Magdley and Birdi’s instrument.

Chapter I encompasses the background of the study, background of the country of Saudi Arabia, the new vision of Saudi Arabia, statement of the problem, statement of the purpose, significance of the study, definition of the terms, conceptual framework, research questions, limitations, assumptions, organizations of the study, and a summary.

**Background of the Country of Saudi Arabia**

Saudi Arabia is a Middle East monarchy located in the far west of Asia. It is the largest country in the Middle East, with a population of approximately 27 million people. It contains 13 regions (similar to the state system in the USA). In each region, there are different governorates that form from different cities or villages. Mecca and Jeddah are two of the biggest cities of the Mecca region as well as the whole country. Based on its size, the climate differs around the country, but generally it has a desert climate. Considered one of the most conservative countries, its main language is Arabic, and the primary religion is Islam (Central Department of Statistics & Information, n. d.).

Established in 1932, Saudi Arabia is considered a relatively new country with many natural resources, especially oil, which accounts for most of the country’s revenue. The Saudi government has begun to recognize that the oil at some time is going to be depleted or even be unavailable for use. Saudi citizens are the most sustainable and important resource to use for
future development of the country. Understanding citizens’ drive and how to help them to reach their potential are crucial areas for the country to improve its efficiency and improve its economy.

**Police Department in the Mecca Region**

The main job of the police department of the Mecca region (PDM) is to reduce the number of crimes within the region, as well as to arrest people who commit a crime when it occurs. Thus, the police do not really deal much with traffic or immigration laws, as there are other departments for these issues.

There is no public data that show the number of employees for the PDM. Mecca region has 17 governorates, and the headquarters of the Mecca region is located in Mecca City. Besides Mecca City, there are five governorates consider class A, meaning large (At-Tayef, Jeddah, Rabeg, Al-Laith and Al-Gunfuthah), and the rest are not as large. There are about 10 police stations for every big city. Every station contains 60 to 70 policemen. There are no policewomen in Jeddah. However, in the main office of the police department of each city there is a female section that has only female members who would be only involved if a case required interacting with women, which does not happen often.

The police force in PDM is comprised of officers and soldiers. To be an officer in the PDM, one has to have at least a bachelor’s degree. In the recent past, a soldier who served more than 10 years could qualify with a high school diploma. The qualifications have changed. To be a soldier in PDM, one has to have a minimum of a high school diploma. Since the culture of Saudi Arabia is considered a *high power distance culture*, where authority is highly respected, inside the organization people respect higher ranks, and policemen expect others to treat them with high respect, and to obey their orders (Hofstede, 2001).
The New Vision of the Country of Saudi Arabia

For most countries, enhancing the economy is one of the main goals for any government. In the country of Saudi Arabia, the economy is considered strong. In fact, the country is one of the biggest 20 economies in the world. However, the strong economy is based on extracting and selling huge amounts of oil that the country has. For many decades, the country has been the largest oil producer on the planet. As much as that was a privilege for the country, it is a serious challenge for it as well. Now the price of oil is dramatically decreasing and the country needs to diversify its income sources. Because it is obvious that the oil will not be an endless source of energy in the world, forward-thinking leaders are looking for ways to diversify economically. Technology is replacing oil, or at least reducing the dependency on it. The price of oil these days sheds light on that path. To improve the quality of life for its people, Saudi Arabia announced an ambitious vision for 2030. One of the main principles of that vision is to find more resources to support the economy and to decrease the tremendous dependency on oil prices for the country’s income (see Appendix A).

One of the most important aspects of Vision 2030 is to improve the quality as well as reducing the cost of the government’s work (see Appendix A). Thus, improving the way that the governmental organizations accomplish their tasks is critical to successfully achieving that vision. These leaders understand that “the significant need and demand for organizational change and innovation in local governance has been heightened by the challenges of decentralization, globalization, and increased citizen’s expectation” (Gross & Hambleton, 2007, p. 148).
Challenges for the Country of Saudi Arabia

Saudi Arabia faces many challenges, including the political instability of the Middle East (Dalacoura, 2012) as well as currently decreased oil prices. Hwang (2013) states that due to the competitive world market, there is a critical need for organizations and governments around the world to try promoting creativity to deal with various economic, political, and social challenges.

Florda, Mellander, and King (2015) ranked Saudi Arabia 83rd in the global creativity index (GCI). They argue that except for countries like Saudi Arabia where their main income comes from their raw material, such as oil, there is a strong correlation between a country’s economy and its GCI. Algabbaa (2015) argues that the main reason why Saudi Arabia does not have many new inventions is the lack of interest that the government provides for research and development (R&D).

Alsaqqaf (1999) states that the increasing population of Saudi Arabia is considered one of the fastest growing populations around the world. In an attempt to train and educate the new generation of Saudi Arabian people, the country has been providing an opportunity to study abroad in the best colleges and universities in the world. The goal is to improve their skills and knowledge as well as expand their experience of different cultures. However, that might not be enough for the country. Abridah (2012) argues that despite the huge investment in human resources in his country, Libya, there is a lack of creativity there. He believes the reason for that failure was the focus of improving people’s skills, but not providing them with the right environment that supports creativity. Therefore, Saudi Arabia sees a need to provide its people with the right culture so that they can enhance their ability to generate new ideas and produce new innovations, so they avoid the same outcome as occurred in Libya. Abridah (2012) argues
that unlike western culture, Arabic culture does not support curiosity, innovation, and risk taking, which are essential parts of creativity.

**Problem Statement**

Saudi Arabia faces many challenges, including the political instability of the Middle East as well as currently decreased oil prices. However, Saudi is ranked 83rd in the global creativity index. Thus, Saudi has developed Vision 2030 to promote innovation that includes increasing tourism. The Mecca Region is a center of tourism and the police directors will need to demonstrate creative ways to maintain safety of an increasing influx of international tourists.

**Purpose of the Study**

The purpose of this quantitative study was to examine the perceptions of leadership behaviors by directors of the police force in the Mecca Region as measured by Leaders Behavior Descriptive Questionnaire (LBDQ) and their perceptions on innovative behaviors as measured by Magley and Birdi’s instrument.

**Research Questions and Hypotheses**

The research questions that guided the study, and the related hypotheses, are as follows:

- **RQ 1:** What was the relationship between leadership behavior measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) (namely tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration) on innovation measured by Magdley and Birdi’s instrument in the police department in the Mecca region?

- **H₀₁:** None of the five LBDQ scores will be related to any of the nine innovation scores:
  - Creative self-efficacy,
  - Domain expertise,
o Team support for innovation,
o Team participation safety,
o Organizational support,
o Organizational flexibility,
o Idea generation,
o Idea implantation

• H₀₁: At least one of the five LBDQ will be related to at least one of the eight innovation scores or their total.

• RQ 2: What were the aspects of leadership behavior as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) (namely tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration) will predict innovation as measured by Magdley and Birdi’s instrument in police department in the Mecca region.

  • H₀₂: None of the five LBDQ aspects will predict the innovation total score.
  • H₁₂: At least one of the five LBDQ aspects will predict the innovation total score.

Significance of the Study

There was a critical need to conduct different studies on creativity from different cultures. Hwang (2013) and Abirdah (2012) claim that most of the creativity studies were conducted in western countries, so the results reflect the cultures of the west. There is a lack of studies about creativity and innovation in the Arab countries generally, and in Saudi Arabia particularly.

The global creativity index (GCI) of 2015 shows that there is a relationship between national culture and individuals’ creativity. Almost all top 10 countries (Australia, United States, New Zealand, Canada, Denmark, Finland, Sweden, Iceland, Singapore, Netherlands) are defined as a low power distance culture. Saudi Arabia was ranked at 83 in the GCI, and is defined as a
high power distance culture. In light of Abridah’s (2012) argument that Arabic culture does not support curiosity, innovation, and risk taking, which are essential parts of creativity, there was a need to investigate the reasons behind the lack of creativity in Saudi Arabia.

Most of the government departments do their work in a very traditional bureaucratic way, which (a) requires a long time for both standard and new procedures to be carried out and (b) costs enormous amounts of money. Thus, to face the new challenges, the way most governmental organizations are currently working needs to be improved, and here is where the importance of innovation can be seen. In fact, there is lack of research in the Arab world in regards to creativity in the workplace.

Besides the importance of the research on innovation in Saudi Arabia in general, research on successively applying the vision of 2030 is critical for the country, enhanced safety is important. Without safety, it is hard for any society to develop or enhance its people’s quality of life. If the society tries to improve, and the rate of crimes is high or people do not feel safe, there is no meaning for any development plan. Thus, the police leaders in the entire country of Saudi Arabia need to be part of that Vision 2030. However, the leaders of the Mecca police have more responsibility to contribute to that vision due to the potential increase of visitors and pilgrims to the holy city of Mecca. Visitors from abroad need to feel safe and respected, so the target visitors number can be reached. That is one of the most important elements to make sure this part or the new revenue for the country is achieved. The police department in the Mecca region (PDM) needs to be strong and innovative. To make this change happen, leaders of PDM need to realize how their own acts and behaviors interact with creating new ideas to improve their work, as well as encouraging them to change the culture in their organization to be a producer of new innovation.
Human beings have many opportunities for earning and improving their lives. Thus, everyone in her or his life, regardless of where or what they do, can always improve and enhance the job they do. Hiatt-Michael (2008) interviewed Ralph Tyler and asked him, “What is the purpose of life” (p. 64). His answer was that learning is the purpose of life. He went on to say, “Each generation creates new ideas and elaborate on those ideas that have previously existed. We must always remember that it is man who drives ideas, not ideas that drive man” (p. 64).

The findings of this study were intended to provide information to policymakers in general, and to be used as a tool to develop training programs in innovation by the leaders of the police department in the Mecca region. Also, the findings may help leaders of PDM to transform the workplace into one of ongoing growth creativity.

**Methodology**

A quantitative method was used in this research. A survey was administered to the sample of leaders in the police department of the Mecca region. The survey contained (a) demographic questions; (b) four items of the Leaders Behavior Descriptive Questionnaire (LBDQ), namely tolerance of uncertainty, initiation of structure, tolerance of freedom, and consideration); and (c) Magdley and Birdi’s instrument. A personal letter was sent with the survey in order to encourage the leaders to respond. All questions and associated letters were translated into Arabic.

**Definition of Terms**

To help the reader understand the context of this study, this section defines terms that are specific to this study.

**Creativity and innovation.** In many studies the terms *creativity* and *innovation* are used interchangeably; however, other theorists give different meanings for each (Adnan, 2011;
Martins & Terblanche, 2003; Tidd, 2001). Amabile et al., (1996) define creativity as “the production of novel and useful ideas in any domain” (p. 1155). In the same time, they define innovation as “the successful implementation of creative ideas within an organization” (p. 1155). However, for the purpose of this study, the definition of creativity and innovation relates to developing a product or process to improve the way the work is done, to create a new way to increase customer’s satisfaction, reduce cost, or decrease the time taken to provide a service.

**Culture.** Hofstede, Hofstede, and Minkov (1991) define culture as, “the collective programming of the mind distinguishing the members of one group or category of people from another” (p. 5). However, for the purpose of this study, culture referred to the culture of Saudi Arabia, the nation about which the study was conducted.

**Gatekeeper.** Mallette (2014) defines the gatekeeper as the person who allows a researcher to have access to the population she or he has targeted for the study. The gatekeeper in this study was a person who has a doctoral degree, held a leadership position, and has more than 30 years of work experience in the PDM. He was the connection between the researcher and the sample for the study as well as the person who distributed and collected the surveys, then mailed them to the researcher.

**LBDQ definitions.** These four terms represent the concepts measured by four subscales.

- **Tolerance of uncertainty:** This is the ability to tolerate uncertainty and postponement without anxiety or upset.
- **Initiation structure:** This clearly defines leadership roles and lets followers know what is expected.
- **Tolerance of freedom:** This allows followers scope for initiative, decision, and action.
• Consideration: This is in regards to the comfort, well-being, status, and contributions of followers.

Leadership. Northouse (2013) defines leadership as “a process whereby an individual influences a group of individuals to achieve a common goal” (p. 3). Robbins and Judge’s (2014) definition was not far from that of Northouse; they define leadership as “the ability to influence a group toward the achievement of a vision or set of goals” (p. 160). However, for the purpose of this study, the term leadership refers to people who are in positions of authority in the police department of the Mecca region.

Magdley and Birdi’s instrument of innovation definitions. These four terms represent the concepts measured by this scale.

• Creative self-efficacy: The ability to produce new and creative ideas.

• Domain expertise: The level of experience and knowledge in a specific subject matter.

• Team support for innovation: Team member support for producing and implementing creative and new ideas.

• Team participation safety: The level of team buy-in, understanding, and acceptance of innovation efforts. Team collaboration on work-related issues.

• Organizational support for innovation: Support is measured by the provided time, assistance, cooperation, and practical support.

• Organizational flexibility: The organization’s reaction to change of the organization.

• Idea generation: Conceptualizing new ideas that encompass policies, service, or products; methods to realize targets or objectives, and work procedures.
• Idea implementation: The implementation of new ideas is measured in terms of polices, service or products, methods to realize target or objectives, and work procedures.

**Organizational culture.** The most famous definition of organizational culture comes from Schein (2004), who describe organizational culture as follows:

A pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as a correct way to perceive, think, and feel in relation to those problems. (p. 17)

**Conceptual Framework**

The framework of the study was based on reviewing different literature related to the research topic, including creativity, leadership, culture (national and organizational), and organization’s structure. Different perspectives of creativity and innovation are reflected in different theories and definitions of them (Adnan, 2011; Algabaa, 2015; Asad Sadi & Al-Dubaisi, 2008; Clapham 2000; Robbins & Judge, 2014; Medina, 2006; Navaresse, 2008; Martins & Terblanche, 2003). One of the most significant studies about creativity was conducted by Amabile in 1997; she came up with her componential theory of individual creativity. That theory argues that individual creativity required the following:

• Expertise: Work-related knowledge and experiences.

• Creative thinking skills: How people perceive problems and are capable of finding new ways to overcome challenges.

• Motivation: Extrinsic motivation is not as effective as intrinsic motivation.
Linking individual creativity in the componential theory with the work environment, Amabile (1997) came up with her model of the impact of the organizational environment on creativity. In her study, Amabile describes a tool for research and theory development called KEYS. This tool was developed as a result of the collaboration between Amabile and the Center for Creative Leadership. The purpose of this tool was to help scholars who are interested in creativity to evaluate the environment that positively or negatively impacts creativity. However, the innovation measurement for this study was based on the Magdley and Birdi’s instrument of innovation. They created their questionnaire to measure different areas that affect creativity, namely creative self-efficacy, domain expertise, team support for innovation, team participation safety, organizational support, organizational flexibility, idea generation, and idea implementation.

Other parts of that study are the leadership theories. Different leadership theories that are taught in graduate schools in Pepperdine University were reviewed. One of the most significant works is that of Northouse (2013). Other works include those of Senge (2006) in regard to the importance of shared vision, Robbins and Judge (2014) on organizational behavior, and Edgar Schein (2004) on the organizational structure as well as organizational culture and leadership.

Jogulu (2010) conducted research to ascertain whether or not there is a link between a culture and the leadership style. He chose organizations from Malaysia (a high power distance culture) and Australia (a low power distance culture) as two different cultures to examine. In his research, the leaders of the organizations were from the same level of power and had the same work environment. From this research, Jogulu (2010) concluded there is a main difference in leadership style in different cultures. Transactional leadership was associated with the managers from Malaysia, while transformational leadership was associated with the Australian
managers. Thus, transactional and transformational leadership styles are considered relevant to the power distance of a culture.

Another part of the theoretical framework of this study is related to work of Stogdill (1963). He designed one of the main instruments that will be utilized for this study, the Leaders Behavior Descriptive Questionnaire (LBDQ). The work of Geert Hofstede (1984) in his famous study at the IBM Company is a principal conceptual basis for this study. Hofstede measured culture (national or organizational) in four different dimensions that will be discussed in more detail in the literature review: power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity.

Assumptions

This study assumed that the participants’ responsible were truthful and reliable. Also, there was no guiding or influence to suggest how the participants “should” answer or what the researcher expected for any of the instruments used for this study. Another assumption, based on prior research, was that in the leaders in the PDM would have low scores on the LBDQ score in tolerance of uncertainty and tolerance of freedom. Furthermore, the leaders would score high in initiation structure and consideration.

Other assumptions were that the following traits would be likely in this sample:

- Directors perform their role as managers not leaders.
- Directors do not choose or select new employees who will work directly under them.
- Some directors are not qualified for their positions. They are hired because of their family name or their relationships with organization leaders.
- Few opportunities exist to move up to the top of organizational levels.
• There is a lack of trust between employees and their managers regarding stealing their ideas. In other words, employees do not expect to get recognition for their ideas.

• Employees at all levels are expected to maintain a status quo in their jobs throughout their employment.

• In-services or additional job training is lacking at all levels.

• Directors lack transformational leadership skills in their work.

• Employees do not feel comfortable talking about their complaints or ideas with their managers because of the high power distance.

Limitations of the Study

The following are considered the most limitations most likely to impact the present study’s generalizability.

• Type of organization: This study was only of a governmental organization, specifically a police department of the Mecca region.

• Geographical part: It was conducted within the country of Saudi Arabia, so it might not apply to other countries. Moreover, this study was conducted in Mecca, one region of Saudi Arabia.

• Size: The size of the sample for the study was limited.

Summary

This chapter describes the Saudi vision for 2030. One part of that vision is to reduce the dependency on oil prices for the country’s economy. Increasing the number of visitors and pilgrims to Mecca is a great opportunity for the country’s economy. However, without having a safe environment, this vision cannot survive. Thus, improving the way the work has been done
in PDM is essential. Having an innovation culture in PDM might be the best way to improve the quality of services it provides for people of the Mecca region, whether local or visitors. Leaders of PDM need to be aware of their own behaviors and how these affect creativity, as well as how to change the culture in their organization to be an innovation-supportive culture. Thus, this study was seeking to identify the influence of (a) certain leadership behaviors as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) and (b) on innovation as measured by Magdley and Birdi’s instrument.

After stating the background of the study, the chapter articulates the statement of the problem, statement of the purpose, and the significance of the study. To avoid any confusion a reader might face, definitions of the terms used in this study were provided. Also included were a description of the conceptual framework, research questions, limitations, and assumptions.
Chapter 2: Literature Review

The first section of the chapter examines creativity and innovation, including different theories and studies that describe innovation from different perspectives. The second section reviews leadership theories and their connection to innovation. The third section describes the effect of national culture on creativity, with focus on the Arabic and in particular the Saudi culture as the main culture of this study. The last section examines organizational culture and organizational structure, and the role they play to enhance or inhibit creativity.

Creativity and Innovation

In a competitive new world, organizations cannot afford to be passive to the change around them. They need to create new ideas to adapt and be able to survive during the 21st century (Adnan, 2011; Algabbaa, 2015; Angle, 2006; Asad Sadi & Al-Dubaisi, 2008; Clapham, 2000; Martins & Terblanche, 2003; Navaresse, 2008; Robbins & Judge, 2014).

According to the Dictionary website (2016), creativity is “the ability to transcend traditional ideas, rules, patterns, relationships, or the like, and to create meaningful new ideas, forms, methods, interpretations, et cetera; Originality, progressiveness, or imagination” (para. 1). West and Farr (1990) define innovation as “the intentional introduction and application with a role, group, or organization of ideas, processes, products, or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization, or wider society” (p. 9). However, in many studies the concepts creativity and innovation were interchangeably used (Adnan, 2011; Martins & Terblanche 2003; Tidd, 2001).

Noyes (1992) claimed that creativity is the first step of innovation. Without creativity, there is no innovation, and without innovation, creativity is just ideas. Taking the same path,
Martins and Terblanche (2003) argue that creativity and innovation are a result of combining ideas, generating ideas, and implementing them (see Figure 1).

![Diagram](image)

**Figure 1.** Martins and Terblanche’s definition of creativity and innovation.


In 1996, Amabile et al. conducted one of the most significant studies about creativity. They defined creativity as “the production of novel and useful ideas in any domain” (p. 1155). At the same time, they defined innovation as “the successful implementation of creative ideas within an organization” (p. 1155). They stated that, “All innovation begins with creative ideas” (p. 1154). It is clear that the main source for new ideas is individual or team creativity. Therefore, allowing or encouraging creativity and innovation is one factor that high performing organizations have in common.
To have a creative organization, there is a need to concentrate on the human capital of the organization, because humans are the key element for organizations to compete and improve (Amabile, 1997; Navaresse, 2008; Taylor, 1964). Bakkar (2003), in his study about creativity-enhancement in Saudi Arabia, says that to generate new products or services to a market, there is a need to encourage creativity. Asad Sadi and Al-Dubaisi, (2008) stated that, "For most organizations, change is inevitable" (p. 58). However, many people do not feel comfortable with new ideas because they involve change. Drucker (1985) mentioned that innovation is normally associated with change.

A high performance organization supports and encourages its employees to be creative, and not just that, it also tries to attract creative people to work with it. Organizations that do not grow with new ideas will slowly lose their place to other competitors or will have unhappy clients. Judge and , (2014) state, “Today’s successful organizations must foster innovation and master the art of change, or they’ll become candidates for extinction” (p. 9).

Different Forms of Innovations

Balkin (1990) thinks there are three factors that identify creativity; he calls them the Three Ps: “people, process and product” (p. 29). He believes new products are a result of ideas created by people through different processes. Abridah, (2012) divided innovation into many different forms, for example:

- Product innovation: creating a new product.
- Service innovation: developing a new services or improve on an existing one.
- Process innovation: creating a new way of doing a job.
- Management innovation: applying a new technique in a management role.
- Market or positions innovations: finding or opening a new market for a product.
However, there are different questions that arise when talking about creativity. The first question is: What makes a creative person? There are many theories that try to answer this question. For example, Davis (1999) (as cited by Abidah, 2012) argues that intelligence, cognitive style, and personality are the three integrative psychological variables that a creative person possesses. Another answer was created by Amabile (1997) who states that, although part of intrinsic motivation depends on personality, my student, colleagues, and I discovered in 20 years of research that a person’s social environment can have a significant effect on that person’s level of intrinsic motivation at any point in time.

(p. 40)

In her componential theory of individual creativity, Amabile (1997) argued that there are three major components for individual creativity (see Figure 2):

- Expertise: knowledge technical, procedural, and intellectual.
- Creative thinking skills: how flexibly and imaginatively people approach problems.
- Motivation: intrinsic is more effective than extrinsic.
Figure 2. Three components of creativity.


The second question is: What are the stages for an innovation? According to Balkin (1990) who borrowed Wallas (1926) model, the four fundamental stages in creative process are:

- Preparation: gathering the requirements (including data) to accomplish a task.
- Incubation: letting the unconscious mind handle the issue that the person or group facing or looking to explore.
- Illumination: start forming new things, and be able to explain it to other.
- Verification: the level where the ideas get to the real world to face the real test to live or die.

The third question is: What can an organization do to enhance creativity? Bakkar (2003) states that to enhance creativity, there is a need to hire creative people, have the right leadership
style, have an effective communication system, and create a culture that supports creativity. Amabile et al. (1996) argued that when there is enough interest and challenges in their work, humans enjoy it, and it provides them satisfaction that will increase creativity. Linking individual creativity with the work environment, Amabile (1997) came up with her model of the impact of the organizational environment on creativity. As can be seen in the Figure 3, Amabile believes that the work environment impacts individual creativity. This impact happens via the resources, organizational motivation, and management practices.

![Figure 3](image.png)

**Figure 3.** The impact of the organizational environment on creativity.


Amabile embodied, the management practice in challenging work, work group supports, supervisors encouragement, and freedom scales. At the same time, she discussed three external factors that support internal motivation that influence creativity as:
• The person’s initial motivational state: If employees are internally motivated enough they might not depend much on the external motivation whether that motivation was positive or negative. They are enjoying the task that they are doing and the outside influence might not affect their desire to complete a project.

• The type of extrinsic motivator used: different people need different kinds of reward. Some need recognition; other might need money or promotion.

• The timing of the extrinsic motivation: In different stages of creativity’s process, external support might be more needed, such as gathering data or applying solutions.

Amabile et al. (1996) describe a tool for research and theory development, called KEYS. This tool was developed as a result of collaboration between Amabile and the Center for Creative Leadership. The purpose of this tool was to help researchers, interested in creativity, to evaluate the environment that positively or negatively impacts creativity. The measures that are expected to positively impact creativity are mentioned as “stimulant scales” (p. 1158) and those expected to negatively impact creativity are indicated as “obstacle scales” (p. 1158) (see Figure 4).

These categories were taken from two different resources: (a) review of previous research, and (b) the answers of 120 R&D scientists and technicians to what they think affect creativity. The result of that study indicates that there are five categories of work environments that influence creativity:

• Encouragement of creativity

• Autonomy of freedom

• Resources
- Pressures
- Organizational impediments to creativity

Figure 4. Conceptual model underlying assessment of perceptions of the work environment for creativity. Reprinted with permission. (see Appendix J).

The KEYS Instrument

KEYS contains of 78 items that shape 10 work environment dimensions. Four items describe management practices, two describe resources, and two describe organizational motivation to creativity. The closing two dimensions do not define the work environment; instead, they describe the perceptions of outcomes the productivity and creativity of the workplace in the organization that being analyzed (Amabile et al., 1996). These are listed below.
Management practices. These consist of the following:

- Freedom: Deciding what work to do or how to do it (i.e., controlling others’ ways of doing their work).
- Challenging work: A sense of having to work hard on tasks that require intense focus, demand one’s highest skill level, and are important projects.
- Managerial encouragement: A good leader should be a good example, set goals, support employees, value individual contributions, and show confidence in the work of members.
- Work group supports: Diversely skilled work groups that communicate trust, and help each other; who are open to new ideas and positively challenge each other’s work.

Organizational motivation. These consist of the following:

- Organizational encouragement: An organizational culture that supports creativity reward, recognition, and shared vision.
- Lack of organizational impediments: Organizational culture that does not impede creativity. Harsh criticism for new ideas, avoided of risk taking, overemphasis on the status quo.

Resources. These consist of the following:

- Sufficient resources: Access to appropriate resources: funds, material, faculties and information.
- Realistic workload pressure: Absence of extreme time pressures, unrealistic expectation for productivity and distractions from creative work.

Outcomes. These consist of the following:
• Creativity: People believe they produce creative work.
• Productivity: An efficient, effective, and productive organization.

Magdley and Birdi’s Instrument of Innovation

The measures of innovation are encompassed in Magdley and Birdi’s (2012) study. This study was grounded on various theoretical frameworks and research. It was designed to investigate factors that enable idea generation as well as idea implementation. In their study, they measured aspects that affect creativity: creative self-efficacy, domain expertise, team support for innovation, team participation safety, organizational support, organizational flexibility, idea generation, and idea implementation (see Appendix C). The measured characteristics are defined as follows:

• Creative self-efficacy: the ability to produce new and creative ideas.
• Domain expertise: the level of experience and knowledge in a specific subject matter.
• Team support for innovation: team member support for producing and implementing creative and new ideas.
• Team participation safety: the level of team buy-in, understanding, and acceptance of innovation efforts. Team collaboration on work-related issues.
• Organizational support for innovation: this support is measured by the provided time, assistance, cooperation, and practical support.
• Organizational flexibility: The organization’s reaction to change of the organization.
• Idea generation: how many new ideas have been generated in the past three months? New ideas encompass policies, services, work procedures, or products as methods to realize targets or objectives.

• Idea implementation: how many of the new ideas have been implemented in the past three months?

**Obstacles to Creativity**

Sometimes, older people and people in higher positions would resist a change the most, and they might be the reason for a decrease in the creativity. Argyris (1977) wrote, “their lives are primarily full of successes, so they have rarely experienced the embarrassment and sense of threat that comes with failure” (p. 104). Hence, showing the importance of change is a vital aspect to increase creativity. Argyris (1977) claimed the following:

people are taught to have a limited set of maps for how they must act, and they erect elaborate, defensive smoke screens that prevent themselves and anyone else from challenging either their actions or the assumptions on which they are based. (p. 121)

Amabile (2003) stated that, “Our analysis of team members’ diary entries revealed that the negative leader behaviors evoked more emotionality that the positive behaviors” (p. 3).

Moreover, Hwang (2013) argues that controlling leaders’ behaviors discourage employees from being creative. Leaders need to improve the learning ability of their employees. Since learning is a main source for creativity, an organization needs to continue to learn and improve to reach the innovation stage. Senge (2006) believed that the ability to learn faster than its competition is the most critical advantage that an organization can possess. Senge (2006) felt that to promote creativity, internal motivation plays a more important role than external motivation. When people strive to accomplish a task that they want to achieve true learning takes place.
Structured Systems and Innovation

Robbins and Judge (2014) define the organizational structure as, “How job tasks are formally divided, grouped, and coordinated” (p. 231). In fact, an organization’s structure can tell many things about the organization. Generally, a structure should have ways to maintain smooth functioning and handle conflict that might occur in an organization. A clearly structured system should work as a catalyst for innovation in an organization. Al-Beraidi and Rickards (2003) found the structural features of the firm that they studied inhibited the creativity there. Knowing the significance of the structure for an organization, and how it influences the morale and productivity, Bolman and Deal (2013) suggest that a leader deciding on a structure for the organization should think of different aspects in that organization such as the number of employees, the vision, and the size of the organization. Bakkar (2003) claims that some organizational structures are better than others for enhancing certainty. He describes flexibility as an essential element of encouraging creativity within an organization. Derksen (1998) agreed with Bakkar (2003) that flexibility and freedom were the words most used by his respondents to describe organizational designs that support creativity.

Nagubadi (2013), as well, emphasized the importance of the organization’s structure for any organization to continue the innovation process. From the previous studies, it can be concluded that to increase creativity in an organization, there is a need for a clearly structured system.

There is not one perfect structure for all organizations. Depending on the organization’s goal, every structure is different and unique. Furthermore, the structure of an organization cannot be the same forever. It needs to be reviewed for any needed updates to fit the challenges
or opportunities that the organization faces. The organizational structure of yesterday might not be ideal for today or tomorrow.

Haken (as cited in Bakkar, 2003) argues that free flow of information within an organization is a fundamental factor for enhancing creativity. It cannot be highlighted enough that if employees are vague about what they are required to accomplish, or with whom they need to follow up, it would possibly impact their performance and increase the possibility of creating conflict and decreased morale at the workplace. Bolman and Deal (2013) state that, “if employees are unclear about what they are supposed to do, they often tailor their roles to fit personal preferences instead of shaping them to meet system-wide goals. This frequently leads to trouble” (p. 72).

To show the importance of structure, Bolman and Deal (2013) state that, “clear well-understood goals, roles, and relationships and adequate coordination are essential to performance” (p. 44). Also, they wrote, “The right structure enhances team performance” (Bolman & Deal, 2013, p. 107). Senge (2006) agrees with the ideas by stating that a behavior is affected by structure, and generally people under identical systems provide almost the same products. Robbins and Judge (2014) state, “managers recognize they can handle a wider span best when employees know their job inside and out or can turn to co-workers when they have questions” (p. 235). Clear structure helps employees to accomplish their work easier and faster, and at the same time it allows leaders to be efficient and able to improve creativity in their workplace.

Leadership

Leadership is a crucial factor to build organizations that stimulate creativity and innovations. Different studies confirm the importance of setting innovation as a goal for the
organization. The more the management emphasizes this, the more likely it would positively reflect on the creative performance of the employees (Algabaa 2015; Amabile et al., 1996; Carson, Carson, & Roe, 1993; Derksen, 1998; Hemlin & Olsson, 2011; Lok & Crawford, 2001; Martins & Terblanche, 2003; Ollila, 2000; Schein, 1992).

**Definition of Leadership**

There are many different definitions for leadership. Most of them share the idea of influence over others and having a common goal. For example, Northouse (2013) defines leadership as “a process whereby an individual influences a group of individuals to achieve a common goal” (p. 3). Robbins and Judge’s (2014) definition was not far from that of Northouse; they define leadership as “the ability to influence a group toward the achievement of a vision or set of goals” (p. 160).

**Leadership and Shared Vision**

Leaders set the vision for the organization, and innovations can be part of the vision. A shared vision moves people beyond simple compliance. A community embraces common ‘pictures of the future’ that foster genuine commitment lived out in the shared experiences of people. A new vision often begins with one or two individuals; the challenge is to share that vision and transform the agency. (Hatter & Van Bockern, 2005, p. 40)

The power of shared vision has been examined in different studies. For instance, Senge (2006) does not think of a shared vision as just an idea; he believes it goes beyond that. He sees vision as this:

a force in people’s hearts, a force of impressive power. It may be inspired by an idea, but once it goes further, if it is compelling enough to acquire the support of more than one
person, then it is no longer an abstraction. It is palpable. People begin to see it as if it
exists. Few, if any, forces in human affairs are as powerful as shared vision. (p. 192)

Senge (2006) described the importance of sharing vision by arguing that “a shared vision
changes people’s relationship with the company. It is no longer “their company; it becomes our
company” (p. 192).

Generally, when an employee has his own vision, he will not be as motivated or inspired
to work towards the organization’s goal (Senge, 2006). Many people need to believe in
something bigger than themselves. Goran Carstedt, former president of Volvo Sweden and
IKEA North America, confirms the significance of shared vision by stating a goal of “having a
purpose worthy of people’s commitment” (as cited in Senge, 2006, p. 263). “The psychologist
Abraham Maslow studied high-performing teams. One of their most striking characteristics was
shared vision and purpose” (Senge, 2006, p. 194).

**The Influence of Leaders on Creativity and Innovation**

Besides setting the vision for the organization, leaders play a vital role that influences
creativity and innovation in their organizations. Murray (1992) argues organizational creativity
contains a minimum of two human acts: individual creativity and leadership. While individual
creativity delivers the new ideas, leadership contributes the encouragement and capability to
direct resources to produce and implement those ideas. Amabile (1997) argues that executives at
all levels have a strong impact on an organization’s work environment, which affect the level of
creativity in that organization. Generally, when employees are happier, they are more creative.
Robbins and Judge (2014) say that leaders need to provide the best environment for their
employees to be motivated and happy, and that will evoke creativity in them. Hwang (2013)
reviewed the results of Andrew and Farris’ (1967) study where they found that scientists’
creativity was enhanced as supervisors listened to their concern and provided them with the opportunities to share in decisions making in areas that affect them. An example of a leader who values creativity and innovation is Steve Jobs from one of the largest innovation companies in the world, Apple.

Moreover, Amabile et al. (1996) argue that to reach a higher level of creativity and innovation in their organizations, management of all levels need to not just concentrate on hiring creative individuals, but they need to provide them with the right environment that supports and evokes their creativity. Schein (2004) states that, "When we examine culture and leadership closely, we see that they are two sides of the same coin; neither can really be understood by itself" (pp. 10-11).

Ollila (2000) emphasized the important role that leadership plays in increasing creativity in an organization. Algabbaa (2015) argues that leaders can create the environments that breed and improve creativity by using their leadership skills. He says innovation and transformational leadership are connected. A transformational leader provides more engagement and interaction with their employees as well as support by offering better communication and consulting activities (Algabbaa, 2015). However, not all people in leadership positions act like leaders. Managers concentrate more on the task completion and do not provide the same attention toward peoples’ needs and their motivations. Zaleznik (as cited in Algabbaa, 2015) conducted a study of the differences between managers and leaders. One of the major findings was the risks taken. Leaders are more risk takers, whereas managers are not. Moreover, leaders care for people and are considered friendly; on the other hand, managers give more attention to the task and are not perceived as friendly.
Nagubadi (2013) agreed that creativity most of the time requires risk taking, and discovering new areas that might not have been discovered before. It is essential for organizations to take reasonable risks. Otherwise, the organization would not be able to change in ways that help it survive or compete with other organizations. Abidah (2012) agrees that risk taking is a crucial part of the creativity process. Also, Schein (2004) states that, “if one wishes to distinguish leadership from management or administration, one can argue that leadership creates and changes cultures, while management and administration act within a culture” (p. 11).

Hemlin and Olsson (2011) in their study classify leadership behaviors as three different types:

- **Task-oriented leadership.** These leaders concentrate on accomplishing the task in a routine way.
- **Relationship-oriented leaders.** They try to accomplish the task by supporting, improving, guiding, and providing power to their followers.
- **Change-oriented leaders.** They concentrate on encouraging change in their workplace by stimulating creativity and innovation.

As a result of their study, Hemlin and Olsson (2011) describe six leaders’ behaviors that seemed to encourage creativity among their followers:

- Provide expertise
- Co-ordinate group research
- Allocate tasks
- Enhance group conditions
- Improve external contacts
- Support independence
Abridah (2012) stated that six leadership behaviors that encourage creativity include the following:

- Focus on idea generation
- Support a continuous leaning culture
- Risk taking
- Tolerance of mistakes
- Support change
- Conflict handling

Amabile (2003) named four best behaviors that promote feeling of leadership support as the following:

- Monitoring effectively
- Consulting
- Supporting
- Recognizing

Another study by Derksen (1998) stated that modeling, facilitating, helping, and networking are four types of leadership roles that leaders have to improve the creativity of their employees. Hemlin, and Olsson (2011) recommend that in order to enhance creativity in R&D, leaders need to have a rewards system for their employees.

**Leadership and Culture**

Since cultures differ around the world, how people assess a successful leader differs as well. Hwang (2013) argues that favorable leadership style varies around the world based on the national culture. For example, in collectivist countries such as Saudi Arabia, the culture puts more emphasis on the group’s benefits and the loyalty to an organization.
Power distance also varies in cultures. In the USA for example, a low power distance culture, people will accept a leader that worked from lower up to a higher rank in the societal or organizational hierarchy and would see such a leader as successful, while in high power distance cultures, a leader might be expected to come from a certain class or family, and “climbing the ladder” would not be permitted. Jogulu (2010) carried out research to see if there is a link between a culture’s power distance and the leadership style. He chose organizations from Malaysia (a high power distance culture) and Australia (a low power distance culture) as two different cultures to examine his question. In his research, the leaders of the organizations were from the same level and had the same work environment. From this research, Jogulu (2010) concluded there is a main difference in leadership style in different cultures. Transactional leadership was associated with the managers from Malaysia, while transformational leadership scales were linked to the Australian managers. Jogulu states, “Organizations are managed as families where father is the head of the organization and employees are the children” (p. 715). He explains why for years employees have not been able to freely express their needs, feelings, or ideas to their leaders in work organizations.

Algabbaa (2015) argue that in Saudi Arabia there is a huge need to establish a culture that stimulates and supports creativity. Moreover, leaders and policymakers need to concentrate on having the right leadership traits that enhance creativity in their employees. Schein (2004) states that, “culture is the result of a complex group learning process that is only partially influenced by leader behavior” (p. 11).

**Leadership Style**

Al-Beraidi and Rickards (2003) state, “transformational style has attracted attention, being one that encourages innovative behaviors” (p. 14). Moreover, Kim and Yoon (2015)
emphasize the role of transactional leader in enhancing organizational innovation in local government. They argue this leadership style helps motivate employees to be more creative. Northouse (2013) stated of this leadership style, “[It] is a process that changes and transforms people. It is concerned with emotions, values, ethics, standards, and long-term goals, and includes assessing followers motives, satisfying their needs, and treating them as full human beings” (p. 185). Shin and Zhou (as cited in Hwang, 2013) found that employees would be more creative when their leaders apply the transformational leadership style.

Northouse (2013) described transformational leadership factors with the four Is:

- **Idealized influence (charisma):** the leader has a vision and inspires others to follow.
- **Inspirational motivation:** the leader helps people achieve more than what they thought they could.
- **Intellectual stimulation:** the leader helps create an atmosphere that supports creativity and generating new ideas.
- **Individualized consideration:** the leader shows special interest for every employee and provides one-on-one coaching. (p. 191)

One of the unique aspects of this leadership style is the high consideration it gives to people’s needs in the organization. Bolman and Deal (2013) said, “if you show people you don’t care, they’ll return the favor. Show them you care about them, they might surprise you” (p. 88). Also, Tichy and De Vanna (as cited in Kim & Yoon, 2015) show that transformational leaders apply change in organizations via three activities:

- Recognition of the need for change
- Creation of a vision
• Implementation of change. (p. 150)

However, Podsak, Mackenzie, Moorman, and Fetter (as cited in Kim, & Yoon, 2015), identify five features of transformational leadership that affect innovation:

• Articulate the organization’s vision.
• Provide appropriate role models.
• Promote goals and collaboration.
• Provide individualized support.
• Intellectually stimulate employees. (p. 150)

Leaders Behavior Descriptive Questionnaire (LBDQ)

This instrument was developed at Ohio State University (1963), as one of Ohio State Leadership Study’s project directed by Dr. Carroll L. Shortly. This instrument contains 100 items; each one represents a leadership behavior. These items can be grouped in 12 sub-scales. Each sub-scale consists of 5 or 10 items (statements) as follows:

1. Representation: speaks and acts as a representative of the group.
2. Demand reconciliation: reconciles conflicting demands and reduces disorder to the system.
3. Tolerance of uncertainty: is able to tolerate uncertainty and postpone without anxiety or upset.
4. Persuasiveness: uses persuasion and argument effectively; exhibits strong convictions.
5. Initiation of structure: clearly defines roles and lets followers know what is expected.
6. Tolerance of freedom: allows followers scope for initiative, decision, and action.
7. Role assumption: actively exercises the leadership role rather than surrendering leadership to others.

8. Consideration: regards the comfort, well-being, status, and contributions of followers.


10. Predictive accuracy: exhibits foresight and ability to predict outcomes accurately.

11. Integration: maintains a close-knit organization; resolves inter-member conflict.

12. Superior orientation: maintains cordial relations with superiors; has influence with them; is striving for higher status. (p. 3)

The Saudi National Culture

There are two kinds of cultures that an employee lives in: first the societal culture, and second the organizational culture. Schein (2004) stated, “Culture as a concept has had a long and checkered history” (p. 13). Hofstede (2011) distinguishes national culture from organizational culture as the first culture refers to affiliation of one country and not another, whereas the organizational culture distinguishes employees of one organization from another.

Since this study was related to Saudi Arabia as a nation as well as its people, it was suitable to provide some information about its culture. Saudi Arabia is considered one of the most conservative countries, meaning the most tradition-based and resistant to change. Its main language is Arabic, and the primary religion is Islam.

National Culture and Creativity

Hofstede et al. (1991) define culture as, “the collective programming of the mind distinguishing the members of one group or category of people from another” (p. 5). Abridah (2012) argues that based on a culture a person grew up in, it can be expected that there are
certain similar acts in their behavior as they face similar situations. He believes that the culture in which one was raised shapes the mindset from childhood and continues throughout a person’s lifetime. Hofstede, (1984) stated that, “culture determines the identity of a human group in the same way as personality determines the identity of an individual” (p. 21). Hwang (2013) states that people’s beliefs, and their behavior, influence the process of emerging and preventing new ideas. Culture does not just influence creativity at the level of organization; it goes beyond that to the entire country as well (Hoffman, as cited in Abridah, 2012). Hofstede (1994) argues that starting in childhood and throughout their lifetime, the family and schools shape people’s “mental programs.” Then, although they still have their uniqueness, in their society, they share that mental programming. Hofstede’s mental programing is divided into three different levels (see Figure 5).

![Figure 5. Three levels of mental programing.](image_url)

**Level one.** The most basic level is universal, contains the human nature need level, for example, eating, laughing, crying, and so forth. All humans share this level regardless of where they are from.

**Level two.** One step above the human nature is the culture. While people do not need to be taught their human nature because it is biologically inherited, in contrast, it can be concluded culture is learned. Different groups of people share their way or eating, laughing, or even how to express their sadness. That’s where mental programing comes in as a culture. Hofstede (1994) states that people carry different levels of cultures in their mental programming:

- A national level
- A regional and/or ethnic, religious, linguistic affiliation level
- A gender level
- A generation level
- Social class level (educational, position in society or work)
- An organization or corporate level

**Level three.** Here at the peak of the human mental programming is the personality level. In this level our behavior differs from one to another within the same culture. Depending on our personality and our mentality, it is a mix between inherited and learned behavior.

Abridah (2012) argues that despite the different kind of cultures around the globe, there are certain features that are common for all of them:

- Language. It is the main way of communication among people, and thus they can share their stories, feeling, or knowledge among themselves.
- Religion and belief. Hollensen (2007) states that for many people in different countries, religion strongly influences the values of a society. Moreover, many
people in different countries consider religion as a sensitive and unarguable topic. On the other hand, beliefs change over time. What a parent believes in, his or her children might not share a belief in (Ghauri & Cateora, 2006).

- Education system. The difference between what is right and what is wrong, what to do and what not to do, is taught in society, and the education system can be considered as one of the best tools to transfer the culture through generations and show the boundaries (Hollensen, 2007).

To determine the features of national culture, Adler and Gundersen (2008) claim that national culture encompasses three different characteristics:

- Most, if not all members of a society share it.
- It transfers from one generation to another.
- It forms people’s behaviors and their opinions of the world around them.

Isaksen, Puccio, and Treffinger (1993) explain a similar belief about creativity and how it can be impacted by multiple aspects of culture, such as politics and social interaction (p. 8). When individual creativity is supported by a culture, this helps people to be more creative.

**Hofstede Study**

Hofstede (1994) measured national culture in four dimensions:

- Power distance. Hofstede (1994) defines power distance as “the power distance between a boss B and a subordinate S in a hierarchy is the difference between the extent to which B can determine the behavior of S and the extent to which S can determine the behavior of B” (p. 72).
• Uncertainty avoidance. Intolerance of ambiguity, where people feel unsafe when they face a situation they are new to, and consider it as a threat rather than an opportunity.

• Individualism versus collectivism. In collectivist cultures, people value the relationship between themselves and the society. In collectivist cultures, family well-being comes first, so individual needs are sometimes sacrificed. On the other hand, individualist culture puts individuals’ needs first, and family or society comes after.

• Masculinity or femininity. According to Hofstede (1994) this concept is not about gender, but it is about assertiveness. Masculine culture is more assertive, whereas feminine culture is more nurturing. Saudi Arabia culture was placed on the feminine side of the spectrum.

Based on the result of his study, Abridah (2012) claimed that there is a strong relationship between power distance and creativity. Moreover, the connection between individualism and creativity was remarkable. However, his study did not find a direct connection between uncertainty avoidance, femininity, and creativity.

The Effect of Saudi Culture on Creativity

Bjerke and Al-Meer (1993) stated that, “as in other nations, Arab managers do not exist in an economic or social vacuum. They are heavily influenced by society’s social structure and by the values, norms and exceptions of its people” (p. 30). Saudi culture is mainly based on the traditions and guidelines of the Islamic religion, the holy Quran and the act of prophet Mohammed (peace be upon him) (Algabbaa, 2015). Moreover, Al-Shahi (2002) stated, “The religion of Islam is the main, though not the only, factor that shapes the Saudi culture” (p. 133).
Abridah (2012) describes the principles of Libyan culture (which are similar to Saudi culture) as follows:

- Family system is characterized by inequality in gender roles and the type of relationships between parent and their children.
- Education system is characterized by the lack of free communications between teachers and their students negatively affects the relationships among them and their learners as well as the old way of teaching which focuses the most on the memorizing and not understanding.
- Hierarchical relationships among people in general (gender, age, positions etc.).
- Self-effacement is feared, such as the fear of making a mistake and looking “like a fool” in the eyes of the society.

The national culture of Saudi Arabia might have an affect on the low (83rd) creativity ranking in the GCI. Herbig, Golden, and Dunphy (as cited in Abridah, 2012) argue that national culture might be an obstacle for people to be creative. Noyes (1992) claimed that in terms of Hofstede's four dimensions of work-related values, “it is hypothesized that innovative organizations will have lower power distance, lower uncertainty avoidance, somewhat higher levels of individualism, and somewhat lower level of masculinity relative to the levels of less innovative organizations” (p. 25). According to Noyes (1992), it seems obvious that lower power distance culture makes it easier for employees to communicate their ideas and get more support from their leaders to be more creative.

In his famous study mentioned above, Hofstede (2016) ranks Saudi Arabia as one of the highest in the world with a score of 95 in the Power Distance Index. He interprets this to mean that people accept a hierarchical order in which everybody has a place and that placement needs
no further justification. Hierarchy in an organization is seen as reflecting a system with inherent inequalities, where centralization is popular, subordinates expect to be told what to do, and the ideal boss is a benevolent autocrat (para. 1)

In Saudi Arabia, respect of subordinates is clearly understood as an advantage to people in higher positions. The higher a position held within the hierarchy, the more respect the holder of that position receives. Moreover, people of Saudi Arabia have a high respect toward any person who is older than them; the cultural norm is that the older one gets, the more respect one deserves (Shafee & Rhodes, 2016). This concept, although ingrained in the mentality of Saudi Arabian people, can actually have a negative impact on the overall country, because it is implicitly discouraged to question the decisions of leaders and their procedures, and this discourages an individual to come up with new ways or ideas to accomplish a task that he or she was assigned to complete. Thus, in an organization, the power and authority were always on the higher position. Most of the decision-making was coming from the top to the bottom. Jones and Harbert (as cited on Abridah, 2012) argue that a low power distance society is more encouraging for creativity due to its flexibility and the flow of communication and ideas.

Unlike the individualized culture of Western societies, most Middle Eastern countries, including Saudi Arabia, embrace a more collective culture where people put more emphasis on the benefit to the overall group than on ones individual needs. Hofstede (1984) ranked Saudi Arabia 74th on uncertainty avoidance, which puts Saudi culture in a high level of uncertainty avoiders, where people resist change. Bjerke and Al-Meer (1993) stated that, “Saudi Arabia scores considerably higher on power distance and uncertainty abidance; considerably lower on individualism, and relatively lower on masculinity” (p. 35). The same concept can be applied to the uncertainty avoidance, where people can be more creative when they do not fear change and
the unknown. Herrmann and Felfe (2014) maintain that there are effects of leadership style for creating an encouraging environment to improve employees’ creativity. He continues to explain the importance of open-minded societies, where people are willing to try new ideas and new approaches of doing things towards enhancing creativity. Saudi leadership style and resistance to change do not enhance creativity.

**The Change in Saudi Culture**

With the advent of social media, now the interaction between those in leadership positions and those in entry- and mid-level positions is much easier. For example, the King of the country has an account on Twitter. As a result of the new use of social media, the national culture in Saudi Arabia is changing in a way that provides a great opportunity for employees to express their ideas or concerns. Simultaneously, organizational leaders have the opportunity to interact directly with their followers to get more honest and instant feedback. Interestingly enough, these days, many Saudi leaders of government agencies have an account on Facebook or Twitter to interact with the public, including their employees. In this manner, utilization of social media could change leadership style and increase creativity in Saudi governmental organizations.

To determine elements that significantly enhance creativity in the United Arab Emirates, which is very similar to the country of Saudi Arabia, a study by Mohammad (2002) was conducted by examining 150 governmental departments. The result suggests these elements are as follows: right leadership style, more delegation, unbiased employee evaluation system, updating management styles in a scientific way, improving quality of products, cultural tolerance, and customer service based system, and enhanced creativity.

To improve the rate of innovation in Saudi Arabia, Algabbaa (2015) recommends:
• Changing the way of teaching a student from elementary to university into a way that helps the student develop critical thinking skills.

• Have more investment in human resource to encourage them to be creative. Especially, in the leadership level to help them understand and support innovation in their organizations.

• Show the public the benefit society would gain because of creating new ideas, and help them to be more open minded.

The Effect of National Culture on Organizational Culture

Zhu and Huang (as cited by Abidah, 2012) argue the national culture affects an organization that works within that country. Beside leadership style and organizational commitment, Wu and Lin (2011) identify organizational culture as one of the three aspects of organizational innovation. Abidah (2012) argues that organizational culture has a direct relationship on an employee’s creativity, and national culture has an indirect effect.

To describe his belief about the link between national and organizational culture, Abidah (2012) used a powerful analogy of a tree. He believes the national culture is the roots of that tree, and the organizational culture is the branches and leaves, which might look different from the roots, but they absorb their power and life through the roots. In fact, Adler (2008) believes that organization culture does not have as much impact on an organization’s employees as their national culture. Hofstede (1994) argues that organizational culture and national culture overlap and that they have an influence in programming people’s minds.

Lees (as cited in Abidah, 2012) argues that there are five features of a country that shape an organizational culture:
1. The political characteristics: The way of ruling the country and appointing its leaders affect the organizational culture.

2. The nature of the economy: How much money the society has, and what it does with it.

3. The legal context: It coordinates and protects both individuals, as well as how business is done and secured.

4. The sociocultural background: The values or beliefs of the country.

5. The national history of the country: It helps to determine the relationship to other countries (p. 75).

Schneider and Barsoux (2003) stated that management style, which affects the organizational culture, is highly influenced by the national culture. Then, they display that effect in six fundamental expects:

1. Architecture and design. The way that the physical building of an organization is designed.

2. The way of greeting. In many countries, handshakes are expected or the other person might be perceived as rude. However, in Saudi Arabia, outside of the close family members, persons of opposite sex should not shake hands.

3. Form of address: The way people address each other in an organization depends on their national culture, such as addressing one by their first name, last name, or a title.

4. Making contact: The personal space is not the same in different cultures. Some cultures, such as in the Middle East people are more comfortable with casual touch than people in the USA.
5. Dress code: The way different people dress differs around the world. In Saudi
most men wear a white garment (to reflect the strong sun light) that is called a
Thuab, whereas women wear black dress “to show modesty” called an Abaya.
6. Written vs. verbal contracts: In some cultures, a handshake is a deal. On the other
hand, in other cultures if it is not written on paper the contract is worthless.

Organizational Culture

Individuals are most creative when they are in the right stimulating organizational
culture. Nagubadi (2013) asserts that the right organizational culture and processes are essential
elements for creativity. One of the most popular definitions of organizational culture is given by
Schein (2004) who describes it as follows:

A pattern of shared basic assumptions that was learned by a group as it solved its
problems of external adaptation and internal integration; that has worked well enough to
be considered valid; and therefore, to be taught to new members as a correct way to
perceive, think, and feel in relation to those problems. (p. 17)

Another definition of organizational culture was by Martins and Terblanche (2003),
based on Lundy and Cowling’s (1996) work, who identified it as “the way we do things around
here” (p. 65). “Out of the many definitions suggested for organization culture, it is possible to
draw some common key elements. Mainly, there is a common thread that organization culture is
a shared phenomenon” (Dev, 2013, p. 2). Leaders need to define the culture of their
organizations, and understand it is the foundation of their employees’ productivity. Gerstner
(2003) states that, “I came to see, in my time at IBM, that culture isn't just one aspect of the
game; it is the game” (p. 182). Noyes (1992) claimed that the two concepts of creativity and
innovation are affected by organizational culture. Moreover, in their study, Al-Adaileh, and Al-Atawi (2011) emphasize the important impact of organizational culture on innovation.

Martins and Terblanche (2003) wrote that, “Organizational culture appears to have an influence on the degree to which creativity and innovation are stimulated in an organization” (p. 64). Nagubadi (2013) share an agreement with Negroponte (2003), who argued that there are two reasons why one third of the Nobel prizes went to U.S. citizens. The first reason is having a culture that does not fear failing and making mistakes, and the second reason is giving the young people an opportunity to contribute and share their ideas. In order to have creative people, we need to make sure we provide them the right environment that allows them to be creative.

Maslow’s hierarchy of needs shows how creativity and self-fulfillment cannot be obtained before basic human needs be met first (see Figure 6).

![Figure 6. Maslow’s hierarchy of needs.](image)


Generally, to be creative people, individuals need to have their basic needs fulfilled, such as love, safety, food, shelter, and so forth. When Maslow (1959) defined the concept of self-actualization in his hierarchy of need, he considered creativity as a part of it. He divided human’s needs in a hierarchy of five needs:
• The first level is the physical need of food, water, shelter, and warmth.

• The second level in the hierarchy is feeling safe and ensuring security.

• The third level of this hierarchy shows the need that people have of belonging and affiliation. Gathering and making a healthy relationship between the employees will help them to be more productive in the organization. In order to not be out of the group in an organization a newcomer tries to socialize to the new culture that he or she is coming to by mimicking his or her peers (Faerch & Kasper, 1986).

• The fourth level is the self-esteem. One way to ensure the self-esteem for employees is by giving them an opportunity to be part of the decision-making process; this will provide them the respect that they need to feel valuable to the company.

• Most interestingly is achieving the top level of Maslow’s hierarchy of needs, self-actualization (creativity).

Thus, when employees do not obtain their fundamental needs, for example having no security in their job daily, or not receiving their salary, it is simply harder for them to be creative (Maslow, 1959). Bakkar (2003) states that, “In developing countries, where organizations sometimes lack the essential requirements needed by employees, talking about self-actualization becomes pointless” (p. 157).

An interesting part of Abridah’s (2012) study was the lack of trust between employees and their management, which led to poor communications and lack of creativity. He believes that creativity needs conditions to occur, and culture might be the most important factor to influence creativity. Asad Sadi and Al-Dubaisi (2008) also stated that organizational culture has an effect on personal creativity and innovations in that organization. Schein (2004) claims that
when someone tries to understand an organizational culture she/he can find that there are three levels or layers of culture (see Figure 7). The three levels are:

- **Artifacts**: conscious, visible. They are the surface, easy to see but hard to understand.
- **Espoused values**: conscious, sometimes visible. These are goals of the organization.
- **Basic underlying assumptions**: unconscious, not visible. They are the core of an organization. Their beliefs and values (p. 24).

### Three Levels of Culture (Schein)

![Three Levels of Culture Diagram](image)

*Figure 7. Three levels of culture.*


Himes (1987) discussed his perception of the seven features of organizational culture that support creativity:

1. Good relationships between employees and their leaders.
2. Open communication.
3. Management support.
4. A system to distinguish the outlier people.
5. Enough time to think.
6. Premature criticism.
7. Tolerant of ambiguity.

Martins and Terblanche (2003) stated that, “organizational culture affects the extent to which creative solutions are encouraged, supported, and implemented” (p. 68). Ludwig (1992) claims that, “The relationship between cultural and creative expression is complex. Cultural factors clearly have a profound influence on appropriate outlets for creative expression” (p. 467).

Despite the importance of the organizational culture on the employees’ creativity, there are many procedures in place that restrict the avenues through which employees can communicate their feelings about their work environment, or to interact with their leaders. Martins and Terblanche (2003) describe the relationship between creativity and organizational culture in the following way:

- External catalyst (for example competition or complaining)
- Reactions to the external or internal issue
- Managers’ values and beliefs
- The structure of the organization
- Technology

Also, Martins and Terblanche (2003) wrote how creativity is a vital aspect of organizational survival. They also emphasized the need for leaders to establish a frame of the organization that supports creativity as a fundamental part of it. Derksen (1998) in his study came up with different characteristics that help establish an environment that encourages creativity:
- Good communication system, where information can easily flow
- High expectations.
- Willingness to take a risk
- Reward systems
- High participation
- Styles of leaderships
- Risk capital
- Flexible organizations designs
- Opportunities for creative skills training.
- Climate management
- Focus
- Enough time for thinking
- Recognition of situational variation

Tushman and O’Reilly (2002) state there are two factors in organizational culture that affect creativity and innovation:

- Thoughts: a newcomer learns what to say and how to act and react to fit into the organization.

- The basic values, assumptions, and beliefs.

Creating a creative organization is a goal that should be desirable for any leader, it does not matter if it is a profitable based organization or not. Kirkman, Lowe, and Young (1999) claim that there is not a unified measurement to distinguish if an organization is labeled as a high performance organization or not, every organization has its own measurement.
As shown in Figure 8, Martins and Terblanche (2003) presented a model that explains to what extent that the five areas of the organizational culture affect creativity and innovation.

![Diagram of organizational culture dimensions](image)

**Figure 8.** Influence of organizational culture on creativity and innovation.


These five areas are:

- **Strategy:** The vision or mission of the organization has an influence on its employees.
- **Structure:** The structure (for example; flexibility of freedom) has an effect on the employees’ creativity.
Support mechanisms: Reward employees and provide them the right resources. For example time and the right technology to help employees to be more creative.

Behavior that encourages innovation: The way mistakes are being handled, ideas generated and risk taking impact the creativity of its employees.

Communication: “Personnel must feel emotionally safe to be able to act creatively and innovatively and should therefore be able to trust one another, which in turn is promoted by open communication” (p. 73).

Schmieder-Ramirez and Mallette (2007) discussed the importance of analyzing the political environment in an organization, and they believe it could be a vital part of successfully implementing of change: “The effective leader is very cognizant of the importance of mastering such difficulties inherent in the political scene both within and outside of the organization” (p. 61). Creating an environment that supports learning for the organization’s employees leads them to encourage each other to be innovative. Doyle and Young (2007) stated that learning takes place in organizations through tow ways: formal and informal learning. To distinguish informal learning from the formal learning, they described formal learning as resulting from planned, structured courses. On the other hand, the informal learning is not under the organization’s control and normally happens outside the classroom. Such perspectives show the vital role that an organization’s culture plays in the organization’s goals to be considered as a creative organization.

To determination the culture of an organization one needs to look deep in its culture. Schein (2004) states, “Without cultural analysis, it is difficult to understand how groups are created, how they became organizations, and how they evolve throughout their existence”
Moreover, it is essential to realize the role organizational culture plays. “It affects the way in which people consciously and subconsciously think, make decisions and ultimately the way in which they perceive, feel and act” (Mushtaq, Fayyaz, & Tanveer, 2013, p. 55). Also, Schein (2004) wrote, “In this regard, culture is a mechanism of social control and can be the basis of explicitly manipulating members into perceiving, thinking, and feeling in certain ways” (pp. 19-20).

It is important that before hiring an employee in any company, the decision maker considers if the new employee will fit all the company’s needs not just one of them. Schein (2004) stated,

When one inquired about DEC’s hiring process, the answer was that every potential new member of the technical or managerial staff had to be interviewed by at least 5 to 10 people and only if that individual was acceptable to the entire set was he or she offered a job. (p. 117)

Piasecki (2013) states that, in an organization, a team has more knowledge and experience than an exceptional individual. It can be seen from the previous discussion, as much as national culture has an impact on individuals’ creativity, organizational culture has its own affect as well. Understanding and enhancing that culture helps the organization to promote innovation.

**Change Management**

Kotter (1996) indicated that creativity is associated with change and with change comes resistance. Dealing with this resistance calls upon change management theory. This theory may be applied across cultures. In a more conservative culture, like Saudi Arabia, implementing change is challenging to management leadership (Hofstede, 1984). Thus, executing new services
or procedures faces many challenges in Saudi Arabia. Therefore, leaders in Saudi Arabia may need to apply different theories of change management in order implement permanent change. In the following pages, three different change models are explained: Kurt Lewin’s three steps change model, the iceberg change model and Kotter’s eight steps for leading change.

**Kurt Lewin’s three steps change model.** Lewin’s (1947) change model might look like an easy model with three major steps, unfreezing, change and then refreezing. However, the truth is it is more complicated than that. It requires high consideration to the quality of communications regarding the needed change.

The first step of this model is to un-freeze the existing situation. It is important for employees to want the change to occur, and the best way to achieve that goal is by using an affective communicant method that shows the challenges and difficulties that will face the organization if change does not happens. After people believe in the need to change, the second step would be taken, the actual change. However, people need to be part of designing the change, so they will be more motivated to successfully implement their ideas in the change. The last step is refreezing. This phase needs time to make sure the new behavior of the employees has replaced the old one and they are mentally reprogrammed for the new way of behavior that the change required. It is needless to say these steps look easy, but it takes so much time and communication.

**The iceberg change model.** The Iceberg change model, developed by Wilfried Krüger (2010), was one of these theories. Krüger believes that often leaders, when dealing with change, look into the top of the issue, time, cost, or quality (issue management); what he calls, the surface. However, underneath the surface there are the true roots of the issue (management of
the perceptions and beliefs and power and politics management (Buller, 2014). Krüger insists leaders need to manage these principles to solve whatever issues they face.

Thus, the issue might not be just a behavior, but it is deeper in the beliefs and perceptions. Thus, to make changes happen they need to relate the change to the source of the peoples beliefs. Based on the view of this change model, people in the organization can be divided into four categories (Collins, 2001):

- Promoters: people who support the change and possibly who would benefit from it.
- Potential promoters: people who might support the change, but not sure about it yet.
- Opponents: people who are openly against the change.
- Hidden opponents: they are members who say they are supportive of the change, but the behaviors show they are not.

**Kotter’s eight steps for leading change.** In addition to the Iceberg change model, one of the most straightforward well-known change theories is Kotter’s (1996) Eight Step for leading change. The directness of Kotter’s Eight Steps can be seen in the flow of its eight steps: establishing sense of urgency, creating the guiding coalition, developing a vision and strategy, communicating the change vision, empowering broad-based action, generating short-term wins, consolidating gains and generating more change, and anchoring new approaches in the culture.

Step 1: Establishing a sense of urgency. This step began by informing the targeted society with the need for the change to happen. Highlighting the *why* helps people gain the best cooperation from their target audience. Senge (2006) felt that to promote creativity, internal motivation plays a more important role than external motivation. When people strive to
accomplish a task that they want to achieve true learning takes place. Knowing the reason of the change is a critical factor for successfully implementing a change,

Step 2: Creating the Guiding Coalition. Having the right team members to implement the change is a crucial part. Moreover, the diversity (skills, age, race, education etc.) of that team would help to find a better solution for an issue.

Step 3: Developing a vision and strategy. Having vision is key to any project. “Having a vision of your destination gets your power. Your vision is measurable and tangible. You can see it in your mind” (Caesar & Caesar, 2006, p. 41). It needs to be associated to the belief and perception of the organization members. Kotter (1996) stated, “A picture of the future with some implicit or explicit commentary on why people should try to create that future” (p. 68). Moreover, it is essential to ensured that the vision had the six characteristics of effective vision, imaginable, desirable, feasible, flexible enough, focused enough, and communicable (Kotter, 1996).

Step 4: Communicate the vision. Communicating the vision is a key for successfully implementing the change (Kotter, 1996). Moreover, the vision needs to be simple and clear, so it would get better results to communicate it (Kotter, 1996).

Step 5: Empowering broad-based action. Allocating and eliminating the obstacles is one hard part of the change, but it is essential for the success of a change (Kotter, 1996).

Step 6: Generating short-term wins. It is vital for an organization to celebrate small wins (Kotter, 1996).

Step 7: Consolidating gains and generating more change. It is vital to carefully work on expanding the change, and making sure it is sinking into the organizing new culture.
Step 8: Anchoring new approaches in the culture. To make sure the change is anchored in the organization culture, Kotter’s (1996) introduced the five-step approach.

1. Culture change comes last. The change is a result that takes time. Understanding that from the beginning is a fundamental aspect to successfully implement a change.

2. The results play the most important part for anchoring the change. The more people look, feel, and understand the benefits of the change the more strong the change will stay in the national culture.

3. It will require a lot of talk. The more people talk and hear about it, the more it will be easier for them to accept change.

4. May involve turnovers. It might require a decision of moving people whom might be against the change. This step would help to stop their negative affect to reduce the speed of the change.

5. Make decisions on succession crucial. To make sure the change that was implanted, part of the new organization culture, so the new people who get into this organization would learn that from their older employees, and it can be part of their training prior to getting the job there.

Summary

This chapter discussed a body of works related to innovation in Saudi Arabia. The first section examined creativity and innovation, including various theories and studies from different perspectives; the various forms of creativity, different theories of what make a creative person, how many stages for an innovation, and what an organization can offer to enhance creativity. Two instruments for innovation, KEYS and Magdley and Birdi’s instrument of innovation were
reviewed in detail. This section discussed the obstacles for creativity as well as the relationship between structured system and innovation.

The second section reviewed leadership theories and their effect on innovation; including the definition of leadership, leadership, and shared vision. The influence of leaders on innovation and creativity was examined. Different studies that try to describe leadership behaviors in general as well as those that encourage creativity were part of this section. The effect of leadership on the culture and leadership style was reviewed. This section concluded with a review of one of the main instruments of this study, the Leaders Behavior Descriptive Questionnaire (LBDQ).

The third section described the effect of national culture on creativity, with a focus on the Saudi culture as the main culture of this study, and on the four dimensions of national culture of Hofstede’s 1984 study. Finally, the organizational culture and human needs, different theories and features of organizational culture and change that support innovation were reviewed.
Chapter 3: Methodology

The study examined quantitative data collected specifically for this study regarding the influence of leadership behaviors as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) on their perception of innovation as measured by Magdley and Birdi’s instrument. The study was carried out in the public sector of Saudi Arabia, specifically the police department of the Mecca region. In addition, this quantitative study included data regarding the demographics of age, years of experience, and education of the Mecca region leaders who responded to this survey. The results of administrating the Leader Behavior Description Questionnaire (LBDQ), as well as Magdley and Birdi’s instrument of innovation, will be presented in this chapter.

This chapter is organized in the following headings: the qualities of the researcher; re-statement of the research questions; description of the population of the study; the sampling of leaders in those organizations; the description of the research methodology; the description the data gathering instruments; the main language of the LBDQ and the Magdley and Birdi’s instrument of innovation; validity of data gathering instruments; reliability of data gathering instrument; the data gathering procedures; translation of the (LBDQ) questionnaire and Magdley and Birdi’s instrument of innovation into Arabic language; and fulfillment of Institutional Review Board (IRB) requirements.

Qualities of the Researcher

The researcher of this study has been a Saudi employee in the police department in the Mecca region for over 15 years. In addition, the researcher had studied organizational leadership in a doctoral program at Pepperdine University in the USA, which allowed him to understand different cultures and look at his own from a different and wider perceptive. Thus, he could
perceive the possibility and the need to change culture of the leaders in his region to one focused innovation to meet the changing economy of his country Saudi Arabia. The combination of his work experience with the knowledge he gained via his program qualified him to conduct such a research to provide ideas and solutions to help his country to increase creativity in the governmental organizations.

Re-statement of Research Questions and Hypotheses

The research questions that guided the study, and the related hypotheses, are as follows:

- **RQ 1**: What was the relationship between leadership behavior measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) (namely tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration) on innovation measured by Magdley and Birdi’s instrument in the police department in the Mecca region?

- **H₀₁**: None of the five LBDQ scores will be related to any of the nine innovation scores:
  - Creative self-efficacy,
  - Domain expertise,
  - Team support for innovation,
  - Team participation safety,
  - Organizational support,
  - Organizational flexibility,
  - Idea generation,
  - Idea implantation

- **H₁**: At least one of the five LBDQ will be related to at least one of the eight innovation scores or their total.
• RQ 2: What were the aspects of leadership behavior as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) (namely tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration) will predict innovation as measured by Magdley and Birdi’s instrument in police department in the Mecca region.
  • H₀₂: None of the five LBDQ aspects will predict the innovation total score.
  • H₁₂: At least one of the five LBDQ aspects will predict the innovation total score.

Research Methodology

A quantitative study was chosen because it best suited the purposes of the research. The intent is to assess these Saudi leaders’ perceptions of their leadership behaviors and their sense of innovation. This will be measured the linear relationship between leadership behaviors and innovation by way of Pearson’s coefficient for Hypothesis 1 and the multiple linear regression equation predicting innovation outcomes based on leadership behaviors for Hypothesis 2. The quantitative research utilized a short demographic survey of participants and a long-standing leadership Behavior Descriptive Questionnaire (LBDQ) as well as Magdley and Birdi’s instrument for innovation.

Description of the Population of the Study

The researcher limited this study to the region of Mecca for the following reasons:

1. Mecca region has the holy city of Mecca in which diverse people from around the world come and do a religious ritual called the Hajj. It is one of the largest annual gatherings of people in the world, and it is obligatory for a devout Muslim to attend once in his or her life.

2. Mecca region currently has a population of more than 6 million people.
3. Mecca region contains major cities in Saudi Arabia; for example, the city of Jeddah, which is the second largest city in Saudi Arabia, after the capital city Riyadh. Moreover, it is the main entrance to Mecca and Al-Madina (the two holy cities for Muslims around the world). Thus, most pilgrims and visitors come to the country through the city of Jeddah.

4. Jeddah holds the main air and seaport for the country of Saudi Arabia. Thus, most of the goods come to the country thru this city.

5. The researcher had worked at PDM for over 15 years, and had good access to the organization. This advantage allowed him to obtain a personal gatekeeper who secured co-operation from leaders in this region.

Although Mecca region has specific characteristics, as a large gathering place of the country, the Mecca region can represent the governmental work of the whole country of Saudi Arabia.

The population of this study was the employees who worked full-time in leadership positions in the police department in the Mecca region. There was not any restriction on age or gender. However, due to the culture of Saudi Arabia there were no female leaders in the police force.

**Description of the Sampling for the Study**

In order to collect data for this study, all Saudi leaders in the PDM was targeted to participate in the study. The total targeted sample size was 120 leaders within PDM. Participants were selected using convenience sampling where the researcher selected participants based on their willingness and readiness to participate in that study (Creswell, 2013). The participants of this interview needed to meet the following criteria:

- Held a leadership position for at least one year
• Worked as full time employee in PDM
• Was a Saudi national
• Work in the police department of the Mecca region

**Definition of Data Gathering Instruments**

**Leaders Behavior Descriptive Questionnaire (LBDQ).** The Leaders Behavior Descriptive Questionnaire (LBDQ) was one part of the data gathering procedure. This instrument was developed at Ohio State University (1963) by Stogdill, as one of Ohio State Leadership Studies project in Fisher College of Business. Slightly rewording the instrument allows it to be used for leaders to evaluate their own behavior, or their followers can use it to describe their leaders’ behaviors. Almagidi (1989) argues that this instrument can be the best instrument for Arabic culture. This instrument contains 100 items; each one represents a leadership behavior. These items can be grouped in 12 sub-scales. Each sub-scale consists of 5 or 10 items (statement) as following:

1. Representation (5 questions: 1-11-21-31-41)
2. Demand reconciliation (5 questions: 51-61-71-81-91)
5. Initiation structure (10 questions: 4-14-24-34-44-54-64-74-84-94).

12. Superior orientation (10 questions: 10-20-30-40-50-60-70-80-90-100)

For the purpose of this research, only 4 of the 12 sub-scales mentioned above were used in the survey that were designed for this study. These four sub-scales are: tolerance of uncertainty, initiation structure, tolerance of freedom, and consideration. Participants needed to choose one of the five options for each items: Always = 5, Often = 4, Occasionally = 3, Seldom = 2, or Never = 1. 80 answers of the 100 items are valued thus. However, the other twenty questions. (6,12,16,26,36,42,46,53,56,57,61,62,65,66,68,71,87,91, and 97) were valued in the reverse direction: Always =1, Often = 2, Occasionally = 3, Seldom = 4, or Never = 5.

Definitions of the subscales introduced above are as follows:

1. Representation: Speaks and acts as representative of the group.

2. Demand reconciliation: Reconciles conflicting demands and reduces disorder to system.

3. Tolerance of uncertainty: Is able to tolerate uncertainty and postpone without anxiety or upset.

4. Persuasiveness: Uses persuasion and argument effectively; exhibits strong convictions.

5. Initiation of structure: Clearly defines own role, and lets followers know what is expected.


7. Role assumption: Actively exercises the leadership role rather that surrendering leadership to others.
8. Consideration: Regards the comfort, well-being, status, and contributions of followers.


10. Predictive accuracy: Exhibits foresight and ability to predict outcome accurately.

11. Integration: Maintains a closely knit organization; resolves inter-member conflict.

12. Superior orientation: Maintains cordial relations with superiors; has influence with them; is striving for higher status (p. 3).

As mentioned previously, for the purpose of this study, only 4 of the 12 subscales were incorporated in the study’s survey. These four were tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration. The reason for choosing these four subscales is that they were the most referenced items stated in the literature review: tolerance of uncertainty (Amabile et al., 1996; Abidah, 2012; Hofstede, 1994, 2001; Magadley & Birdi, 2012; Martins & Terblanche, 2003), initiation of structure (Schein, 2004; Tobbins & Judge, 2014), tolerance of freedom and consideration (Abidah, 2012; Amabile et al., 1996; Hofstede, 1984; Jogulu, 2010; Northouse, 2013; Senge, 2006;). Thus, it was evident that these four subscales were more pertinent to creativity than the other subscales. Also, by shortening the LBDQ to four subscales, it shortens this questionnaire from 100 to just 40 questions, which potentially enhances the quality of the participants’ answers by being mindful of their time since they tend to not provide the same attention to longer surveys.

Translations of the Data Gathering Instruments Into Arabic

The main language that was utilized in this survey was Arabic since it is the main written and spoken language of the country of Saudi Arabia. In addition to the fact that most of the participants, even if they can spoke English, would feel more comfortable using an Arabic
version of the survey. It gave the participants a better opportunity to express freely their feelings and ideas with regards to their career, leadership and their object of creativity without worrying about making sure they understood the English terms.

**Translation of the LBDQ.** The researcher contacted the publisher of the questionnaire to use the LBDQ in this study as well as translate it into the Arabic language and obtained the permission (see Appendix D). After gaining the permission to use (LBDQ) and to translate it into the Arabic language, the researcher investigated to discover if there was an existed Arabic translation of the survey. It was found that the questionnaire had been used in the Arabic world before (1989). Thus an Arabic translated version of it was created before by Almagidi as he conducted his research. The researcher of this study tried to contact him; however, Almagidi who translated the LBDQ in to Arabic, could not reached. Therefore, the researcher of this study needed to do his own version of translation. Then, he compared it to the existing translation and they were similar with a few different words.

**Translation of the Innovation Questionnaire.** After gaining the permission to use that questionnaire, the researcher first translated the Innovation Questionnaire into the Arabic language on his own. Second, he shared his translation with two Arabic speakers in the same doctorate program that he attended. There were not many changes in the translation, mainly a few words needed to be adjusted or changed. Finally, an agreement was made to have one Arabic version of that survey. Next, the Arabic version was given to a duo-languages speaker (Arabic and English) to translate the survey from Arabic to English. When compared to the English version that was translated from the Arabic, the researcher had provided to the translator, the comparison was very close.
Validity of Data Gathering Instrument

This instrument has been used in education setting as well as business, industry and military to study supervisor-subordinate relationship (Stogdill, 1969). Construct validly for the instrument was reposted by Stogill (1969). Actors playing the roles of supervisor and workers were observed by Stogdill as they acted out these roles (Stogdill, 1969). Stogdill was able to determine validity by matching the patterns of behavior with roles played by the actors who portrayed supervisor and workers. The result supported construct validity of the sub-scales. Moreover, the number of 75 participants was a good representation of the population, which supports the validity of the study.

Reliability of Data Gathering Instrument

Based on the LBDQ manual, the reliability of the subscales was determined by a modified Kuder-Richardson formula.

Magdley and Birdi’s Instrument of Innovation

The measures of innovation are encompassed in Magdley and Birdi’s (2012) study. That study was grounded on different theoretical frameworks and researches; it was designed to investigate factors that enable idea generation as well as idea implementation. In their study, they used their questionnaire to measures aspects that affect creativity: creative self-efficacy, domain expertise, team support for innovation, team participation safety, organizational support, organizational flexibility, idea generation, and idea implementation (see Appendix C).

- Creative self-efficacy: The ability to produce new and creative ideas.
- Domain expertise: The level of experience and knowledge in a specific subject matter.
• Team support for innovation: Team member support for producing and implementing creative and new ideas.

• Team participation safety: The level of team buy-in, understanding, and acceptance of innovation efforts. Team collaboration on work-related issues.

• Organizational support for innovation: That support is measured by the provided time, assistance, cooperation, and practical support.

• Organizational flexibility: The organization’s reaction to change of the organization.

• Idea generation: How many new ideas have been generated in the past three months. New ideas encompassed policies, service, or products; methods to realize targets or objectives, and work procedures.

• Idea implementation: How many of the new ideas have been implemented in the past three months. The implementation of new ideas is measured in terms of polices, service or products, methods to realize target or objectives; and work procedures.

The participants were asked to respond to each question on a scale that has five options: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), or Strongly Disagree (1). Another category in the same survey with regards to creating or implementing new ideas had a different ranking system; A Great Deal (5) Quite A Lot (4) Moderate Amount (3) Just A Little (2), Not At All (1). Higher score signifies high innovation performance.

**Reliability and Validity of Magdley and Birdi’s Instrument**

This instrument has been used in different studies, and the alpha coefficient of reliability was measured as following: for creative efficacy was 0.81, domain expertise was 0.88, team
support was 0.83, team participation was 0.82, organizational support was 0.74, organizational flexibility was 0.81, idea generation was 0.75, idea implementation was 0.79.

**Administering the Instruments**

The researcher emailed the survey in its Arabic version to the distributor (the gatekeeper) who had a doctoral degree, held a leadership position, and more than 30 years of work experience in the PDM, because of his educational background as well as his position, he was well trained to administer the questionnaire. Then, the distributor printed out the survey, and made 120 copies of it. The survey questionnaires were in paper and pencil format (see Appendix B and Appendix C). They were handed to the participants in person. An online version was not the best option for this study due to Saudi culture, where people prefer face-to-face meetings, and personally asking them to complete the survey shows more respect and interest in the participants.

The participants were asked to complete one survey, but actually that survey was a combination of three different surveys, 40 items from the LBDQ, Magadley and Birdi’s (2012) innovation questionnaire, and demographic questions. Permission was obtained to use the LBDQ questionnaire (see Appendix D) as well as the innovation questionnaire was granted by the publishers (see Appendix E). The questionnaires were anonymous, and the demographic questions encompassed demographic information (length of time on the service, education background, age). The researcher gained permission from the Mecca police department in Saudi Arabia to conduct his study there as shown in Appendix F.

**Data Gathering Procedures**

In addition to the survey, a letter was given to the participants in this study providing them with a background of the research as well as seeking their participation in the study (see
Appendix G). However, the letter was not the only way of communication with the potential participants, a personal connection with the gatekeeper in PDM was provided to increase the potential of agreements to participate in this study. All of the participants had an explanation of the purpose of this study, and they had previously to agree to the participation. The survey that contains the Leader Behavior Descriptive Questionnaire (LBDQ) Magdley and Birdi’s instrument for innovation, and the demographics information of age, years of experience and education of was provided to the sample in PDM. All participants completed the survey at a convenient time and no payment was offered.

During a monthly meeting for 25 leaders of the PDM, the first step of distribution of the survey occurred. The meeting was held in the headquarters of PDM. The remainder ($n = 95$) of the 120 surveys were sent as a hard copy to police leaders in the different cities of Mecca region so that they independently completed the survey.

After the surveys had been completed and collected, the distributor mailed them to the researcher’s address in the USA. The researcher did not need to translate the completed surveys into English since all of data results were numeric.

**Human Subjects Protection: IRB Plan**

This study minimized any chance of risk to the participants. First, no names of the participants were used in the study. Second, the study was limited to leaders in Mecca Police Department in Mecca region, which means, based on Saudi’s law there are no participants less than 21 years old. Third, all participants were, in advance, informed that participation is completely voluntary, and they could have withdrawn at any time. Fourth, a permission of the Ohio State University, the owner of LBDQ was received, as well as permission from the publisher of Magdley and Birdi’s instrument for innovation, to use and translate the
questionnaires in this study. Fifth, permission from PDM was gained to give leaders more confidence and support on being part of that study. Sixth, the questionnaires were handed, no online access, to every participant and they were provided with a brief summary of the purpose of the study and reiteration that their participation was completely voluntary, anonymous. Finally, IRB approval was obtained through the Pepperdine University Institutional Research Board (see Appendix H).

**Summary**

This research was a correlational quantitative method study. A survey incorporating Magdley and Birdi’s instrument for innovation, demographic data, and the Leader Behavior Descriptive Questionnaire (LBDQ) instrument, designed by Ohio State University, was used in this study. This study sought to identify the influence of certain leader’s behaviors measured by LBDQ on innovation measured by Magdley and Birdi’s instrument in the public sector of Saudi Arabia, specifically the police department of the Mecca region. The sample contained different leaders in PDM. The main survey was in the Arabic language, the main language of the country of Saudi Arabia.
Chapter 4: Data Analysis and Results

This study examined quantitative data collected specifically for this research regarding the influence of leadership behaviors as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) on perception of innovation as measured by Magdley and Birdi’s instrument. The study was carried out in the public sector of Saudi Arabia, specifically the police department within the Mecca region. In addition, this quantitative study gathered data regarding the demographics of age, years of experience, and education of the Mecca region leaders who responded to this survey. Surveys for 95 respondents were utilized.

Participants

The participants were employees who worked full-time in leadership positions in the police department in the Mecca region. One hundred and twenty paper-and-pencil surveys were distributed to the population of this study, 103 were returned (85.3%). The surveys were distributed to participants during regularly scheduled departmental meetings or they were sent directly to PDM leaders. The completed surveys were returned via secure express mail for data entry and analysis using the Statistical Package for the Social Sciences (SPSS 24).

Data Analysis

Trochim (2001) argues that in most social science studies data analysis contains three major phases:

1. Data preparation – classifying and organizing the data for the process of the analysis.
2. Descriptive statistics – the phase of describing the data.
3. Inferential statistics – testing hypothesis and models to make predictions and inferences about the population. This is addressed in detail in Chapter 5.
Data preparation. After collecting the raw data, the researcher needed to make sure they were consistent and that potential errors were minimized (Kumar, 2011). The first step in the data analysis process was to give each participant a code. As was mentioned previously, 120 people began the survey; 103 surveys were collected in the package the researcher received in the mail and 91 gave valid responses to all 69 variables. Three respondents had six missing answers and one had seven missing answers. These were included because these respondents had less than 10% missing answers. Eight others had between 10 and 43 missing answers and were eliminated from the study. Missing answers were imputed using the median response for the entire sample for that survey item (Cohen, 1988). This left a total of $N = 95$ for the final sample.

Descriptive statistics. The reason for using SPSS is that it has been widely used and proven to be a powerful statistical application that allows users to read most kinds of data, analyze data, and create needed graphs and reports. Creswell (2013) argues that SPSS is statistical software that is considered a useful tool to explore data trends and to analyze responses and describe variables. The descriptive statistics are the frequency, percentage, mean, and standard deviation of the various participant demographics, LBDQ (predictor variable) and innovation (outcome variable) responses. Descriptive statistics are used to describe the basic features of the data in a study. Trochim (2001) suggested that, with descriptive statistics, a researcher describes what the data show. The most common ways to describe a single variable is with a frequency distribution. Frequency tables are most useful for inspecting the range of response and their repeated occurrence. One important use of descriptive statistics is to summarize a collection of data to provide clarity and to make the data easy to be understood.
Findings

This section presents the finding from the study. It starts with demographic information, followed by the results of the statistical analyses to evaluate the research questions and hypotheses.

Table 1

*Frequency Counts Based on Age (N = 95)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Less than 25</td>
<td>22</td>
<td>23.2</td>
</tr>
<tr>
<td></td>
<td>From 26 to 35</td>
<td>35</td>
<td>36.8</td>
</tr>
<tr>
<td></td>
<td>From 36 to 45</td>
<td>28</td>
<td>29.5</td>
</tr>
<tr>
<td></td>
<td>From 46 to 55</td>
<td>7</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>More than 56</td>
<td>3</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Table 1 displays the frequency counts for age. The ages of the respondents ranged from “less than 25 years (23.2%)” to “26 to 35 years (36.8)” to “from 36 to 45 years old (29.5) to “from 46 to 55 years (7.4)” and to “more than 56 years (3.2%)” with the median age of 30.5 years old.

Table 2 displays the frequency counts based on work experience.
Table 2

*Frequency Counts Based on Work Experience (N = 95)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Experience</td>
<td>Less than 3 years</td>
<td>20</td>
<td>21.1</td>
</tr>
<tr>
<td></td>
<td>From 4-8 years</td>
<td>27</td>
<td>28.4</td>
</tr>
<tr>
<td></td>
<td>From 9-13 years</td>
<td>36</td>
<td>37.9</td>
</tr>
<tr>
<td></td>
<td>From 14-20 years</td>
<td>8</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td>More than 21 years</td>
<td>4</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Table 2 displays the frequency counts for work experience. The work experience of the respondents ranged from “less than three years (21.1%)” to “from 4-8 years (28.4)” to “from 9-13 years (37.9)” to “from 14-20 years (8.4)”, and to “more than 21 years (4.2%)” with median of 11 years of work experience.

Table 3

*Frequency Counts based on Education Background (N = 95)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Background</td>
<td>High school</td>
<td>29</td>
<td>30.5</td>
</tr>
<tr>
<td></td>
<td>Bachelor degree</td>
<td>34</td>
<td>35.8</td>
</tr>
<tr>
<td></td>
<td>Master degree</td>
<td>23</td>
<td>24.2</td>
</tr>
<tr>
<td></td>
<td>Doctorate degree</td>
<td>9</td>
<td>9.5</td>
</tr>
</tbody>
</table>
Table 3 displays the frequency counts for education background. The education background of the respondents ranged from high school to doctorate degree. Almost 70% of respondents had earned at least a bachelor’s degree; 35.8% of them had earned their bachelor’s degree, 35.7% earned a graduate degree (24.2% hold master degree, and 9.5% earned their doctorate degree) while 30.5% had at least a high school diploma. None had less than a high school diploma.

Table 4

*Psychometric Characteristics for the Summated Scale Scores (N = 95)*

<table>
<thead>
<tr>
<th>Scale score</th>
<th>No. of items</th>
<th>M</th>
<th>SD</th>
<th>Low</th>
<th>High</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBDQ-Tolerance of Uncertainty</td>
<td>10</td>
<td>3.66</td>
<td>0.49</td>
<td>2.40</td>
<td>4.80</td>
<td>.45</td>
</tr>
<tr>
<td>LBDQ-Initiation of Structure</td>
<td>10</td>
<td>3.63</td>
<td>0.52</td>
<td>2.20</td>
<td>5.00</td>
<td>.51</td>
</tr>
<tr>
<td>LBDQ-Tolerance and Freedom</td>
<td>10</td>
<td>3.68</td>
<td>0.56</td>
<td>2.50</td>
<td>4.70</td>
<td>.59</td>
</tr>
<tr>
<td>LBDQ-Consideration</td>
<td>10</td>
<td>3.65</td>
<td>0.49</td>
<td>2.60</td>
<td>4.70</td>
<td>.44</td>
</tr>
<tr>
<td>LBDQ-Total Score</td>
<td>40</td>
<td>3.66</td>
<td>0.41</td>
<td>2.70</td>
<td>4.53</td>
<td>.81</td>
</tr>
<tr>
<td>Innovation-Creativity Self-Efficacy</td>
<td>4</td>
<td>3.33</td>
<td>0.92</td>
<td>1.75</td>
<td>5.00</td>
<td>.67</td>
</tr>
<tr>
<td>Innovation-Domain-Expertise</td>
<td>3</td>
<td>3.38</td>
<td>0.94</td>
<td>1.00</td>
<td>5.00</td>
<td>.59</td>
</tr>
<tr>
<td>Innovation-Team Support for Innovation</td>
<td>3</td>
<td>3.35</td>
<td>0.95</td>
<td>1.33</td>
<td>5.00</td>
<td>.63</td>
</tr>
<tr>
<td>Innovation-Organizational Support for Innovation</td>
<td>4</td>
<td>3.37</td>
<td>0.73</td>
<td>1.50</td>
<td>5.00</td>
<td>.41</td>
</tr>
<tr>
<td>Innovation-Organizational Flexibility</td>
<td>3</td>
<td>3.38</td>
<td>0.92</td>
<td>1.00</td>
<td>5.00</td>
<td>.51</td>
</tr>
<tr>
<td>Innovation-Ideas Generation</td>
<td>3</td>
<td>3.25</td>
<td>0.89</td>
<td>1.00</td>
<td>5.00</td>
<td>.57</td>
</tr>
<tr>
<td>Innovation-Ideas Implementation</td>
<td>3</td>
<td>3.39</td>
<td>1.08</td>
<td>1.00</td>
<td>5.00</td>
<td>.66</td>
</tr>
<tr>
<td>Innovation-Total Score</td>
<td>26</td>
<td>3.35</td>
<td>0.70</td>
<td>2.04</td>
<td>4.85</td>
<td>.91</td>
</tr>
</tbody>
</table>
Table 4 displays the psychometric characteristics for the five leadership scores and nine innovation scores. The Cronbach alpha reliability coefficients ranged in size from $\alpha = .32$ to $\alpha = .91$ with the median sized alpha being $\alpha = .58$. A common rule of thumb for acceptably sized alpha coefficients is $\alpha \geq .70$ (Cohen, 1988). The total leadership score ($M = 3.66, \alpha = .81$) and the total innovation score ($M = 3.35, \alpha = .91$) met that criteria while the other 12 scales did not. Two possible explanations for this would include the small number of survey items used to create many of the scales (often as few as three survey items) and possible subtle differences in the translated meaning of the survey items as the survey items were translated from English to Arabic.

**Testing of Statistical Assumptions**

The presence of univariate outliers for the 14 scale scores were identified using boxplots (see Figure 9 and Figure 10 and Appendix I). Only four were found.

*Figure 9. Boxplots for leadership scores.*
No multivariate outliers were identified based on Mahalanobis distance statistics. Independence of observations was achieved by the design of the study since all respondents only completed one survey (no repeated measurements). For the regression model, examination of the residuals using a frequency histogram and a P-P plot found all the residuals to be within acceptable limits (plus or minus three standard deviations). Taken together, these analyses and the relatively large sample ($N = 95$) would suggest that the statistical assumptions for Pearson correlation and multiple regression were adequately met (Cohen, 1988).

The Findings of Correlation Between the LBDQ and Innovation

**Hypothesis 1.** Null hypothesis 1 predicted that “$H_0$: None of the five LBDQ scores will be related to any of the nine innovation scores.” To test this hypothesis, Table 5 displays the Pearson correlations between the five LBDQ scores and the nine innovation scores. For the resulting 45 correlations, 30 had significant positive relationships at the $p < .05$ level. The four
largest correlations were between the total leadership score with: (a) the total innovation score \( (r = .38, p < .001) \); (b) creativity self-efficacy \( (r = .38, p < .001) \); and (c) team support for innovation \( (r = .41, p < .001) \). The fourth largest correlation was between team support for innovation with leadership consideration \( (r = .38, p < .001) \). This combination of findings provided support to reject null hypothesis 1.

Table 5

*Pearson Correlations for Innovation Scales with Leadership Scales \((N = 95)\)*

<table>
<thead>
<tr>
<th>LBDQ leadership scores</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation scale score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation total score</td>
<td>.38 ****</td>
<td>.26 **</td>
<td>.28 **</td>
<td>.33 ***</td>
<td>.36 ****</td>
</tr>
<tr>
<td>Creativity self-efficacy</td>
<td>.38 ****</td>
<td>.30 ***</td>
<td>.29 ***</td>
<td>.30 ***</td>
<td>.32 ***</td>
</tr>
<tr>
<td>Domain expertise</td>
<td>.29 ***</td>
<td>.20 *</td>
<td>.20 *</td>
<td>.25 *</td>
<td>.29 ***</td>
</tr>
<tr>
<td>Team support for innovation</td>
<td>.41 ****</td>
<td>.28 **</td>
<td>.33 ****</td>
<td>.32 ****</td>
<td>.38 ****</td>
</tr>
<tr>
<td>Team participative safety</td>
<td>.15</td>
<td>.03</td>
<td>.16</td>
<td>.15</td>
<td>.12</td>
</tr>
<tr>
<td>Organizational support for innovation</td>
<td>.31 ***</td>
<td>.17</td>
<td>.21</td>
<td>.26 **</td>
<td>.37 ****</td>
</tr>
<tr>
<td>Organizational flexibility</td>
<td>.21 *</td>
<td>.19</td>
<td>.12</td>
<td>.20</td>
<td>.16</td>
</tr>
<tr>
<td>Ideas generation</td>
<td>.33 ****</td>
<td>.23 *</td>
<td>.23</td>
<td>.29 ***</td>
<td>.31 ***</td>
</tr>
<tr>
<td>Ideas implementation</td>
<td>.24 *</td>
<td>.16</td>
<td>.19</td>
<td>.19</td>
<td>.22 *</td>
</tr>
</tbody>
</table>

* \( p < .05 \). ** \( p < .01 \). *** \( p < .005 \). **** \( p < .001 \).

\(^a\) LBDQ Scores: 1 = Total Score; 2 = Tolerance of Uncertainty; 3 = Initiation of Structure; 4 = Tolerance and Freedom; and 5 = Consideration.
Hypothesis 2. Null hypothesis 2 predicted that, “H₂₀: None of the five LBDQ aspects will predict the innovation total score.” As a preliminary analysis, Table 6 displays the Pearson inter-correlations among the five leadership scale scores. All coefficients were significant, positive correlations with many of them highly correlated with each other ($r \geq .70$) demonstrating that multicollinearity was evident (high correlations among the predictor variables) (Cohen, 1988). With that, stepwise regression was used instead of the more common multiple regression to provide a more accurate prediction equation by eliminating any redundancy among the predictor variables.

Table 6

*Multiple Regression Model Predicting the Total Innovation Score (N = 95)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.00</td>
<td>0.60</td>
<td>1.68</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>LBDQ total score</td>
<td>0.64</td>
<td>0.16</td>
<td>.38</td>
<td>3.97</td>
<td>.001</td>
</tr>
</tbody>
</table>

Final Model: $F(1, 93) = 15.74, p = .001$. $R^2 = .145$. Candidate variables = 5.

Table 6 displays the results of the stepwise multiple regression model predicting the total innovation score based on the five leadership scores. The final one-variable model was significant ($p = .001$) and accounted for 14.5% of the variance in the total innovation score. Inspection of the table found the total innovation score to be related to the total leadership score ($\beta = .38, p = .001$). This finding provided support to reject null hypothesis 2 (see Table 6). Table 7 displays the Pearson inter-correlation among the leadership scale scores.
Table 7

*Pearson Inter-Correlations Among the Leadership Scale Scores (N = 95)*

<table>
<thead>
<tr>
<th>Scale score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tolerance of Uncertainty</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Initiation of Structure</td>
<td>.32</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Tolerance and Freedom</td>
<td>.77</td>
<td>.43</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Consideration</td>
<td>.44</td>
<td>.73</td>
<td>.42</td>
<td>1.00</td>
<td>-</td>
</tr>
<tr>
<td>5. LBDQ total score</td>
<td>.79</td>
<td>.77</td>
<td>.83</td>
<td>.80</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note.* All correlations were significant at the $p < .001$ level.

Table 8

*Spearman Correlations for Innovation Scale Scores (N = 95)*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Age</th>
<th>Experience</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity Self-Efficacy</td>
<td>.08</td>
<td>.09</td>
<td>.17</td>
</tr>
<tr>
<td>Domain-Expertise</td>
<td>.13</td>
<td>.08</td>
<td>.04</td>
</tr>
<tr>
<td>Team Support for Innovation</td>
<td>.04</td>
<td>-.02</td>
<td>.12</td>
</tr>
<tr>
<td>Team Participative Safety</td>
<td>-.02</td>
<td>-.12</td>
<td>.02</td>
</tr>
<tr>
<td>Organizational Support for Innovation</td>
<td>.22</td>
<td>*.17</td>
<td>.13</td>
</tr>
<tr>
<td>Organizational Flexibility</td>
<td>.01</td>
<td>-.07</td>
<td>.06</td>
</tr>
<tr>
<td>Measure of Innovation: Ideas Generation</td>
<td>.10</td>
<td>-.03</td>
<td>.09</td>
</tr>
<tr>
<td>Measure of Innovation: Ideas Implementation</td>
<td>.17</td>
<td>.02</td>
<td>.13</td>
</tr>
<tr>
<td>Total Innovation</td>
<td>.12</td>
<td>.04</td>
<td>.15</td>
</tr>
</tbody>
</table>

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$. 
Table 8 displays the Spearman rank-ordered correlations for the nine innovation scales with age, experience, and education. For the resulting 27 correlations, one was significant at the $p < .05$ and none were of moderate strength using the Cohen (1988). Specifically, age was positively related to the organizational support for innovation scale ($r_s = .22, p < .05$).

Table 9

*Spearman Correlations for LBDQ Scale Scores (N = 95)*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Age</th>
<th>Experience</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerance of Uncertainty</td>
<td>.14</td>
<td>.22</td>
<td>.22 *</td>
</tr>
<tr>
<td>Initiation of Structure</td>
<td>.08</td>
<td>.15</td>
<td>.08</td>
</tr>
<tr>
<td>Tolerance and Freedom</td>
<td>.18</td>
<td>.19</td>
<td>.11</td>
</tr>
<tr>
<td>Consideration</td>
<td>.20</td>
<td>.20</td>
<td>.14</td>
</tr>
<tr>
<td>LBDQ Total Score</td>
<td>.17</td>
<td>.23 *</td>
<td>.15</td>
</tr>
</tbody>
</table>

* $p < .05$.  ** $p < .01$.  *** $p < .005$.  **** $p < .001$.

Table 9 displays the Spearman rank-ordered correlations for the five LBDQ scales with age, experience, and education. For the resulting 15 correlations, two was significant at the $p < .05$ and none were of moderate strength using the Cohen (1988). Specifically, experience was positively related to the LBDQ total score ($r_s = .23, p < .05$) and education was positively related to the tolerance of uncertainty score ($r_s = .22, p < .05$).
Summary

In summary, this study used surveys from 95 respondents to examine the influence of leadership behaviors as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) (namely tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration) on their perception of innovation as measured by Magdley and Birdi’s instrument. Hypothesis 1 (relationships between leadership and innovation scores) was supported (see Table 5). Hypothesis 2 (leadership scores predicting innovation score) was also supported (see Table 6). In Chapter 5, these findings will be compared to the literature, conclusions and implications will be drawn, and a series of recommendations will be made.
Chapter 5: Summary, Conclusions, and Recommendations

Summary

Problem. Saudi Arabia has an ambitious vision for 2030. One part of that vision is to reduce the dependency on oil prices for the country’s economy. Another part of that vision is increasing the number of visitors and pilgrims to Mecca. Tourism is a great opportunity to grow the country’s economy. However, without having a safe environment, tourism may be short-lived. Thus, improving the way the work is done in the police department of the Mecca region (PDM) is essential.

Developing a culture of innovation in the PDM can be an effective procedure to improve the quality of police services for local, pilgrimage Muslims, and other visitors to the Mecca region. Leaders of the PDM need to be aware of their own behaviors and how these affect the generation and implementation of creative solutions, as well as how to change the culture in their organization to be an innovation-oriented culture.

Encouraging a culture of innovation in the PDM can be the most logical and reasonable way to improve the quality of services which would, in turn, enhance the overall experiences for visitors to the Mecca region and perhaps create a better life style for those who live permanently in the area. However, in order to have a creative organization there is a need to concentrate on the human capital. The physical, psychological, and emotional well-being of human capital is the key element for any organization to compete successfully and to improve (Amabile et al., 1996; Navaresse, 2008). The leaders of the PDM must be aware of their own behaviors and how they affect creativity and innovation within their organization.

Saudi Arabia faces many challenges, including the political instability of the Middle East as well as currently decreased oil prices. However, Saudi Arabia is ranked 83rd in the global
creativity index. Thus, Saudi Arabia has developed Vision 2030 to promote innovation that includes increasing tourism. The Mecca Region is a center of tourism and the police directors will need to demonstrate creative ways to maintain safety of an increasing influx of international tourists.

**Purpose.** The purpose of this quantitative study was to examine the perceptions of leadership behaviors by directors of the police force in the Mecca Region as measured by Leaders Behavior Descriptive Questionnaire (LBDQ) and their perceptions on innovative behaviors as measured by Magley and Birdi’s instrument.

The research questions that guided the study, and the related hypotheses, are as follows:

- **RQ 1:** What was the relationship between leadership behavior measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) (namely tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration) on innovation measured by Magdley and Birdi’s instrument in the police department in the Mecca region?

- **H01:** None of the five LBDQ scores will be related to any of the nine innovation scores:
  - Creative self-efficacy,
  - Domain expertise,
  - Team support for innovation,
  - Team participation safety,
  - Organizational support,
  - Organizational flexibility,
  - Idea generation,
- Idea implantation
  - $H_a1$: At least one of the five LBDQ will be related to at least one of the eight innovation scores or their total.
  - RQ 2: What were the aspects of leadership behavior as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ) (namely tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration) will predict innovation as measured by Magdley and Birdi’s instrument in police department in the Mecca region.
  - $H_02$: None of the five LBDQ aspects will predict the innovation total score.
  - $H_a2$: At least one of the five LBDQ aspects will predict the innovation total score.

**Research methodology.** The methodology used in this research was a correlation quantitative method employing a survey procedure using a pencil and paper survey which was handed to each participant in person. A letter was included with the survey to encourage each participant to respond. This particular survey encompassed three different areas: demographic information having to do with length of time of the service with the police department, educational background, and age; the leader’s behaviors as measured by the Leaders Behavior Descriptive Questionnaire (LBDQ); and Magdley and Birdi’s instrument. All were translated into Arabic, the dominant language in Saudi Arabia, for ease in content understanding by participants. These instruments were personally distributed via the gatekeeper to 120 directors; 103 (86%) completed survey sets were returned. Of these, 95 were sufficiently complete for data analysis.
The participant group was selected using a convenience sampling procedure as the researcher selected them based on their willingness and readiness to participate (Creswell, 2013). Following completion of the surveys, they were collected by the gatekeeper and physically mailed to the researcher to begin the data analysis process.

**Major findings.** The demographical data show that 88.5% of the participants were younger than 45 years, and 87.4% of them worked less than 14 years. Of the participants, 33.7% hold postgraduate degrees (master’s or doctorate).

High numbers of the respondents believe they have creative ideas (see Table 4) with a mean of 3.25. Moreover, a higher number of them indicate their belief of having a strong support from MPD to implement their ideas with a mean of 3.35.

The data indicated that there is a statistical correlation between leadership behavior and innovation; innovation had a moderate positive correlation with the four scales on the LBDQ: tolerance of uncertainty, initiation of structure, tolerance and freedom, and consideration (see Table 5). The four largest correlations were between (a) the total leadership score with the total innovation score ($r = .38, p < .001$), (b) the total leadership score with creativity self-efficacy ($r = .38, p < .001$), (c) the total leadership score with team support for innovation ($r = .41, p < .001$), and (d) team support for innovation with leadership consideration ($r = .38, p < .001$). Finally, Table 5 shows initiation of structure had a moderate positive correlation with innovation ($r = .33, p < .005$), and it also shows the tolerance of uncertainty had the weak relationship with innovation in general. This finding provided support to reject null hypothesis 1, and Table 6 shows the total innovation score to be related to the total leadership score ($\beta = .38, p = .001$). This finding provided support for rejecting null hypothesis 2.
Conclusions

Based upon the finding of this study, the following conclusions have been drawn:

1. There is a statistical correlation between leadership behavior and innovation.
2. Of the four LBDQ subscales, consideration has the strongest correlations with innovation.
3. There was a high rate of return (86%) to the instrument.
4. Most of the participants were younger, and had less than 14 years of work experience.
5. Most of the participants were well educated with 33.7% of them holding postgraduate degrees.
6. High numbers of the respondents believe they have creative ideas and their work support their creativity.
7. Initiation of structure had an important correlation with innovation.
8. There is a weak relationship between tolerance of uncertainty and innovation in general.
9. The highest correlation in Table 5 was between the total of LBDQ, and innovation-team support for innovation.

Conclusion 1. The data indicated that there is a statistical correlation between leadership behavior and innovation. This result agrees with the results of many other studies that were reviewed in Chapter 2 of this study (Algabbaa 2015; Amabile et al., 1996; Carson, Carson, & Roe, 1993; Derksen, 1998; Hemlin & Olsson, 2011; Lok & Crawford, 2001; Martins & Terblanche, 2003; Ollila, 2000; Schein, 1992). Amabile (2003) stated that, “Our analysis of team members’ diary entries revealed that the negative leader behaviors evoked more emotionality
that the positive behaviors” (p. 3). In addition, Amabile (1997) argues that executives at all levels have a strong impact on an organization’s work environment, which affects the level of creativity in that organization. Also, Hwang (2013) argues that controlling leaders’ behaviors discourage employees from being creative. Moreover, Murray (1992) argues organizational creativity contains a minimum of two human acts: individual creativity and leadership.

**Conclusion 2.** Of the four LBDQ subscales, consideration has the strongest correlations with innovation. The consideration subscale was defined in the LBDQ manual as the “leader paying attention to the comfort, well-being, status, and contributions of followers” (p. 3). This indicates that leaders with this attribute created a culture that supports innovation where employees feel safe to try something new without fear of negative repercussions or others criticizing them if their idea or product failed. That finding pairs strongly with the result from other studies. For example, Algabbaa (2015) argues transformational leadership style is the best style to promote innovation since it provides more attentions to the human part in an organization. Moreover, Jogulu (2010) conducted a comparison study to seek if there was a link between a culture and the leadership style. He chose organizations from two different cultures to examine. Malaysia (a high power distance culture) and Australia (a low power distance culture), he concluded there is a difference in leadership style in different cultures. Transactional leadership was associated with the managers from Malaysia, while transformational leadership was associated with the Australian managers. Jogulu emphasized in his research the positive affect of transformational leadership style, which concentrates more on the human aspect, to enhance creativity. Northouse (2013) stated, “[It] is a process that changes and transforms people. It is concerned with emotions, values, ethics, standards, and long-term goals, and includes assessing followers motives, satisfying their needs, and treating them as full human
beings” (p. 185). Also, Al-Beraidi and Rickards (2003) state, “transformational style has attracted attention, being one that encourages innovative behaviors” (p. 14).

Conclusion 3. There was a high rate of return (86%) to the instrument, which is considered a high response. One possible reason that accounts for this could be the environment of the police department, where discipline is a highly appreciated trait, perhaps more so than in other work environments. In order to avoid survey fatigue, and get better quality answer to the survey, while designing the survey, the researcher choose only 4 out 12 LBDQ subscales to be added to the survey. The high percentage of the return instrument indicates that was a wise decision.

Conclusion 4. The demographical data show that 88.5% of the participants were younger than 45 years, the median 30.5 years. Also, the data show 87.4% of them worked less than 14 years. That can be an indication of the opportunities that young people in governmental organizations in Saudi Arabia are given to lead their organizations. It is a good start for applying Vision 2030, which supports enabling younger people to enter more leadership positions. However, leaders need to be cautious of this number, since another possible explanation of this high percentage is a high rate of turnover for older employee of PDM. Generally, one can start working in PDM as young as 18 years. However, normally to be in an officer position one needs to finish a police college, from which people can graduate as young as 21 years of age. Thus, the PDM must attract people in their early age to join its forces; and continuously train them to improve their skills, and accumulate different experience and knowledge that can help and support the PDM. Nevertheless, for them to leave the organization after 14 years or more to join other organizations or for different other reason is not fair to the PDM and it should raise a concern for its leaders.
**Conclusion 5.** Of the participants, 33.7% hold postgraduate degrees (master’s or doctorate). Based on that percentage, it can be concluded that there is a high appreciation for education in the MPD and its employees. This attribute can be a great advantage for the organization to learn and improve. Senge (2006) believed that the ability to learn faster than its competition is the most critical advantage that an organization can possess.

**Conclusion 6.** High numbers of the respondents believe they have creative ideas (see Table 4) with a mean of 3.25. Moreover, a higher number of them indicate their belief of having a strong support from MPD to implement their ideas with a mean of 3.35. Those responses were not what the researcher anticipated before conducting this study. Florda, Mellander, and King (2015) ranked Saudi Arabia 83rd in the global creativity index (GCI). Thus, having this mentality of being creative and having the supportive of their creativity was unexpected.

However, many people might not feel comfortable with new ideas because this involves change, which is not what they might want or like. Asad Sadi, and Al-Dubaisi, (2008) stated that, “For most organization change is inevitable” (p. 58). People might refuse change for many reasons. Losing their status is one reason. Being scared of change can be another reason.

Another significant reason why people do not want change could be they are not aware of the need to change. Generally, when there is a need for change, and people do not see it, they are in the first phase of the Lewin’s 3 Steps Change Model: they are frozen. They need to be unfrozen in order for them to accept the need for change. However, it seems leaders in the PDM are ready for change. They are mostly young and well educated. That makes conducting the first step of Lewin’s 3 Steps Change Model (unfreeze) easier to start. Then, after the change is anchored, they can be refrozen again. However, as it was mentioned in Chapter 2 of this study, there are different models for change management. Mostly, to change the behavior of leaders,
we need to concentrate first on changing their beliefs of the leadership task first, and that is 
where the importance of the Iceberg Change Model emerged. Then, for the implementation part, 
one of the most direct change models is Kotter’s (1996) Eight Steps. The directness of Kotter’s 
Eight Steps can be seen in the flow of its eight steps:

1. Establishing sense of urgency.
2. Creating the guiding coalition.
3. Developing a vision and strategy.
4. Communicating the change vision.
5. Empowering broad-based action.
7. Consolidating gains and generating more change.
8. Anchoring new approaches in the culture.

**Conclusion 7.** Remarkably, initiation of structure had an important correlation with 
ínnovation ($r = .33$, $p < .005$), and that matches many studies have been discussed earlier in this 
study. For example, Nagubadi’s (2013) and Bakkar’s (2003) argue that some organizational 
structures are better than others for enhancing certainty. Bolman and Deal (2013) state that, 
“clear well-understood goals, roles, and relationships and adequate coordination are essential to 
performance” (p. 44). They continued, “The right structure enhances team performance” (p. 
107). Also, Robbins and Judge (2014) state, “Managers recognize they can handle a wider span 
best when employees know their job” (p. 235). Moreover, Al-Beraidi and Rickards, (2003) found 
the structural features of the firm that they studied inhibited the creativity there. However, there 
are no perfect organizational structures that can fit all organizations. Every organization is 
different, and leaders of that organization should seek the right structure for their organization. It
is significant to emphasis that any structure needs to be reviewed and updated constantly to make sure it is adaptable to the new challenges and opportunities the organization might face.

**Conclusion 8.** One of the major aspects of the findings as shown in Table 5 was the weak relationship between tolerance of uncertainty and innovation in general. That result is contradictory of what many other studies have found or emphasized the importance of the risk taking or tolerance for ambiguity to promote creativity that were discussed in Chapter 2 (Algabbaa, 2015; Amabile et al., 1996; Derksen, 1998; Himes, 1987; Martins & Terblanche, 2003; Nagubadi, 2013). For example, Martins and Terblanche (2003) included risk taking as one of five areas of the organizational culture that affect creativity and innovation. Also, Nagubadi (2013) agreed that creativity most of the time requires risk taking, and discovering new areas that might not have been uncovered previously. Also, this disagrees with Derksen’s (1998) belief in the willingness to take a risk consider as an element to help establish an environment that encourages creativity. However, this finding matched the finding of another study that was conducted in another Arabic country, Libya; Abridah (2012) did not find a direct connection between uncertainty avoidance and creativity.

**Conclusion 9.** Finally, the highest correlation in Table 5 was between the total of LBDQ, and innovation-team support for innovation with \( r = .41, p < .001 \); different studies (Algabbaa, 2015; Amabile et al., 1996; Bakkar, 2003; Derksen, 1998; Himes, 1987) that were discussed in greater depth in Chapter 2 support this result by recommending having support for innovation in an organization as an essential part for encouraging creativity in an organization. Senge (2006) argued that “a shared vision changes people’s relationship with the company. It is no longer their company; it becomes our company” (p. 192). However, based on a 1984 study by Hofstede, in collective culture, people put more emphasis on the benefit to the overall group than on one’s
individual needs. Generally, Saudi Arabian people tend to support and help each other since it is a collective culture (Shafee & Rhodes, 2016). Also, Bjerke and Al-Meer (1993) stated that, “Saudi Arabia scores considerably higher on power distance and uncertainty avoidance; considerably lower on individualism, and relatively lower on masculinity” (p. 35). It can be inferred that working in a team seems to help in promoting more creativity because the total of different people’s skills or educational backgrounds is better than an individual’s mindset to perceive and tackle an issue an organization might face. Also, it gives an advantage to improve an idea from different prospects and backgrounds.

To conclude, a major finding for this study is the strong relationship between the four LBDQ areas and innovation. This result corresponds with most studies that emphasize the significance of leadership to promote creativity (Abridah, 2012; Amabile et al., 1996; Ollila, 2000; Robbins & Judge, 2014) and many others that were reviewed in Chapter 2 of this study.

**Recommendations for Practice Application**

The findings of this study can be used for several recommendations to improve the work in PDM as follows:

**Recommendation 1.** According to this study, consideration (showing respect, making employees feel appreciated in their work) has a strong effect on promoting employees’ creativity. Thus, in PDM, there should be an encouragement into shifting the leadership style into transformational leadership. Different studies emphasize that transformational leadership style provides more attention to the human aspect of an organization, and that helps to promote more creativity in an organization.

**Recommendation 2.** Research indicated that 87.4% of those who completed the survey worked in PDM for less than 14 years. This can be an indication younger people in PDM have
opportunities to hold leadership positions, however, it can be an indication for a high turnover in the PDM. Leaders in PDM should raise a concern, and try to explore the reasons behind this numbers. It is not fair for the PDM to lose its employees after 14 years or more of investing in training and enhancing their talents and skills.

**Recommendation 3.** Leaders in PDM need to create a vision that is worth commitment for its PDM members, so it can work as a motivation to increase creativity in the organization. Also, this vision needs to be visible, and well communicated to all of the PDM members. Thus, PDM members absorb it, and work harder as it is their own vision to make sure it is successful.

**Recommendation 4.** Leaders of PDM need to make sure they are choosing the right structure for the organization. One benefit of having the right structure is improving the quality of communication in the PDM, so the flow of ideas and its feedback will be easier and faster in the organization. Improving the communication can be achieved by enhancing the type of technology utilized in the organization to help exchange ideas and resolve challenges in the workplace. There is no one right structure for every organization. It needs to continuously update and reconsider due to new challenges or opportunities.

**Recommendation 5.** Leaders of MPD have young and educated members, which, if they were well utilized, could be the main source for it success. One of the best investments that MPD can do is establish a new training program that focuses on enhancing creative thinking skills, or at least by adding creative thinking skills to different training programs that PDM members might attend.

**Recommendation 6.** Leaders of PDM need to have a system that ensures a reward system for those who do the work in a creative way that may save the organization its resources
(time, money, or customer satisfaction). Also, establish a new prize in the PDM for most creative people or department can be another way of the reward system mentioned earlier.

**Recommendation 7.** Leaders in the PDM appeared to be ready for change. They are mostly young and well educated which makes conducting the first step of Lewin’s 3 Steps Change Model (unfreeze) easier to start. Thus, it might be the right time to start any change in the PDM organization such as applying the vision of 2030.

**Recommendation 8.** From Conclusion 9, it can be seen the essential of leadership behaviors on innovation-team support for innovation. Thus, knowing the advantages of teamwork and support to deal with an issue from different perspectives using different skills, leaders need to emphasize helping their employees to work on a team to increase their creativity skills.

**Recommendations for Further Research**

Based on the study results, the researcher is providing some recommendations for other researchers who might be interested in creativity and innovation in general and in Saudi Arabia in particular.

Future research can be conducted in different governmental organizations, such as healthcare, or public school sector to learn more about the perception of creativity in the young people who hold the future of any country. Moreover, it can be conducted in business or non-profit organization to discover and compare their perception of creativity to the result of this study.

Since this study was conducted on only one region of the country of Saudi Arabia (Mecca Region), this study can be conducted in different geographic regions of the country to compare differences and similarities in the results, if they exist.
The study and the survey can be conducted in different ways. For example, adding a section for an open-ended question to describe the participant’s thoughts of the topic, and if they have any recommendations or suggestions. Instead of utilizing a pencil and paper format, this study could be completed in an online format that would save a researcher significant amount of time and energy trying to distribute and collect the surveys to and from the participants. As well as save time and energy during the process of inserting the data to the SPSS. Other than using the convenience sample, a researcher can choose another way of sampling. Also, other ways to conduct this study are by using mix method, qualitative research method, or using a bigger sample size. Then, a researcher can compare the results to the result of this qualitative study.

Further research can be conducted where the researchers could hand the survey to the participants themselves, at the same time taking advantage of group meeting would help to get a higher return rate with better quality answers. Thus, make certain participants are provided enough time to complete the survey, and that they are not rushed.

Another researcher might consider translating the findings of studies that focus on creativity (like this study) to the Arabic language, so it will be accessible for Arab leaders to learn, and improve their leadership skills.

**Four Steps Model to Promote Innovation in an Organization**

As a result of the present study, the researcher developed a four Step process (see Figure 11) to assist leaders in any organization who desire to increase creativity in their workplace.

**Step 1 - Assessment step.** Leaders of that organization need to discover the level of satisfaction that the general public holds with regard to the services that their organization provides. At the same time, leaders of the PDM need to assess their employees’ perceptions of the service they provide. The suggestion of this step was based on reviewing different change
management theories, particularly the first step of Kotter’s (1996) eight steps for leading change: “establish a sense of urgency” (p. 61). Conducting this step will make the employees of the organization rethink of their job, and raise new questions about the way they are doing their tasks. This assessment can be conducted via surveys, public data, or personal interviews. Generally, personal interviews might reveal more information about the real world reflections. However, anonymous surveys mainly with open-ended question can provide more confidence to the participants to directly say their opinion without having the concern of being personally judged based on their answers.

**Step 2 - Determination step.** Based upon the result of the first step, leaders of the organization can define the desirable goal, its challenges and the opportunities of their workplace. Then, a determination of the current situation, current resources, and the best way to achieve the desirable goal can be set.

**Step 3 - Filling the gap step.** In this step, leaders of the organization need to use their leadership skills to achieve the desirable goal by setting the right vision for the organization, communicate it, and make sure they gain the buy in from their employees. Also, to choose the right structure for the organization that guarantees the flow of communications for different ideas and feedback. There is no one right structure for every organization and it cannot be forever. Organizational structure needs to be continuously reviewed and reconsidered due to new challenges or opportunities. Furthermore, as a result of this study, working in a team seems to help to improve creativity by gathering different skills and backgrounds to promote an ideas or finding a solution for a dilemma that an organization faces. Moreover, transformational leadership style was shown to be the best style to promote innovation since it provides more attention to the human aspect of an organization. Finally, leaders of the PDM need to provide the
right resources to their employees and to overcome their obstacles to meet the general public’s expectation.

**Step 4 - Redo the first step.** Since in human work there is no perfection, redoing the first step of this model (the assessment) on a regular basis, annually or bi-annually can be a factor to ensure continuously innovation in the organization. In any workplace there are always areas to improve, either new invented technology can be used, or even new goals to be achieved. From that perspective the significance of step four can be seen.

*Figure 11.* Four steps model to promote innovation in an organization.

**Final Summary**

This chapter discussed the findings of the study. Some of the major finding of this study was based on the result of the demographical data were it was noticeable that 88.5% of the participants were less than 45 years of age, and 87.4 of them worked less than 14 years. With
regard to the educational background 33.7% of the participants hold postgraduate degrees (masters or doctorate), which can be an induction for high admiration for learning in the organization.

Hypothesis 1 was proven; there is a strong relationship between the four LBDQ and innovation. This result corresponds with many studies that emphasize the essential of leadership to promote creativity such as Amabile et al., 1996, Algabbaa, 2015 and Bakkar, 2003.

Hypothesis 2 (leadership scores predicting innovation score) was also supported. However, out of the four LBDQ, consideration has the most repeated item that affects innovation in the participants’ innovation. That finding pairs strongly with the result from studies that argue transformational leadership style is the best style to promote innovation since it provides more attention to the human aspect of an organization. (Algabbaa, 2015; Jogulu, 2010). Initiation of structure had an important part in that result, and that matches with Nagubadi (2013), and Bakkar (2003) who believe that some organizational structures are better than others for enhancing certainty.

High numbers of the respondents believe they are creative, and a higher number of them indicate having a strong support from PDM to implement their ideas. Those responses were not what the researcher anticipated before conducting this study. Another part of the conclusion, was to shed the light on other aspect that help promote creativity although it not supported by the findings, Amabile et al. (1996) argue beside the expertise and creative thinking skills, motivation for creativity plays a significant role to enable creativity.

Chapter 5 concludes with recommendations for practice. For example, establishing a prize in the PDM for most creative people, increasing the quality of communication in the PDM, and supporting different training program that PDM members might attend. Moreover, further
recommendations for other researchers were suggested such as conducting the study in different methodology, different geographical area, using online survey, applying the study to different population, and exploring the reason of some of the finding in the study. Finally, this chapter ends with the Four Steps Model to promote innovation in the PDM.
REFERENCES


_Governing Cities in a Global Era._ doi:10.1057/9780230608795_1


doi: 10.1177/001872674700100103


doi:10.1108/EUM0000000006302


doi:10.1142/S1363919611003386


doi:10.1108/14601060310456337


APPENDIX A

The Saudi Vision 2030

Saudi Arabia has unveiled its Vision 2030 roadmap with three key themes – a "vibrant society", a "thriving economy" and an "ambitious nation." Key takeaways of the vision documents are:

**Goals 2030**

- To move from the current position as the 19th largest economy in the world into the top 15
- To rise from the current position of 25 to the top 10 countries on the Global Competitiveness Index
- To increase the private sector’s contribution from 40% to 65% of GDP
- To raise the share of non-oil exports in non-oil GDP from 16% to 50%
- To increase non-oil government revenue from SAR163bn to SAR11tn
- To increase the Public Investment Fund’s assets, from SAR 600bn to over 7tn
- To have three Saudi cities be recognized in the top-ranked 100 cities in the world
- To increase the localization of oil and gas sectors from 40% to 75%
- To increase SME contribution to GDP from 20% to 35%
- To increase foreign direct investment from 3.8% to the international level of 5.7% of GDP
- To raise the ranking in the Government Effectiveness Index, from 80 to 20
- To raise the ranking on the E-Government Survey Index from the current position of 36 to be among the top five nations
- To increase women's participation in the workforce from 22% to 30%
- To increase the capacity to welcome Umrah visitors from 8mn to 30mn every year
- To more than double the number of Saudi heritage sites registered with UNESCO
- To increase household spending on cultural and entertainment activities inside the Kingdom from the current level of 2.9% to 6%
- To increase household savings from 6% to 10% of total household income
- To increase the ratio of people exercising at least once a week from 13% of population to 40%
- To raise the position from 26 to 10 in the Social Capital index
- To increase the average life expectancy from 74 years to 80 years
- To lower the rate of unemployment from 11.6% to 7%
- To raise the global ranking in the Logistics Performance Index from 49 to 25 and ensure the Kingdom is a regional leader
- To raise the non-profit sector’s contribution to GDP from less than 1% to 5%
- To rally 1mn volunteers per year (compared to 11,000 now)
Privatization

- The Kingdom plans to value state oil company Saudi Aramco at more than USD21bn ahead of the sale of less than 5% of it through an initial public offering.
- The government will further develop the sophistication of investment vehicles, particularly after transferring the ownership of Aramco to the Public Investment Fund, which will become the largest sovereign wealth fund in the world. It will increase the efficiency of the fund's management and improve its return on investment, with the aim of diversifying the government resources and the economy.
- Emphasis would be given on smoothing the process of listing private Saudi companies and state-owned enterprises, including Aramco. This will require deepening liquidity in the capital markets, fortifying the role of the debt market and paving the way for the derivatives market.
- The Prince plans to transform Aramco from an oil producing company into a global industrial conglomerate.

Public Investment Fund

- At the center of the plan is the restructuring of its Public Investment Fund (PIF), which Prince Mohammed said would become a hub for Saudi investment abroad, partly by raising money through selling shares in Aramco.
- He added that the kingdom would raise the capital of its public investment fund to SAR7tn (USD21bn) from SAR600bn (USD160bn).

Tourism

- The government has commenced a third expansion of the Two Holy Mosques as well as modernising and increasing the capacities of the airports. It has launched the Makkah Metro project to complement the railroad and train projects that will serve visitors to the Holy Mosques and holy sites. Furthermore, it has reinforced the network of the transport system to facilitate access and help pilgrims perform their visits with greater ease and convenience.
- The plan also proposes to establish more museums, prepare new tourist and historical sites and cultural venues, and improve the pilgrimage experience within the Kingdom.
- The plan proposes to build an Islamic museum in accordance with the highest global standards, equipped with the latest methods in collection, preservation, presentation and documentation. It will also be an international hub for erudition and include a world-class library and research center.
- By increasing the capacity and by improving the quality of the services offered to Umrah visitors by 2020, the plan aims to make it possible for over 15mn Muslims per year to perform Umrah and be completely satisfied with their pilgrimage experience.
- By 2030, the government plans to more than double the number of Saudi heritage sites registered with UNESCO.
Education

- In the year 2030, plan aim to have at least five Saudi universities among the top 200 universities in international rankings.
- The goal by 2020 is for 80% of parents to be engaged in school activities and the learning process of their children. The government will launch the “Iriqat” program, which will measure how effectively schools are engaging parents in their children’s education. It will establish parent-led boards in schools, to open discussion forums and further engage with parents.
- Building an education system aligned with market needs and creating economic opportunities for the entrepreneur, the small enterprise as well as the large corporation is also emphasized in the plan.

Government Reforms

- The plan documents improved governance, transparency, structural reform in the government functioning. It states to achieve zero tolerance for all levels of corruption, whether administrative or financial.
- The government will expand the variety of digital services to reduce delays and cut tedious bureaucracy. It will immediately adopt wide-ranging transparency and accountability reforms and, through the body set up to measure the performance of government agencies.
- The King Salman Program for Human Capital Development is yet to identify and put into effect the best practices that would ensure that public sector employees have the right skills for the future.
- Government is working towards shared services across the government agencies. This will contribute to achieving increased productivity and efficiency of government spending.
- It will launch the “Qawam” program as a reflection of the Quranic verse that calls for moderation in spending between excess and parsimony.

Small and Medium Enterprises

- SMEs in the Kingdom are not yet major contributors to the GDP, especially when compared to advanced economies. Therefore, the Kingdom will strive to create suitable job opportunities for citizens by supporting SME entrepreneurship, privatization and investments in new industries.
- It aims to create suitable job opportunities for the citizens by supporting SME entrepreneurship, privatization and investments in new industries. To help achieve this goal, it has established the SME Authority and will continue encouraging the young entrepreneurs with business-friendly regulations, easier access to funding, international partnerships and a greater share of national procurement and government bids. It will strive to facilitate enhanced access to funding and to encourage the financial institutions to allocate up to 20% of overall funding to SMEs by 2030.

Expatriates

- The government plans to improve living and working conditions for non-Saudis, by extending their ability to own real estate in certain areas, improving the quality of life, permitting the establishment of more private schools and adopting an effective and simple system for issuing visas and residence permits.
Social
- To lower the rate of unemployment from 11.6% to 7%; furthermore, to increase women's participation in the workforce from 22% to 30%.
- To have three Saudi cities be recognized in the top-ranked 100 cities in the world.
- To increase household spending on cultural and entertainment activities inside the Kingdom from the current level of 2.9% to 6%.
- To increase the ratio of individuals exercising at least once a week from 13% of population to 40%.
- Even though 47% of Saudi families already own their homes, the government aims to increase this rate by 5% till 2020.
- To raise KSA’s position from 28 to 10 in the Social Capital index.
- To increase the average life expectancy from 74 years to 80 years.
- The government has launched the National Labor Gateway (TACAT), and eyes to establish sector councils that will precisely determine the skills and knowledge required by each socio-economic sector. The government would also expand vocational training in order to drive forward economic development.
- To increase household savings from 6% to 10% of total household income.
- The government would work towards developing private medical insurance to improve access to medical services and reduce waiting times for appointments with specialists and consultants.

Housing
- To increase housing ownership rate by 5% till 2020. The government would introduce a number of laws and regulations; encouraging the private sector to build houses; and providing funding, mortgage solutions and ownership schemes that meet the needs of our citizens.
- To exceed 90% housing coverage in densely populated cities and 86% in other urban zones.

Subsidies and Taxes
- Subsidies for fuel, food, water and electricity will be better utilized by redirecting them towards those in need.
- Subsidy criteria would be created based on the maturity of economic sectors, their ability to compete locally and internationally and their actual need for subsidies, without endangering promising and strategic sectors.
- There will be no taxes on citizens' income or wealth, or on basic goods. The government would keep prices stable over the long term, and give Saudi citizens greater economic security.

Military
- To manufacture half of the military needs within the Kingdom to create more job opportunities for citizens and keep more resources in our country.
- To localize over 90% of military equipment spending by 2030.
Diversification

- The ongoing privatization of state-owned assets, including leading companies, property and other assets.
- To provide better opportunities for partnerships with the private sector through the three pillars: KBA's position as the heart of the Arab and Islamic worlds, leading investment capabilities, and strategic geographical position.
- Localizing renewable energy and industrial equipment sectors; generate 9.5 gig watts of renewable energy.
- Create attractions in tourism sector, improve visa issuance procedures for visitors, and prepare and develop historical and heritage sites.
- To create digital economy and boost technology sector.
- Mining sector is expected to reach at SAR 97bn by 2020. The government would furnish incentives for and benefit from the exploration of the Kingdom’s mineral resources. Furthermore, it urges to create 50,000 jobs in the sector.
- Localizing oil and gas sector, doubling our gas production, and construct a national gas distribution network.
- To increase the contribution of modern trade and e-commerce to 80% of the retail sector by 2020 and create jobs in the sector.
- The government would partner with the private sector to develop the telecommunications and information technology infrastructure, especially high-speed broadband, expanding its coverage and capacity within and around cities and improving its quality. The government aims to exceed 90% housing coverage in densely populated cities and 60% in other urban zones.
- To rise from current position of 25 to the top 10 countries on the Global Competitiveness Index.
- To increase foreign direct investment from 3.8% to the international level of 5.7% of GDP.
- To increase the private sector’s contribution from 40% to 65% of GDP.
- To raise our global ranking in the Logistics Performance Index from 49 to 25 and ensure the Kingdom is a regional leader.
- To raise the share of non-oil exports in non-oil GDP from 16% to 50%.
- Creating special economic zones with visa exemptions, and directly connected to the King Khalid International Airport.

Others

- Improve the quality of our services, by privatizing some government services, improving the business environment, attracting the finest talent and the best investments globally, and leveraging unique strategic location in connecting three continents.
- To prepare the right environment for citizens, the private sector and non-profit sector to take their responsibilities and take the initiative in facing challenges and seizing opportunities.
- Healthy lifestyle to all citizen, promoting physical, psychological and social well-being.
- To enhance the role of government funds, while also attracting local and international investors, creating partnerships with international entertainment corporations. Land suitable for cultural and entertainment projects will be provided and talented writers, authors and directors will be carefully supported.
- Regular participation in sports and athletic activities, working in partnership with the private sector to establish additional dedicated facilities and programs.
- Creating safety, security in the cities, infrastructure development and providing high quality services such as water, electricity, public transport and roads.
- Waste management, establishing comprehensive recycling projects, reducing all types of pollution and fighting desertification.
- Promote the optimal use of our water resources by reducing consumption and utilizing treated and renewable water.
- Protecting and rehabilitating beaches, natural reserves and islands, making them open to everyone.
- Reviewing regulations to simplify the establishment and registration of amateur, social and cultural clubs.
- The government would launch and provide the necessary financial support for "Disem", a national program to enhance the quality of cultural activities and entertainment.
- The government aims to establish more than 450 registered and professionally organized amateur clubs providing a variety of cultural activities and entertainment events by 2020.
- To move from the current 19th position as the largest economy in the world to the top 15.
- The government would push for GCC common market, unifying customs, economic and legal policies, and constructing shared road and railway networks.
- To collaborate with consumers, food manufacturers and distributors to reduce any resource wastage.
- To create a more impactful non-profit organizations and raise the non-profit sector's contribution to GDP from less than 1% to 5%.
- To rally one million volunteers per year (compared to 11,000 now).
APPENDIX B

The LBDQ Survey

Please provide the following demographic information by putting (X) mark in next to the correct answer. Be sure to respond to each item.

Demographic information:
Age:
Less than 25 (   )
From 26 to 35 (   )
From 36 to 45 (   )
From 46 to 55 (   )
More than 56 (   )

Work experience
Less than 3 years (   )
From 4-8 years (   )
From 9 to 13 (   )
From 14 to 20 (   )
More than 21 (   )

Education background:
High school (   )
Bachelor (   )
Master degree (   )
Doctorate degree (   )

The LBDQ Survey.
This part of the survey is adapted from the LBDQ survey (1963) by Stogdill Ohio state university. (see Appendix D).

To respond to this part of the survey please follow these instructions.
A. Read each item carefully.
B. Think about how frequently you engage in the behavior described by the item.
C. Decide whether you (A) always, (B) Often, (C) occasionally, (D) seldom or (E) never act as described by the item.
D. Draw a circle around one of the five letters (A B C D E) following the items to show the answer you selected.

A= always.
B= Often
C= occasionally
D= seldom
E= never
<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I wait patiently for the results of a decision</td>
<td>A B C D E</td>
</tr>
<tr>
<td>2</td>
<td>I let group members know what is expected of them</td>
<td>A B C D E</td>
</tr>
<tr>
<td>3</td>
<td>I allow the members complete freedom in their work</td>
<td>A B C D E</td>
</tr>
<tr>
<td>4</td>
<td>I am friendly and approachable</td>
<td>A B C D E</td>
</tr>
<tr>
<td>5</td>
<td>I become anxious when I cannot find out what is coming next.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>6</td>
<td>I encourage the use of uniform procedures</td>
<td>A B C D E</td>
</tr>
<tr>
<td>7</td>
<td>I permit the members to use their own judgment in solving problems</td>
<td>A B C D E</td>
</tr>
<tr>
<td>8</td>
<td>I do little things to make it pleasant to be a member of the group</td>
<td>A B C D E</td>
</tr>
<tr>
<td>9</td>
<td>I accept defeat in stride</td>
<td>A B C D E</td>
</tr>
<tr>
<td>10</td>
<td>I try out my ideas in the group</td>
<td>A B C D E</td>
</tr>
<tr>
<td>11</td>
<td>I encourage initiative in the group members</td>
<td>A B C D E</td>
</tr>
<tr>
<td>12</td>
<td>I put suggestions made by the group into operation.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>13</td>
<td>I accept delays without becoming upset</td>
<td>A B C D E</td>
</tr>
<tr>
<td>14</td>
<td>I make my attitudes clear to the group</td>
<td>A B C D E</td>
</tr>
<tr>
<td>15</td>
<td>I let the members do their work the way they think best</td>
<td>A B C D E</td>
</tr>
<tr>
<td>16</td>
<td>I treat all group members as my equals</td>
<td>A B C D E</td>
</tr>
<tr>
<td>17</td>
<td>I become anxious when waiting for new developments.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>18</td>
<td>I decide what shall be done and how it shall be done</td>
<td>A B C D E</td>
</tr>
<tr>
<td>19</td>
<td>I assign a task, then lets the members handle it.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>20</td>
<td>I give advance notice of changes.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>21</td>
<td>I am able to tolerate postponement and uncertainty.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>22</td>
<td>I assign group members to particular tasks.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>23</td>
<td>I turn the members loose on a job, and let them go to it.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>24</td>
<td>I keep to myself.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>25</td>
<td>I can wait just so long, then blow up</td>
<td>A B C D E</td>
</tr>
<tr>
<td>26</td>
<td>I make sure that my part in the group is understood by the group members</td>
<td>A B C D E</td>
</tr>
<tr>
<td>27</td>
<td>I am reluctant to allow the members any freedom of action.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>28</td>
<td>I look out for the personal welfare of group members.</td>
<td>A B C D E</td>
</tr>
<tr>
<td>29</td>
<td>I remain calm when uncertain about coming events</td>
<td>A B C D E</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>30.</td>
<td>I schedule the work to be done</td>
<td>A</td>
</tr>
<tr>
<td>31.</td>
<td>I allow the group a high degree of initiative.</td>
<td>A</td>
</tr>
<tr>
<td>32.</td>
<td>I am willing to make changes</td>
<td>A</td>
</tr>
<tr>
<td>33.</td>
<td>I am able to delay action until the proper time occurs.</td>
<td>A</td>
</tr>
<tr>
<td>34.</td>
<td>I maintain definite standards of performance</td>
<td>A</td>
</tr>
<tr>
<td>35.</td>
<td>I trust the members to exercise good judgment</td>
<td>A</td>
</tr>
<tr>
<td>36.</td>
<td>I refuse to explain my actions</td>
<td>A</td>
</tr>
<tr>
<td>37.</td>
<td>I worry about the outcome of any new procedure</td>
<td>A</td>
</tr>
<tr>
<td>38.</td>
<td>I ask that group members to follow stander rules and regulations.</td>
<td>A</td>
</tr>
<tr>
<td>39.</td>
<td>I permit the group to set its own pace</td>
<td>A</td>
</tr>
<tr>
<td>40.</td>
<td>I act without consulting the group</td>
<td>A</td>
</tr>
</tbody>
</table>
العمر:
أ) أقل من 25 سنة ........................
( )
ب) بين 26 - 35 سنة ........................
( )
ج) بين 36 - 45 سنة ........................
( )
د) بين 46 - 55 سنة ........................
( )
ه) 56 سنة فما فوق ........................
( )

الخدمة:
أ) أقل من ثلاث سنوات ........................
( )
ب) بين 4 - 8 سنة ........................
( )
ج) بين 9 - 13 سنة ........................
( )
د) بين 14 - 20 سنة ........................
( )
ه) 21 سنة فما فوق ........................
( )

التعليم:

ثانوي ........................
بكالوريوس ........................
ماجستير ........................
دكتوراة ........................
<table>
<thead>
<tr>
<th>Item</th>
<th>Arabic Text</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>انظر نتائج القرار بصبر</td>
<td>Look at the results of the decision with caution.</td>
</tr>
<tr>
<td>2.</td>
<td>أخبر أعضاء المجموعة على ما يتوقع منهم</td>
<td>Inform the group members of what is expected of them.</td>
</tr>
<tr>
<td>3.</td>
<td>اعطي الأعضاء مطلق الحرية في عملهم</td>
<td>Give the group members complete freedom to work.</td>
</tr>
<tr>
<td>4.</td>
<td>وقود وم من العمل معي</td>
<td>Fuel and keep the work with me.</td>
</tr>
<tr>
<td>5.</td>
<td>أشعر بالتوتر عندما لا استطيع اكتساب ما سأجبر مستقبلا</td>
<td>Feel stress when I cannot achieve what I expect in the future.</td>
</tr>
<tr>
<td>6.</td>
<td>اشجع على استخدام الإجراءات المعدة مسبقًا</td>
<td>Encourage the use of the prepared procedures.</td>
</tr>
<tr>
<td>7.</td>
<td>اسمح للاعضاء باستخدام ادواتهم الخاصة في حل المشكلات</td>
<td>Allow the members to use their own tools to solve problems.</td>
</tr>
<tr>
<td>8.</td>
<td>اعمل شيء قريب وطيف حتى يشعر كل عضو في المجموعة أنه مرسوب به</td>
<td>Work on something close and visible so that each member of the group feels involved.</td>
</tr>
<tr>
<td>9.</td>
<td>انتقل القيادة بروح عالية</td>
<td>Transfer the leadership with high spirit.</td>
</tr>
<tr>
<td>10.</td>
<td>اختبر أفكارك على نطاق المجموعة</td>
<td>Try your ideas on a group level.</td>
</tr>
<tr>
<td>11.</td>
<td>أشجع أعضاء المجموعة على الاعتناء بزمام المبادرة</td>
<td>Encourage group members to take charge.</td>
</tr>
<tr>
<td>12.</td>
<td>أضع اقتراحات المجموعة موضوع التنفيذ</td>
<td>Place the group's suggestions as a subject for implementation.</td>
</tr>
<tr>
<td>13.</td>
<td>قبل التنازل بدون تنمر</td>
<td>Before giving up without giving up.</td>
</tr>
<tr>
<td>14.</td>
<td>أوضح موقفك للمجموعة</td>
<td>Explain your position to the group.</td>
</tr>
<tr>
<td>15.</td>
<td>ادع لإعطاء المجموعة نادية أعمالهم بالطريقة التي يرونها مناسبة</td>
<td>Allow the group to give their work in the way they see it as suitable.</td>
</tr>
<tr>
<td>16.</td>
<td>اعمل كل أعضاء المجموعة كما أحب أن أعمل</td>
<td>Work all group members as I wish to work.</td>
</tr>
<tr>
<td>17.</td>
<td>انتظر التطورات الجديدة بقلق</td>
<td>Wait for new developments with concern.</td>
</tr>
<tr>
<td>18.</td>
<td>أقر ما ينبغي عمله وكيف عمله</td>
<td>Confirm what needs to be done and how to do it.</td>
</tr>
<tr>
<td>19.</td>
<td>احذد المهمة واترك للاعضاء تنيرها</td>
<td>Hold the task and let the group members take over.</td>
</tr>
<tr>
<td>20.</td>
<td>أعطي اشراطًا متكاملة للاختيارات</td>
<td>Give comprehensive choices to the group.</td>
</tr>
<tr>
<td>21.</td>
<td>أعمل التنازل أو عدم التنازل</td>
<td>Make the decision to compromise or not.</td>
</tr>
<tr>
<td>22.</td>
<td>اعين لإعطاء المجموعة مهام محددة</td>
<td>Design specific tasks for the group.</td>
</tr>
<tr>
<td>23.</td>
<td>اترك للاعضاء العمل دون إيهام قيود</td>
<td>Leave the group members to work without giving them instructions.</td>
</tr>
<tr>
<td>24.</td>
<td>منطقي على نفسك</td>
<td>Be realistic with yourself.</td>
</tr>
<tr>
<td>25.</td>
<td>استطاع الانتظار لفترة قبل أن أفقد السيطرة على اعمالي</td>
<td>Was able to wait for a period before losing control over my work.</td>
</tr>
<tr>
<td>26.</td>
<td>أنا أتقم من أن يوجد في المجموعة مفهوم من قبل بقية الاعضاء</td>
<td>I am surprised that the group has a concept from the rest of the members.</td>
</tr>
<tr>
<td>27.</td>
<td>اتزداد في السماح للاعضاء المجموعة في القيام بالطريقة التي يرونها</td>
<td>Increases the group's permission to carry out the way they see fit.</td>
</tr>
<tr>
<td>28.</td>
<td>بهمني المصلحة الشخصية لإعطاء المجموعة.</td>
<td>I am concerned with the group's personal interest.</td>
</tr>
<tr>
<td>29.</td>
<td>أظل هادئًا عندما لا أعدم ماهي الأحداث القادمة</td>
<td>Remain calm when I do not repeat past events.</td>
</tr>
<tr>
<td>30.</td>
<td>اضع جدول لاداء مهام العمل</td>
<td>Set a schedule for performing tasks.</td>
</tr>
<tr>
<td>31.</td>
<td>أعطي المجموعة فرصة كبيرة للمبادرة</td>
<td>Give the group a huge opportunity to take the initiative.</td>
</tr>
<tr>
<td>32.</td>
<td>أعلم أنني مغيب في إحداث التغيير</td>
<td>Know that I am absent from changes.</td>
</tr>
<tr>
<td>33.</td>
<td>استطاع تأجيل الإحداث لحين مجيء الفرصة المناسبة</td>
<td>Was able to delay events until the appropriate opportunity arrives.</td>
</tr>
<tr>
<td>34.</td>
<td>احافظ على معايير محددة للاهداف</td>
<td>Maintain defined standards for goals.</td>
</tr>
<tr>
<td>الرقم</td>
<td>العدد</td>
<td>النص</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>35</td>
<td>127</td>
<td>أثق في الأعضاء لاتخاذ قرارات صائبة.</td>
</tr>
<tr>
<td>36</td>
<td>127</td>
<td>أرفض إن أشرح أفعالي.</td>
</tr>
<tr>
<td>37</td>
<td>127</td>
<td>أشعر بالقلق على نتائج أي اجراء جديد.</td>
</tr>
<tr>
<td>38</td>
<td>127</td>
<td>اطلب من أعضاء المجموعة اتباع التعليمات والمعايير المفروضة.</td>
</tr>
<tr>
<td>39</td>
<td>127</td>
<td>أسمح للمجموعة بتحديد مدى سرعتها في انجاز العمل.</td>
</tr>
<tr>
<td>40</td>
<td>127</td>
<td>أصرف بدون الرجوع للمجموعة.</td>
</tr>
</tbody>
</table>
APPENDIX C

Magdley and Birdi’s Innovation Questionnaire

The last part of that survey based on by Magdley and Birdi’s (2012) Innovation questionnaire: (see Appendix E).

To respond to this questionnaire please follow these instructions: Choose a rating that best describes your organization from 1 = strongly disagree to 5 = strongly agree.

<table>
<thead>
<tr>
<th>CREATIVITY SELF-EFFICACY</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- I am confident that I can come up with new ways of doing things at work.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2- If required, I could easily come up with suggestions to improve how we work.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3- I do not have any problems coming up with new ideas.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4- I find it really difficult to think up new ways of doing things.</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOMAIN-EXPERTISE</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- I am well qualified to engage in today’s discussion.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2- I have a lot of experience in dealing with issues like this (today’s tasks)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3- I have a lot of relevant knowledge to contribute to today’s discussion.</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TEAM SUPPORT FOR INNOVATION</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Members of the team provide practical support for new ideas and their application.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. People in the team co-operate in order to help develop and apply new ideas.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. In our team we take the time needed to develop new ideas.</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TEAM PARTICIPATIVE SAFETY</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- We have a ‘we are in it together’ attitude.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2- People feel understood and accepted by each other.</td>
<td></td>
</tr>
<tr>
<td>3- People keep each other informed about work-related issues on the team.</td>
<td></td>
</tr>
</tbody>
</table>
### Organizational support for innovation

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-</td>
<td>Assistance in developing new ideas is readily available.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2-</td>
<td>In our organization, time is given to develop new ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3-</td>
<td>People in our organization co-operate in order to help develop and apply new ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4-</td>
<td>Members of our organization provide practical support for new ideas and their application.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### Organizational flexibility

<p>| | | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>1-</td>
<td>Our organization is quick to respond when changes need to be made.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2-</td>
<td>Our organization is quick to spot the need to do things differently.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3-</td>
<td>Our organization is very flexible, it can quickly change procedures to meet new conditions and solve problems as they arise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### Measure of innovation: (A) ideas generation and (B) ideas implementation

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1a) to what extent have you generated ideas for new policies, services, or products in the last 3 months.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1b) in general, what extent of these ideas was implanted</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2a) To what extent have your generated ideas for new methods to achieve work target/object in the last three months</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2b) In general, what extent of these ideas was implanted</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
3a) to what extent have you generated ideas for new work procedures in the last 3 months?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

3b) in general, what extent of these ideas was implanted

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>


Thank you so much for your cooperation.
 Petr Magdley و Birdi’s Innovation Questionnaire

الرجاء تحديد أفضل خيار لوصف المنظمة التي تعمل بها من الرقم 1 لا أوافق بشدة إلى 5 اتفق بشدة:

| التقييم | 1. لا أوافق بشدة.
|.........| 2. لا أوافق.
|.........| 3. محايد.
|.........| 4. اتفق.
|.........| 5. اتفق بشدة.

## فعالية الإبداع الذاتي

<table>
<thead>
<tr>
<th>رقم</th>
<th>محتوى السؤال</th>
<th>التقييم</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>أنا أثق بأنه يستطيع ابتكار طرق جديدة للاداء العمل.</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>إذا طلب مني، استطيع بسهولة تقديم اقتراحات لتحسين طريقة أداء عملنا الحالي.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>ليس لدي أي صعوبة في اتخاذ افكار جديدة.</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>أجد أنه من الصعب جدا التفكير لابتكار طرق جديدة للاداء.</td>
<td>1</td>
</tr>
</tbody>
</table>

## نطاق الخبرة

<table>
<thead>
<tr>
<th>رقم</th>
<th>محتوى السؤال</th>
<th>التقييم</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>أنا مؤهل بشكل كامل للمشاركة في نشاطات اليوم</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>لدي الكثير من الخبرة لتعامل مع مشاكل اليوم</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>لدي الكثير من المعرفة المتعلقة بقضايا اليوم</td>
<td>1</td>
</tr>
</tbody>
</table>

## دعم الفريق للابتكار

<table>
<thead>
<tr>
<th>رقم</th>
<th>محتوى السؤال</th>
<th>التقييم</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>أعضاء الفريق يوفرون دعم رئيسي للفكر الجديد وتطبيقها.</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>الناس في الفريق يشاركون لمساعدة في تطوير وتطبيق الافكار الجديدة.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>في فريق العمل نحن نأخذ وقتنا لتطوير أفكار جديدة.</td>
<td>1</td>
</tr>
</tbody>
</table>

## سلامة التعاون في الفريق

<table>
<thead>
<tr>
<th>رقم</th>
<th>محتوى السؤال</th>
<th>التقييم</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>نحن نمتلك علاقة (نحن جميعا نقوم بالعمل)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>الناس يشعرون أن الآخرين يفهمونهم ويقبلونهم.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>يحرص الناس على أن يبلغوا بعضهم البعض بقضايا العمل حتى يكونوا ملمنين بقضايا الفريق.</td>
<td>1</td>
</tr>
</tbody>
</table>

## دعم المنظمة للابتكار

<table>
<thead>
<tr>
<th>رقم</th>
<th>محتوى السؤال</th>
<th>التقييم</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>المساعدة في تطوير الافكار الجديدة متوفرة بسهولة</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>في منظمنا الوقت متوفر لتطوير افكار جديدة.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>الناس في منظمنا يتعاونون لمساعدة في تطوير وتنفيذ الافكار الجديدة.</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>الأعضاء في منظمنا يقدمون دعم عملي للفكار الجديدة وتطبيقها.</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>المرونة التنظيمية</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>منظمتنا تواجه بشكل سريع عندما تكون هناك حاجة لتغيير.</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>منظمتنا سريعة في تحديد الحاجة إلى تغيير طريقة الاداء.</td>
<td>1</td>
</tr>
</tbody>
</table>
| 8    | منظمتنا مهمة بشكل كبير، لذلك يمكنها بشكل سريع تغيير الاجراءات لتوافق مع الظروف وحل المشاكل عندما نبادأ.
<table>
<thead>
<tr>
<th>التقييم</th>
<th>1=ليس على الإطلاق (لا شيء)</th>
<th>2=قليلًا (واحد أو اثنين)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3=بشكل متوسط (ثلاثة إلى خمسة)</td>
<td>4=بشكل كبير (من ستة إلى سبع)</td>
<td>5=بشكل كبير جداً (أكثر من عشرة)</td>
</tr>
</tbody>
</table>

قياس الإبتكارية: توليد الأفكار وتطبيق الأفكار

1) إلى أي مدى قمت بتمييز أفكار جديدة لخدمات، منتجات أو الابتكارات خلال الثلاث أشهر الماضية.

2) بشكل عام، إلى أي مدى أي من هذه الأفكار تم تطبيقه في العمل.

3) إلى أي مدى قمت بتمييز أفكار لتجديد طريقة العمل لتحقيق أهداف/الغاية من العمل خلال الثلاث أشهر الماضية؟

4) بشكل عام، إلى أي مدى أي من هذه الأفكار تم تطبيقه خلال الثلاث أشهر الماضية؟

5) بشكل عام، إلى أي مدى أي من هذه الأفكار تم تطبيقه.
APPENDIX D

Permission to Use the LBDQ Survey

Hello Mr. Shafee,

Please see below on the response that I received regarding the study. Please let me know if the resources available online are sufficient for your needs. They can be found here: http://fisher.osu.edu/research/lbdq.

Also, permission was granted below for you to translate the items in to Arabic.

Please let me know if I can be of any further assistance.

Thank you,

Kristina Toliver
Office Manager
Graduate Programs, Fisher College of Business
100 Gerlach Hall, 2108 Neil Avenue, Columbus, OH 43210
614-292-8511 Office
toliver.22@osu.edu
APPENDIX E

Permission to Use Magadley and Birdi Innovation Survey

Permission to use the Magadley And Birdi Innovation survey

From: rights@wspc.com <rights@wspc.com>
To: "Shafee, Abdullah (student)" <Abdullah.Shafee@pepperdine.edu>

Dear Abdullah

We will be pleased to grant the permission, provided that full
acknowledgment given to the original source in the following format:

Title of the Work, Author (s) and/or Editor(s) Name (s), Title of the
Journal, Vol and Issue No., Copyright @ year and name of the publisher

Kind regards,

Tu Ning

[Quoted text hidden]
APPENDIX F

Permission to Conduct the Study in PDM

To Whom It May Concern:

The department of Makkah Region Police testify that the doctoral candidate Abdullah Mohammad Shafee a student at Pepperdine University in the USA has our permission to conduct his research study in our organization (police department of Makkah region) which concerns the relationship between leaders’ behaviors and innovations in their organization. He was given this letter based on his request. We wish him best of luck.

General Abdualziz A. Alsoly
Director of Makkah Region Police
Dear participant,

My name is Abdullah Shafee. I am currently working on my doctoral dissertation in organizational leadership at Pepperdine University in the USA. The following is a request for you to voluntarily participate in a research study titled: The influence of leaders’ behaviors on innovation in Saudi Arabia, a quantitative study in the police department of Mecca Region.

The survey is going to be in Pencil-and-paper format, and should not take more than 15 minutes. Your participation and the results of this study will benefit leaders and managers in the Mecca police Department as well as the police maker of public security.

The information collected would be completely confidential, and would not ask for any identifying information, such as name or location.

The result would be reported and summarizes as a whole, and would not identify your workplace or other specific identities.

Your participation in the research study is completely voluntary, and you have the right to withdraw or refuse to participate at any time, with no negative consequences to you. There no risks to you in participating in this study.

Please do not hesitate to contact me with any questions or concerns. My email is provided below.

Thank you so much for your cooperation in the research.

Sincerely,

The researcher,

Abdullah Shafee

Abdullah.shafee@pepperdine.edu
الة بسم الله الرحمن الرحيم

الاخ المشترك في هذا الاستبيان

السلام عليكم ورحمة الله وبركاته:

انا الباحث عبّد الله بن محمد الشافعي، أعمل حاليا على أطروحة الدكتوراه في القيادة الإدارية من جامعة بيبيرداين في الولايات المتحدة الأمريكية.

ارجوا منكم التطوع بالمشاركة في دراسة بحثية بعنوان: تأثير سلوكية القادة على الانطلاق في المملكة العربية السعودية، دراسة كمية على شرطة منطقة مكة المكرمة.

الاستبيان سوف يكون ورقي و يفترض ان لا يتجاوز فترة الخمسة عشر دقيقة من وقتكم. شاركنكم و نتائج هذا الاستبيان سوف تفيد قادة ومدراء شرطة منطقة مكة المكرمة.

جمع المعلومات سوف يكون بشكل سري تام، ولن نسأل عن أي معلومات شخصية، مثل الاسم أو الموقع.

النتائج سوق تقدم وتخلص كل. ولن يتم من خلالها تحديد مكان عملك او أي معلومات خاصة بك.

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شكرًا جزيلاً على تعاونكم في هذا البحث.

تحياتي،

عبد الله الشافعي

Abdullah.shafee@pepperdine.edu
NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: August 11, 2016

Protocol Investigator Name: Abdullah Shafee

Protocol #: 16-07-348

Project Title: THE INFLUENCE OF LEADERS' BEHAVIORS ON INNOVATION IN SAUDI ARABIA: A QUANTITATIVE STUDY OF THE POLICE DEPARTMENT OF THE MECCA REGION

School: Graduate School of Education and Psychology

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Judy Ho, Ph.D., IRB Chairperson
APPENDIX I

Boxplots for Leadership and Innovation Scores
APPENDIX J

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