The Empowerment of Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity

Azala M. Al Ghamdi

Western Michigan University, azla4418@yahoo.com

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THE EMPOWERMENT OF ACADEMIC WOMEN LEADERS AT SAUDI UNIVERSITIES AND ITS RELATIONSHIP TO THEIR ADMINISTRATIVE CREATIVITY

by

Azala M. Al Ghamdi

A dissertation submitted to the Graduate College in partial fulfillment of the requirements for the degree of Doctor of Philosophy Educational Leadership, Research, and Technology Western Michigan University December 2016

Doctoral Committee:

Andrea L. Beach, Ph.D., Chair
Sue Poppink, Ph.D.
Erika Carr, Ph.D.
The purpose of this quantitative study was to examine the influence of leaders’ sense of psychological empowerment for women leaders on those leaders’ administrative creativity in both established and emerging universities in Saudi Arabia. The five guiding research questions were used at both established and emerging Saudi universities: (1) what are both male and female leaders’ perceptions of women leaders’ psychological empowerment? (2) What are their perceptions of the administrative creativity among women leaders? (3) How do perceptions of both psychological empowerment and administrative creativity differ between male and female leaders and between established and emerging universities? (4) What other characteristics influence their perceptions of psychological empowerment and administrative creativity? And (5) to what extent do women leaders’ senses of psychological empowerment influence their administrative creativity?

The study population consisted of all the academic male and female leaders at six public universities in Saudi Arabia. A stratified random sampling method was utilized to determine the respondents for this study from each university, stratifying the sample by university type and gender. A total of 377 academic male and female leaders participated.
in this study (for a response rate of 47%). Overall, analysis indicates five significant predictors of the perceptions of administrative creativity for academic female leaders. The significant demographic predictors include gender type of university, while the significant dimensions of psychological empowerment include meaning, competence, and self-determination. Multiple regression analysis showed a high positive influence of psychological empowerment on administrative creativity. This analysis concludes that administrative creativity is strongly affected by psychological empowerment for academic female leaders. Based on these results, it can be concluded that academic female leaders need to be psychologically empowered to reach the desirable administrative creativity at both established and emerging universities in Saudi Arabia.
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Additionally, I would like to give special thanks to my committee members, Dr. Sue Poppink and Dr. Erika Carr, for their knowledgeable input and for their brilliant comments and suggestions.

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Acknowledgments—Continued

By the same token, I am extremely indebted for my great Mom and Dad’s the loving support and continuous care, and I value the unending encouragement of my siblings.

Azala M. Al Ghamdi
# TABLE OF CONTENTS

ACKNOWLEDGMENTS ........................................................................................................... ii

LIST OF TABLES ................................................................................................................... ix

LIST OF FIGURES .................................................................................................................. xii

CHAPTER

I. INTRODUCTION ................................................................................................................... 1

  Women of Saudi Arabia ........................................................................................................ 6

  Psychological Empowerment and Administrative Creativity ............................................. 10

  Statement of the Problem .................................................................................................... 13

    Research Problem ............................................................................................................. 13

    Purpose Statement ............................................................................................................ 16

    Research Questions .......................................................................................................... 17

    Conceptual Framework ..................................................................................................... 17

    Methods Overview ............................................................................................................ 21

    Significance of the Study ................................................................................................. 21

    Chapter I Summary ......................................................................................................... 22

II. LITERATURE REVIEW ....................................................................................................... 24

  Higher Education in Saudi Arabia ....................................................................................... 24

  Women in Higher Education in Saudi Arabia ..................................................................... 28
Table of Contents—Continued

CHAPTER
Administrative Empowerment ................................................................. 33

The History and Development of Administrative Empowerment
in Higher Education .............................................................................. 34

The Concept of Administrative Empowerment .................................... 35

Theories of Administrative Empowerment ........................................... 38

Administrative Empowerment Models ............................................... 42

Dimensions of Psychological Empowerment ....................................... 50

Requirements of Administrative Empowerment ................................ 52

Barriers of Administrative Empowerment of Women in Higher Education ...... 54

Administrative Creativity .................................................................... 57

Concept of Administrative Creativity .................................................. 58

The History and Development of Administrative Creativity for
Academic Female Leaders in Higher Education .................................... 59

Theories of Administrative Creativity ................................................... 60

Components of Administrative Creativity for Academic
Female leaders in Higher Education ..................................................... 65

Requirements of Administrative Creativity for Academic Female Leaders
in Higher Education ............................................................................. 67

Barriers of Administrative Creativity for Academic Female Leaders in
Higher Education ................................................................................ 70

Chapter II Summary ......................................................................... 72

III. METHODOLOGY .............................................................................. 73

Restating the Research Focus and Research Questions ...................... 73
Table of Contents—Continued

CHAPTER

Research Design........................................................................................................... 74
Population and Setting ................................................................................................. 75
Study Sample ................................................................................................................ 75
Instrumentation ............................................................................................................ 76
Pilot Study and Instrument Calibration ....................................................................... 78
Psychological Empowerment Instrument (PEI) ............................................................ 79
   PEI Reliability and Validity ....................................................................................... 80
Administrative Creativity Instrument ACI ..................................................................... 81
   ACI Reliability and Validity ....................................................................................... 82
Data Collection Procedure ........................................................................................... 83
   Data Analysis ........................................................................................................... 85
Ethical Considerations ................................................................................................. 90
Delimitations ................................................................................................................. 90
Limitations ..................................................................................................................... 91
Chapter III Summary ................................................................................................... 88

IV. RESULTS .................................................................................................................. 93
   Participants and Demographic Data ......................................................................... 94
   Review of Reliability for the Instruments .................................................................. 98
   Research Questions Results ..................................................................................... 99
      Results Related to the Research Questions 1 and 3 .............................................. 100
Table of Contents—Continued

CHAPTER

Results Related to the Research Questions 2 and 3 ..................................114
Results Related to the Research Question 4 ..............................................122
Results Related to the Research Question 5 ..............................................130
Results of Separate Regression for Male and Female for Research Questions ....134
Chapter IV Summary ..................................................................................150

V. KEY FINDINGS AND DISCUSSION..............................................................152

Overview of Significant Findings ...............................................................152
Findings Related the Perceptions of Psychological Empowerment ..........153
Findings Related the Perceptions of Administrative Creativity .................154
Findings Related to Differences Based on Gender and University Type ..........155
Findings Related to the Influence of Significant Demographic
Characteristics on PE ..................................................................................158
Findings Related to the Influence of Significant Demographic
Characteristics on AC ..................................................................................162
Findings from the Relationship between Dependent and
Independent Variables .............................................................................164
Findings of Separate Regression by Gender Related to the
Relationship between Dependent and Independent Variables ..................168

Comparison of Current Findings with Previous Research .......................170
Recommendations ......................................................................................172
Recommendations for Further Research .................................................174
Chapter V Summary ..................................................................................175
Table of Contents—Continued

REFERENCES ...................................................................................................................177

APPENDICES

A Survey ..........................................................................................................................197

B HSIRB Approval Letters ...........................................................................................204

C Approvals from Six Saudi Universities ..................................................................207

D Letter to the Vice President for Graduate Studies and Scientific Research at Six Saudi Universities .................................................................214

E Letter to Deans .........................................................................................................217

F Letter to Male and Female Leaders .........................................................................220

G Reminder Letter to the Vice President for Graduate Studies and Scientific, Deans, and Male and Female Leaders .......................................................223

H Second Reminder Letter to the Vice President for Graduate Studies and Scientific, Deans, and Male and Female Leaders ..............................................225
**LIST OF TABLES**

1. Study Population and Sample ................................................................. 76
2. Survey Questions to Collect Data on Participant Demographic Characteristics ...... 79
3. Crosswalk Presentation of Study Variables .................................................. 89
4. Number of Responses to Invitations by Situation ........................................... 95
5. Numbers and Percentages of Male and Female at the Universities .................. 96
6. Numbers and Percentages of Male and Female by University Type .................... 96
7. Numbers and Percentages of Occupation by Gender ....................................... 97
8. Numbers and Percentages of Academic Rank by Gender .................................. 97
9. Numbers and Percentages of Leadership Experience by Gender ......................... 98
10. Numbers and Percentages of Administrative Unit size by Gender ...................... 98
11. Comparison of Reliability Coefficients for the Survey Instruments ....................... 99
12. Frequency Counts and Percentages of Male Leaders' Responses about the Psychological Empowerment for Academic Women Leaders (N = 234) ............. 101
13. Descriptive Statistics for Male Leaders' Responses on PEI Overall and Subscales (N = 234) ................................................................................................. 102
14. Frequency Counts and Percentages of Female Leaders' Responses about their Psychological Empowerment (N = 143) ................................................................. 103
15. Descriptive Statistics for Female Leaders' Responses on PEI Overall and Subscales (N = 143) ................................................................................................. 104
16. Frequency Counts and Percentages of Leaders' Responses about the Psychological Empowerment for Academic Women Leaders (N = 377) ............... 106
List of Tables—Continued

17. Descriptive Statistics for Male and Female Leaders’ Responses on PEI Overall and Subscales (N = 377) ........................................................................................................... 107

18. ANOVA of Total Psychological Empowerment by Gender .................................................. 109

19. ANOVA Results of Meaning by Gender .................................................................................. 109

20. ANOVA Results of Competence by Gender .......................................................................... 110

21. ANOVA Results of Self-determination by Gender .................................................................. 110

22. ANOVA Results of Impact by Gender .................................................................................. 111

23. ANOVA of Total Psychological Empowerment by University Type ................................. 112

24. ANOVA Results of Meaning by University Type ................................................................. 112

25. ANOVA Results of Competence by University Type ......................................................... 113

26. ANOVA Results of Self-determination by University Type ............................................... 113

27. ANOVA Results of Impact by University Type ................................................................. 114

28. Frequency Counts and Percentages of Male Leaders’ Responses about the Administrative Creativity among Academic Women Leaders (N = 226) .................. 116

29. Frequency Counts and Percentages of Female Leaders’ Responses about the Administrative Creativity among them (N = 136) ................................................................. 117

30. Frequency Counts and Percentages of Leaders’ Responses about the Administrative Creativity among Academic Women Leaders (N = 362) ......................... 119

31. ANOVA of Administrative Creativity by Gender ................................................................. 121

32. ANOVA of Administrative Creativity by University Type ................................................... 122

33. Summary for the Regression Model on the Perceptions of the Psychological empowerment ......................................................................................................................... 125

34. Summary for the Regression on the Perceptions of Administrative Creativity ............ 129
<table>
<thead>
<tr>
<th>Table Number</th>
<th>Table Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Model Summary for the Regression on the Perceptions of Administrative Creativity</td>
<td>133</td>
</tr>
<tr>
<td>36</td>
<td>Results of Regressions on Psychological Empowerment Perceptions for Males and Females</td>
<td>139</td>
</tr>
<tr>
<td>37</td>
<td>Results of Regressions on Administrative Creativity Perceptions for Males and Females</td>
<td>144</td>
</tr>
<tr>
<td>38</td>
<td>Results of Regression on the Administrative Creativity Perceptions of Males and Females</td>
<td>149</td>
</tr>
<tr>
<td>39</td>
<td>Comparison of Current Findings with Previous Research</td>
<td>170</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

1. Conceptual framework of the study ................................................................. 20

2. Histogram of scores on psychological empowerment ........................................ 107

3. Histogram of scores on administrative creativity ............................................. 120

4. Distribution of residuals for the regression on perceptions to psychological empowerment ................................................................. 124

5. Residual scatterplot for the regression on perceptions of psychological empowerment .............................................................................................................. 124

6. Distribution of residuals for the regression on perceptions of administrative creativity. .................................................................................................................. 127

7. Residual scatterplot for the regression on perceptions of administrative creativity .................................................................................................................. 128

8. Residual plot for the regression on perceptions of administrative creativity ........ 131

9. Residual scatterplot for the regression on the perceptions of administrative creativity .................................................................................................................. 136

10. Histogram of residuals of model to predict males' psychological empowerment perceptions .................................................................................................................. 136

11. Histogram of residuals of model to predict females' psychological empowerment perceptions .................................................................................................................. 137

12. A scatterplot of residual variances for the male model ...................................... 137

13. A scatterplot of residual variances for the male model ...................................... 141

14. Histogram of residuals of model to predict males' administrative creativity perceptions .................................................................................................................. 141
List of Figures—Continued

15. Histogram of residuals of model to predict females' administrative creativity perceptions ........................................................................................................141

16. Residual scatterplot of the regression on male administrative creativity perception ........................................................................................................142

17. Residual scatterplot of the regression on female administrative creativity perceptions ........................................................................................................142

18. Histogram of residuals of model for predicting males' administrative creativity perceptions ........................................................................................................146

19. Histogram of residuals of model for predicting females' administrative creativity perceptions ........................................................................................................146

20. Residual scatterplot of the model predicting male administrative creativity perceptions ........................................................................................................147

21. Residual scatterplot of the model predicting female administrative creativity perceptions ........................................................................................................147

22. The regression model for the influence of the dependent variables on the independent variables ........................................................................................................165
CHAPTER I

INTRODUCTION

The description of Saudi women as “the oil that has not yet been discovered” (Alhuzeim, 2015) is the inspiration resource behind the thinking and research in this study on how Saudi Arabian society can invest in this untapped human energy source. Despite the recent trend to grant limited opportunities for Saudi women to participate in decision-making in higher education (Alhareth, Dighrir, & Alhareth, 2015), the empowerment of women in leadership positions has not yet reached desirable levels. Indeed universities should invest in human capital and empower their employees will reach their visions and missions more effectively (Shaalan & Kaki, 2013).

Women have been included as the growth of public universities in Saudi Arabia witnessed two major phases. In the first stage seven universities were created, beginning with the King Saud University in 1957, followed by the six public universities at different periods; King Faisal University in 1974 is the most recent of these, which are referred to as the established universities. The second stage is marked by a dramatic growth of newer universities which began with the establishment of King Khalid University in 1998. There are now 22 public universities which represent the emerging universities in the second stage (Ministry of Education, Kingdom of Saudi Arabia, 2015). Women are employed as faculty and administrators in both established and emerging universities.
As a woman educated in Saudi Arabia with experiences working in Saudi universities, I recognize the lack of women’s empowerment in higher education. I worked as a faculty member at both established and emerging Saudi universities and earned an undergraduate degree from an emerging university and a master’s degree from an established university, and, additionally, I had the opportunity to study in a PhD program abroad at an American university. I have developed a unique perspective that compels me to discuss female leader empowerment in Saudi universities.

Based on both my experiences and conversations with female Saudi academic leaders, I have observed a discrepancy between established and emerging Saudi universities regarding the status of women and their empowerment at the university level. Surprisingly, academic women leaders in the established universities appear to have a greater level of empowerment than those in the newer, emerging universities. One might think the younger universities would be more progressive. At this time, though, the emerging universities are less flexible than the established universities. In these gender-segregated institutions, women leaders, particularly in emerging universities, follow the decisions that come from men and there is no clear strategy to empower academic women leaders. However, within the established universities, even though the education meets cultural expectations and norms with its separate male and female schools, the women Saudi leaders seem to have more opportunities to make decisions concerning the management of their students, programs, and schools. While this contrasts to women leaders in emerging institutions, at the established universities, is an unexpected, visible though still rare occurrence. Furthermore, it is inconsistent and not formal and more like the milieu of emerging universities than not. Nonetheless, women’s empowerment is
lacking, Saudi women’s leadership even in these fewer established universities, and the leadership is certainly not formalized. Furthermore, women’s academic leadership depends on many variables, such as the woman herself and her colleagues.

Even though the landscape of women’s leadership emergence has been steadily shifting in the majority of world countries, and despite the increase in Saudi women’s educational achievements, disparities persist due to many factors. Some of these include the negative stereotypes regarding women's ability to lead, traditional beliefs that inspire a lack of trust in women, and an unwillingness by higher education leaders to discuss this issue. Albeit the people of the Kingdom of Saudi Arabia will not accept a fully feminist approach, nor do I advocate one, as may be the case in the United States, for example, there is a tremendous shift that can occur within the cultural framework to empower Saudi women leaders in academia. With the increasing higher educated Saudi woman population, the demand for these women to move into leadership positions and to seek empowerment will press toward future change.

Currently, the empowerment of Saudi women in higher education has become an urgent requirement to fulfill their leadership role at this time, more than ever, due to the segregated education system where women are completely in a separate section apart from men. No men exist in these sections to actually do the leading there. In the current situation, male leaders communicate orders to women leaders whose highest position is a vice dean or a vice chair in the women's section, and many women leaders are not comfortable having a conversation with a male who is not a family member. These realities stem from the cultural traditions and beliefs that cause a reluctance to hold such positions by women in academics. Women leaders avoid contact with the male leaders,
regardless of their authority or position, forcing these women to be dependent on paper and, less common, electronic communications, which is unfavorable. These practices that puts all leaders in a purely bureaucratic situation. This is especially problematic in light of the weakness of electronic communication in many emerging universities. Furthermore, distant communication diminishes the women leaders’ abilities to express concerns or necessary changes about all the dimensions of their issues, since no one knows better than they do. These women are stuck in indecision without enough authority, lack training how to deal and communicate with their administrators, and fear making any decisions without approval. Often the most experienced women avoid leadership positions, leaving the job to less experienced women. This exacerbates a situation that is less about encouragement than about the need for justice and empowerment for all women working and studying in higher education fields.

Leadership empowerment for women is ultimately a necessity for delivering the best education to the women in universities, but this does not have to be in conflict with the accepted and desired segregated education system in Saudi Arabia. A common attribute that I also have observed in my university experiences is finding appropriate solutions to empower women to hold the same caliber senior positions as men, such as president, dean, and chair, while still maintaining the commonly accepted cultural segregation in education that adheres to Islamic Law. No higher education institutions seem to be engaging in progress to empower women in their sections of the universities. This is a viable possibility without moving beyond the customs and traditions of Saudi Arabian society. However, the status quo of senior leadership is a male privilege preserved for men, even when it comes to leading the women’s sections. The education at
emerging universities in Saudi Arabia is physically separated, with men being on a completely separate area of the campus from women. The reality is women are not being trained, acknowledged as capable or desirable to be in leadership positions, even if a woman possesses more skill or experience than a man, they still not served in senior level positions in some universities. The only exception is Princess Nourah Bint Abdulrahman University since it is designed exclusively for females and, by creative design, all senior positions are held by women. Yet at the other Saudi universities, a woman may be permitted to occupy a position of vice dean or vice chair but she cannot independently make decisions about the women’s sections in isolation without leadership from the men's section of the university. This shows the pervasiveness of the domination of the male leadership, even though the educational aspects of each of these segregated sections within universities are conducted and otherwise equal.

This state of affairs has prompted my thinking about culturally aligned strategies to empower women leaders at both established and emerging Saudi universities that would grant women leaders decision-making authority to fully support the female university students they have responsibility for educating. Men may not have knowledge of or be sensitive to female students’ issues regarding faculty or peer relationships, or other issues related to career, which in many cases require exploration and conversations to support a most beneficial path for a student. However, most importantly, this study is not about emphasizing the strengthening of Saudi women over men or giving them the right to lead men in particular. Rather, it is about giving Saudi women the right to lead women’s sections in Saudi universities by moving into senior positions, such as dean or chair with full leadership responsibility and to be independent from the men’s section,
which totally corresponds to Islamic Law. Therefore, the current study focuses on Saudi higher education under Islamic Law, specifically the status of women leaders, women’s psychological empowerment, and its relationship to their administrative creativity, which is the concept that women can make their own mark on an organization to improve or better it with their originality (Amabile, 1996).

**Women in Saudi Arabia**

The Kingdom of Saudi Arabia (KSA) is an Islamic country that most completely applies the Sharia (Islamic) Law, making it a target for criticism due to mistaken beliefs by Western and other societies, particularly with regard to the issue of Saudi women's rights (Islam, 2014). In fact, Islam not only allows women the right to education, but also the right to inherit and own property, as well as the full participation in all aspects of life (AlMunajjed, 1997). Therefore, any restrictions on the women’s movement to leadership positions in the workplace and society can be attributed to social and traditional cultural norms rather than religious edicts for women’s rights based on Islamic Law (Hamdan, 2005). Given these norms, women often suffer from society's perception that they are unable to lead because of being female. This bias has become the most challenging aspect of holding a senior leadership position for women (Gerdes, 2006). Saudi women are not the only women negatively impacted by this bias. Gonzalez (2010) stated about women in the United States that, because of society’s perceptions about women’s nature, they are not seen as good leaders despite their distinguished characteristics. Similarly, according to the Catalyst Organization (2005), the main reason for the lack of equality between men and women in leadership positions in most societies around the world is the negative
stereotypes that are held by a society (Catalyst, 2005). Therefore, Saudi Arabia is not unusual in its perception of women as less-than-capable leaders.

That said, however, the Saudi government is setting new policies regarding women in keeping with the society’s beliefs (Alhareth, Dighrir, & Alhareth 2015). When the Saudi government saw that women are active partners with men in various fields, in spite of customs and traditions that govern the society and the fierce criticism from outside community, the KSA government sought to empower female Saudi leaders. For example, King Abdullah’s crowning achievement in women’s rights during his ruling era (2005 to 2015) involved initiating momentum for reforms via the promotion of higher education opportunities for women in two key areas: supplying higher education study abroad scholarships in 2005 and facilitating women who wish to join the workforce as highly educated employees. In 2013, thirty women were appointed to Saudi Arabia’s Shura council, an advisory body that provides the country’s cabinet with its recommendations. In 2015 the Saudi government announced that women would have the right to run for office and partake in municipal elections. These ground-breaking acts signified the future development of women’s rights in the KSA (Ministry of Education, 2015). So, while the idea of empowering Saudi women exists at the government level, cooperation between the government and society is needed for meaningful and lasting change (Alhareth, Dighrir & Alhareth, 2015), which would include the field of higher education.

Interestingly, in recent years, Saudi women have taken confident steps to prove themselves locally and internationally in the education sphere. Despite the various restrictions, the various restrictions that ensue when Sharia Law is applied culturally,
Saudi women have demonstrated to the world with all determination and patience their ability to overcome difficulties in all areas of employment and higher education life. They drew the attention of international observers through their achievements in numerous areas of science and scientific research, often outperforming their male counterparts (The Ministry of Higher Education, 2014).

According to the Global Gender Gap Report 2006, 2009, 2012 and 2015, Saudi Arabia was estimated at 0.32, 1.50, 1.12 and 1.04, respectively on the gender gaps in enrollment in higher education. The past 10 years KSA has made strong progress by narrowing their gender gaps. The ratio of the enrollment in higher education between genders was dramatically increased in 2009 by 1.50, while the number was decreased in 2015 by 1.04, which speaks to the need to search for the reasons that caused the low enrollment rates in higher education compared to previous years. This study does not seek to answer why this occurred, yet understanding perceptions about Saudi women’s psychological empowerment and administrative creativity in higher education may point to some possible understanding.

The KSA has made significant improvements in their own education gaps of 10 to 12%. Thus, Saudi Arabia has currently closed 99% of its education gender gap, which is a positive step in reducing the gender gap in leadership positions. The reasons for this is the increasing number of higher education institutions around Saudi regions during the past ten years, which dramatically ensure that all women can have the opportunity to access them (Ministry of Education, 2015). Moreover, women in the rural areas have the opportunities to choose their desirable disciplines where they were not available in the past decade.
More importantly, the Saudi government highly supports Saudi women to study abroad. For example, during his reign, King Abdullah provided women the same golden opportunity to study overseas as men, which is considered as a tremendous step for women, especially in a society that gives men priority over women (Alhareth, Dighrir, & Alhareth, 2015).

Increasing education of women may be having an impact on women in the workforce. Despite the higher rates of women’s enrollment in higher education compared to men in Saudi Arabia, the available opportunities for them in the workforce are much lower than their male counterparts. This is confirmed by the World Bank report (2016) which indicates that the participation of Saudi women in the workforce has not changed appreciably in the past eight years. In 2005 working Saudi women constituted 18 percent of all workers, and by 2014 their participation in the workforce had only risen by 2 percent.

Educated women as leaders are slowly becoming evident in the higher education. While only 6.1 percent of Saudi women hold leadership positions in the educational sector (Ministry of Economy and Planning, 2010), this does not measure the true leadership skills and women’s ability to exercise decision-making as a leader. They simply have not been given the opportunity to utilize it.

For highly educated Saudi women, the education sector is considered the first option for employment for the very reasons also attributed to preventing women from empowerment as leaders. Both religious and social traditions of all female environments support the desirability of education as a field where women feel comfortable with the norms and laws that prevail in their culture. Under Sharia Law, it is women who have the
right and responsibility to educate other women. As a result of the safety of the segregated educational environments, they recognize their opportunities to claim empowerment and independence with the support of other educated university women colleagues. Their self-assertion is increasing. Nonetheless, female academic leaders at both established and emerging Saudi universities are facing many challenges. These challenges might negatively affect their administrative creativity in that they would have limited representation in the committees and administrative councils, insufficient powers granted to them, be removed from the centralization of decision-making in many universities, and experience a low level of participation in the formulation of strategic plans as well as the weak communication with the male leaders (Ruwais, 2010).

Alshaalan and Kaki (2013) found that there are barriers to the empowerment process for females in Saudi universities, which affects the quality of the entire university’s performance. For example, they found that the factors that prevent women’s empowerment in higher education include: extreme centralization, the predominance of working individually, routines at work, management traditions, lack of consultation in decision-making, and the low efficiency of employees.

**Psychological Empowerment and Administrative Creativity**

Over the last several decades, the study of perceptions of workplace empowerment has proven to be a fertile and inspirational area. The previous researches (e.g, Cingöz & Kaplan 2015; AL- Magableh, 2014; Messaoud, 2014; Çekmecelioğlu & Özbağ, 2014; Zhang & Bartol, 2010; Spreitzer, 1995) report that employees’ empowerment forms distinguishing marks in the way of their creativity. The concept of empowerment involves providing employees with the freedom and the ability to participate in decision-
making in their organizations (Conger & Kanungo, 1988; Spreitzer, 1995; Thomas & Velthouse, 1990; Wilkinson, 1998). Previous studies divided empowerment into types; structural empowerment and psychological empowerment. Structural empowerment can be defined as the opportunities of employees to share in the decision-making processes by accessing the organizational structures and policies through sufficient communication, resources, support and information (Obrien, 2010; Spreitzer, 1995; Wallace, Johnson, Mathe, & Paul, 2011). Psychological empowerment can be described as the process of increasing the employees' sense of self-efficacy in the four dimensions which are meaning, competence, self-determination, and impact (Spreitzer, 1995; Wallace et al., 2011). These will be the primary focus of the current study. According to Conger and Kanungo (1988), Spreitzer (1995), and Thomas and Velthouse (1990), the employees’ creativity can be impacted by the value of: a work goal or purpose and eagerness to accomplish assigned tasks (meaning); the individual's belief in his or her ability to efficiently perform the activities of work (competence); individual's sense of having the autonomy to choose and organize his or her work tasks (self-determination); and an individual's feeling of how much he or she can influence the strategic and operational results of the organization (impact). Meeting these psychological components plays a critical role to motivate employees (Thomas & Velthouse, 1990), which will considerably enable individuals to search for new and better innovative ideas of doing things, and then reach high levels of creativity (Amabile, 1996).

The creativity term frequently refers to the production of novel and useful ideas in the organization (Amabile et al., 1996, p.1155). Accordingly, in this study, creativity can be described as the capacity of academic female leaders in the Saudi universities to
devise modern management ideas and practices in light of the possibilities of available resources to ensure solutions for the potential administrative problems as well as ensure the quality of the administrative work. Specifically, when employees are psychologically empowered, they will be motivated to implement the assigned role and devote their effort to treating a problem from different perspectives, as well as to search for an innovative solution by utilizing a variety of alternative sources and information (Zhang & Bartol, 2010).

Academic female leaders in Saudi Arabia have talents and abilities, yet they confront pressures and face a lack of confidence in their capability from both their men presidents and society. Unfortunately, with these significant challenges, as female leaders they also must deal with other issues, such as exclusion, minimization of the importance of their work, a resulting low self-confidence, and a fear of responsibility. Consequently, their creativity has become a serious issue year after year. Despite some individual successes, the academic female participation in local and global events has not lived up to the expected level of their creative contribution related to increases in opportunities and the promotion of higher education for women. Although such phenomenon of prominence of some women in higher education is more pronounced in the emerging universities, the female academic leaders in the established universities are not much more fortunate.

Reasonably and ultimately, such a phenomenon goes the opposite direction from Saudi national goals to be recognized for its educated population and for its universities’ abilities to participate a global world; yet the Saudi universities face great risks in losing their worldwide education and competitive advantages if they fail to include women in
the leadership positions where they can fully participate and contribute to the national vision. In view of this, the aim of this study is to examine the influence of the perceptions of psychological empowerment of female academic leaders by both genders of academic leaders and its impact on the women leaders’ administrative creativity at Saudi universities.

Statement of the Problem

Research Problem

The increasing visibility of Saudi Arabian women's creativity in all aspects of Saudi life has become a persistent and encouraging feature of our time. Discussing women’s rights and creativity has become so common that it is like “a preferable coffee” at Saudi meetings. Almost every daily press, it seems, brings fresh examples of the achievements and creation of Saudi women, whether in the public or private sectors.

However, despite the flow of conversation, there is virtually little choice for women regarding their actual leadership opportunities. Too often these achievements and their creation occur at the individual level in relation to their individual ambitions and efforts, rather than occur at an organizational level. Women envision their efforts are spreading seeds for a field of blooming flowers, yet there is no bed of roses—only rose colored glasses. Today women in leadership positions in the educational field keep looking ahead seeing continued obstacles that make passing along this road challenging for the mainstream of Saudi women and, especially, leaders in higher education.

It is this vast majority that impels us to study the reality of women’s empowerment and how to navigate the next phase in the field of women’s educational leadership where it most concerns women leaders. This is suitable since the platform of education is the
most dominant career area for Saudi women and traditionally they have been attracted to it. Experienced leaders already exist here who have not exercised their full leadership opportunities. Indeed, what Saudi women leaders currently have and could utilize in relation to their empowerment and creativity—the ability to come up with new ideas for leadership practices and problem-solving that meet their unique, needs—is immensely disproportionate to the number of women working and being educated in the leadership field. The current situation of female leaders, which is a low level of administrative empowerment and psychological empowerment, now requires many scientific and research studies to find the reasons behind this problem. The issue of empowerment of Saudi women has remained a sensitive subject for serious research because of Shari Law and its practices and perceptions; therefore, it has been avoided intentionally by researchers for many reasons. The dominant social culture projects how the role of women does not exceed the home boundary and child-rearing is one of them (AlMunajjed, 1997). Moreover, questioning women’s ability to fulfill the requirements of many job functions, particularly in leadership positions, is another reason.

Thus, attention is lacking to studying the topic of psychological empowerment and its relationship to administrative creativity, particularly for female academic leaders in higher education in Saudi Arabia. Although there are some studies at the local level in Saudi Arabia that have addressed the issue of empowerment, a gap clearly exists because most of them have been limited to a specific university. For example, AL-Magableh and Otoum (2014) and Al-Da’di (2011) address the administrative empowerment and its relationship to the administrative creativity at Najran University and Umm Al-Qura University, respectively. Also, Alasmar & Alhuthaili (2014) discuss the faculty members’
empowerment at Umm Al-Qura University and King Abdulaziz University, while Shaalan & Kaki (2013) study activating the mechanisms of empowerment to achieve quality at Princess Nora bint Abdul Rahman University. However, none of these more narrow studies have addressed specifically the issue of women leaders’ empowerment at both established and emerging Saudi universities. Similarly, the relationship between the empowerment and administrative creativity has not been sufficiently researched, except for some less-than-adequate attempts (e.g. Al-Da'di, 2011; Algahtani, 2011; Alharbi, 2008) which were mostly restricted to a specific institution and none of them addressed psychological empowerment for academic female leaders and its relationship to their administrative creativity. Furthermore, some of these studies addressed only men's empowerment and creativity.

The issue of psychological empowerment for women academic leaders in Saudi universities is not the only purpose for this study, but the purpose of this study is to deeply explore the impact of academic leaders’ sense of psychological empowerment on the increased level of administrative creativity for women leaders in Saudi universities. Previous studies (e.g. Cingöz & Kaplan, 2015; Messaoud, 2014; Çekmecelioğlu & Özbağ, 2014; Wei, 2014; Wang, Zheng & Zhao, 2012; Ghorbani & Ahmadi, 2011; Zhang & Bartol, 2010; Johnson, Layne, & Terpheny, 2009; Knol & Linge, 2009; Zhang, 2007; Spreitzer, 1995) have shown there is such an impact regarding issues of women’s psychological empowerment in different higher educational organizations. This influences and encourages the researcher to adopt this topic that will explore the reasons why the vast majority of women leaders, as previously mentioned, cannot overcome these
obstacles faced in their work environment and get to an empowered level to begin to achieve administrative creativity.

Therefore, this study comes at an opportune time in response to the plight of Saudi women in leadership positions to examine the reality of the higher education environment. I am not alone in my desire to research the emergence of more empowerment of women leaders in the Saudi Arabian work world. I am heartened by the top leaders of my government with the recent announcement of the Saudi Vision 2030, on April 25, 2016, because it includes a greater embracing of women in all work facets. The Saudi Arabian government itself has recognized women are essential elements to the strength of Saudi society, as they represent more than 50 percent of Saudi university graduates. Items 2.1.3 and 2.1.4, in particular, of the new Saudi Vision (Saudi Press Agency, 2016) include language that the country will continue to invest in their energy and talents and to empower them to get their rights. The Vision also calls for opportunities to build a future for women and contribute to the development of the society and economy by raising the proportion of them in the workforce from 22 percent to 30 percent. The government’s recognition that women deserve empowerment confirms that this study is addressing a problem for females not only in the academic workplace, but also for our society as a whole.

**Purpose Statement**

The purpose of this quantitative study is to examine the influence of leaders’ sense of psychological empowerment for women leaders on their administrative creativity in both established and emerging universities in Saudi Arabia. Specifically, this study will explore: (a) both male and female leaders’ perceptions of women’s psychological
empowerment and their perceptions of the administrative creativity among women leaders, (b) how do perceptions of both psychological empowerment and administrative creativity differ between male and female leaders and between established and emerging universities, (c) what other characteristics influence their perceptions of psychological empowerment and administrative creativity. The research is guided by the following questions:

**Research Questions**

At both established and emerging universities in Saudi Arabia:

1. What are both male and female leaders’ perceptions of women’s psychological empowerment?
2. What are their perceptions of the administrative creativity among women leaders?
3. How do perceptions of both psychological empowerment and administrative creativity differ between male and female leaders and between established and emerging universities?
4. What other characteristics influence their perceptions of psychological empowerment and administrative creativity?
5. To what extent do leaders’ senses of psychological empowerment for women leaders influence their administrative creativity?

**Conceptual Framework**

The conceptual framework for this study illustrates the independent variable as the psychological empowerment, while the dependent variable is administrative creativity. The first square represents the stereotypical image that held by Saudi society
against women and their leadership ability due to its prominent role in women’s empowerment, but it is not be a part of the current study. The first rectangle represents the four dimensions of psychological empowerment which are meaning, competence, self-determination, and impact adopted from Spreitzer (1995), while the second rectangle shows the demographic characteristics for the current study including university type, occupation, academic rank, leadership experience, unit size, and gender. The square in the middle represents the perceptions of academic male leaders regarding the level of psychological empowerment that are obtained by academic female leaders and the level of their administrative creativity at Saudi universities. Then, the final rectangle represents administrative creativity as it has five components according to Treffinger model (Dunbar & Kinnersley, 2011). For academic female leaders at Saudi universities, this collection of characteristics is reflected through their ability to immediately respond to various changes and, given the available resources, to be able to generate creative solutions to work problems, as well as create innovative initiatives that lead to competition and continuous creativity (Zhou & George, 2001).

The stereotypical role of women in Saudi society and the negative view toward their ability to succeed in a variety of work environments plays a primary role regarding society’s lack of confidence in women’s competence and their ability to occupy leadership positions. Unfortunately, this view of Saudi culture is not limited to men only, but it is also used by the women toward themselves. We cannot ignore the influence of the culture and its prevalent stereotypes.

In the present research, we argue that the perceptions of both academic male and female leaders regarding the concept and level of psychological empowerment of women
leaders in higher education likely will impact the rates of administrative creativity for
women leaders. This means that high levels of administrative creativity for academic
female leaders in Saudi universities will be diminished due to the negative perceptions of
women primarily by men; yet male perceptions affect females’ perceptions of both
themselves and other females. How women look at themselves relates directly to the first
of the four dimensions. Meaning is the value of work that a person attributes to oneself,
and this self-perception is not created in a vacuum. Since competency, or self-efficacy, is
the individual’s belief in one’s own ability to perform, and this does not happen in
isolation, it’s important to recognize that belief in self is highly influenced by external
factors, too. For this reason, it is a logical influence, especially in Saudi culture, that male
perceptions of disbelief in women’s abilities is a dominant factor in hindering women
leaders in academia as elsewhere in the Saudi culture. Self-determination and autonomy
for women exists, but the choice to be a decision-maker is complicated by pervading
perceptions, and these perceptions for women in academia arrive mostly by their male
counterparts. This all relates to the fourth dimension of impact, the degree to which
individuals can influence the workplace outcomes. Consequently, women leaders lose the
reins of decision-making, either not being given them or not assuming what they might,
and therein, experience a loss of self-confidence and value in their roles.

On the other hand, administrative creativity can flourish when women have a
sense of meaning, believe in their own competency, feel confident in their determination
to assume senior level leadership roles, and hold the possibility of leaving an impact from
their efforts. This creativity in its ideal has: fluency, which is the ability to have access to
any number of solutions; originality, the term that defines the ability to find new ways to
solve problems; flexibility, which allows choice and variety in finding and getting to solutions related to any type of problem; and, a sensitivity to problems, a skill that is an ability to rely on instinct and logic to understand problems and see solutions; accepting risk, the last major component of creativity, is seeking new strategies without fear of outcomes (Dunbar & Kinnersley, 2011).

The current study will seek to verify the validity of these speculations in the environment of Saudi universities through its conceptual framework (Figure 1).

![Conceptual framework of research study. (Al Ghamdi, 2016)](image-url)
Methods Overview

This study used a quantitative research method and utilized a survey to collect information regarding the population’s demographics and the level of psychological empowerment and administrative creativity for academic female leaders at Saudi universities. A survey was chosen because it is an appropriate instrument for obtaining opinions, feelings, beliefs, attitudes, as well as allowing for some generalizations regarding the population (Creswell, 2013). Since no study has examined the relationship between psychological empowerment and administrative creativity for academic female leaders at Saudi universities, a survey of psychological empowerment from Spreitzer (1995) and a survey of administrative creativity from Zhou and George (2001) were adapted for the purpose of this research. A pilot study was conducted during the summer of 2015 to measure the reliability and validity of my study since it will be conducted in a different environment. After obtaining the Human Subject Institution Review Board (HSIRB) approval at Western Michigan University, the survey sent to 800 male and female leaders at six Saudi universities inviting them to participate in the online survey. Data analyzed by using descriptive statistics and multiple regression.

Significance of the Study

The outcomes of this study may enable leaders in the higher education field, in particular, to understand critical issues and challenges that surround academic female leaders and empower them to have equal opportunities as their male counterparts. More importantly, this study will open the eyes of Saudi educational leaders regarding to the right of women to be independent of the men’s sections in both established and emerging Saudi universities and to be able to fully lead women’s sections.
This study will inform officials in higher education in Saudi Arabia of the perspectives of the participants about the reality of the leaders’ sense of psychological empowerment for women leaders and how that influences their administrative creativity, potentially influencing debate and discussion of practices and establishment of new policies. It may also influence implementation of the Saudi Vision 2030 in the education field. Moreover, this study will contribute to the enrichment of the concept of empowerment and its relationship to the positive and beneficial impact administrative creativity can have within educational circles in Saudi higher education.

Therefore, the significance of this study can be reflected in its value in terms of continued research in this area, as well as what the results of this research will add to academic female leaders in Saudi universities. This study will open the way to many researchers to study this field and research about new useful administration concepts that will develop the administrative creativity for academic women leaders in Saudi higher education. It is expected that this study will serve as a breakthrough for further future studies in the field of women’s empowerment in Saudi Arabia.

Chapter I Summary

Chapter one provides an overall introduction to the reality of the level of empowerment for academic female leaders at both established and emerging universities at Saudi universities and its relationship to their administrative creativity. The purpose of the study was described, and research questions were presented, exploring the level of psychological empowerment and administrative creativity for academic female leaders and the relationship between these two variables. The significance of the study and
methods overview is addressed. The conceptual framework that supported this study also was designed. Moreover, the definitions of terms that used in this study were discussed.

Chapter two outlines the literature that supported this study. This chapter begins with an overview of the higher education in Saudi Arabia and Saudi academic female leader’s status in higher education. Further, the literature examined the administrative empowerment theory with a focus on psychological empowerment as well as administrative creativity with supporting reports from previous studies. Finally, later chapters examine the method that is used in this research for data collection and analysis, findings and interpretations, conclusions, and the recommendations.
CHAPTER II
LITERATURE REVIEW

Chapter II includes an overall review of relevant literature that will serve as a foundation for the current study. The review of literature for this research is organized into three main sections. The first section focuses specifically on higher education in Saudi Arabia and women’s status in Saudi higher education. The second section represents administrative empowerment in this field, while the third section discusses administrative creativity.

Higher Education in Saudi Arabia

The first efforts to educate Saudi Arabian citizens in higher education were commenced when the government sent 14 scholarship students, all males in various disciplines, to Egypt in 1927 (Alaqeel, 2005). The actual beginning of higher education institutions in Saudi Arabia occurred almost 20 years later when the College of Sharia in Makkah was established in 1949 (Ministry of Higher Education, 2013b); now it is a part of Umm Al-Qura University. This was the initiation of formal higher education for the country, and males had the exclusive right to this education (AlMunajjed, 1997). Interestingly, it was not long after this, in the early 1960s, that some institutions allowed women to obtain higher education degrees. However, these institutions designed with programs for women, they designed them for the women to study at home, attending universities only to complete exams (Alaugab, 2007).
Since then, the establishment of many colleges continued in Saudi Arabia until the first public university was established in 1957, which was King Saud University in Riyadh. King Saud University was founded with only a College of Arts, though it was later followed by the College of Sciences (Alaqeel, 2005). These small colleges were later incorporated into public universities. Private universities did not begin in Saudi Arabia until the Dar Al-Hekma University was founded in 1999 (Ministry of Education, 2016).

Saudi public universities fall under two types of categories and are known as either established universities, or the early original universities, and the emerging universities, which are all newer institutions. The established universities contain seven universities which started with the King Saud University in 1957 and followed by the six public universities; King Faisal University 1974 is the latest one of them. The newer, emerging universities now total 22 universities and are still growing. These began with the establishment of King Khalid University in 1998 and the most recent is Jeddah University 2014 (Ministry of Education, 2015).

The Ministry of Higher Education in Saudi Arabia was founded in 1975 based on Islamic Law, with responsibility for implementing Saudi governmental policies in higher education. However, in 2015 the Ministry of Higher Education was integrated with the Ministry of Education into a single ministry sharing the name of the Ministry of Education (Ministry of Education, 2016). Within the Ministry of Education, there exists the conventional hierarchy of the government. This hierarchy, under which the entire higher education system is based, derives its authority from the King and the Council of Ministers, as do all other official organizations in the Kingdom that deal with matters that
serve the population. Similar to how it runs other ministries, the Saudi government is responsible for funding, strategic planning, and top-level decisions regarding policy for the Ministry of Education. The government almost exclusively separates men and women in the area of higher education; this is accomplished mostly through continuing the tradition of gender-specific (all-male, all-female) higher education, which constitutes the mainstream higher education institutions. Despite the fact that gender segregation is maintained, ample educational opportunities are open to women today. Most students enroll in universities after high school, especially female students, because education is free of charge without any discrimination for both genders; it is also an acceptable path to prepare for careers in education, the medical field, and the business world. Women comprise a majority of the university student population (Ministry of Education, 2016).

Saudi higher education depends on the generous funding and support from the Saudi Arabian government. Higher education funding increased by 155.9 percent during the period from 2009 to 2013, with expenditures of more than $8 million in the year 2009. This funding continued to increase significantly until higher education spending reached $21 million in 2013 (Ministry of Higher Education, 2013a). Spending on higher education represents 8.6 percent of the total Saudi government funding. Alongside the government subsidy, Saudi universities depend on numerous self-financing sources, such as university endowments, university enterprises, research chairs, and paid programs, as well as the standard grants and donations.

Saudi universities have spread dramatically across the Saudi Kingdom during the past 10 years. This era, from 2005 to 2015, mirrors the reign of King Abdullah bin Abdulaziz, and it is considered the “golden age” of higher education due to its
unprecedented expansion. Under King Abdullah’s rule, higher education witnessed not only tremendous strides in terms of the quantity of opportunities for higher education, but also in terms of the quality. For instance, the number of public and private universities has increased by 70 percent, burgeoning from 8 to more than 40 universities (Alayeeear, 2015).

Among the most remarkable developments in Saudi higher education is the King Abdullah Scholarship Program (KASP), which began in 2005 to support study in various scientific and theoretical disciplines. Although launched recently in history, KASP is the largest scholarship program in the history of Saudi Arabia (Saudi Arabia Clutter Mission, 2013). Initially, KASP sponsored approximately 9,000 Saudi students to study abroad. That number of scholarship increase significantly to 140,000 Saudi students in only six years (Zeigler, 2012). The trend continued, as 2014 saw the number increase an additional thirty-two percent, reaching its peak at 185,000 (Ministry of Finance, 2015). This trend represents a 20-fold increase within eight years, a significance that cannot be overstated.

Women were not included in these early scholarships, but were incorporated into the program sponsorships more recently. Despite the fact that the initial education was available exclusively for males (AlMunajjed, 1997), today both genders have equal access to higher education in the country (Ministry of Higher Education, 2015). According to the Saudi Ministry of Higher Education statistics (2013a), Saudi women in public universities accounted for an unanticipated 53 percent of the total enrollment in tertiary education at the end of 2012, while the proportion of males was 47 percent. This
generous sponsorship for higher education accomplishment may be a contributing factor in the increasingly educated female Saudi population.

**Women in Higher Education in Saudi Arabia**

Women’s higher education in Saudi Arabia was first established in 1962 in Riyadh through a special program called “home school”, with education off-campus except for exams. In 1967, the King Abdulaziz University, in Jeddah, began to allow women to attend campus and the Girls Education College was started in Makkah. Since then, other separate institutions have opened schools/sections for women under the Ministry of Education (Alaugab, 2007). Few women attended universities in the early years and their numbers increased slowly at universities until the latter 1990’s. At first families were not accepting or encouraging of women being educated, or if they were, they preferred to have the women in their families study at home. The objection to women becoming educated has diminished. The number of women in higher education has continued to increase.

The reign of King Abdullah bin Abdul Aziz was also the women’s golden era of education. He significantly supported the empowerment of Saudi women in various fields, especially in the field of education. King Abdullah’s crowning achievement involved initiating the necessary momentum for women’s rights reforms via the promotion of enormous opportunities for Saudi women. For instance, in 2005, he supplied Saudi women study abroad scholarships at the same rate as men. The number of women studying abroad on scholarship has significantly increased from approximately 3,879 in 2004/2005 to around 35,700 in 2011/2012 (Ministry of Higher Education, 2013b). Alongside this and in complement to it, he also facilitated women who wished to
join the workforce. In 2011, an historic decision in the history of Saudi women was issued by King Abdulla to allow Saudi women entry as full members into the Consultative Assembly of Saudi Arabia or Shura Council, the formal government advising body, imparting on them the rights to vote and be elected to municipal councils (Khadija Bint Khuwaylid Center, 2013). This was viewed as both another symbolic act as well as an action of real change, indicating a future of continued development regarding women’s rights. indicating the future continued development of women’s rights.

Additionally, King Abdullah made it a point to spend government funds specifically on women's education at home. Princess Nora bint Abdul Rahman University, which has its origins in 1970 when a single, all-female college was started in Riyadh, opened a modern, high-tech campus in 2011 thanks to a $5 billion government grant. Princess Nora University is now the largest women's university in the world, with an expected enrollment of around 50,000 female students (Ministry of Higher Education, 2013a).

Saudi higher education obtains unlimited support for change from the government both financially and from the creation of new opportunities. Therefore, the Saudi government strives to support Saudi women to complete their higher education. For example, the field of scholarships was open for them and paves the way for them to contribute to the economic, cultural and social development in the Kingdom of Saudi Arabia. In order to achieve that, the Ministry of Higher Education has adopted a series of strategies based on the necessity of providing educational opportunities for Saudi women; this includes meeting the needs of the community of current and future women cadres congruent with the nation’s developmental plans and objectives, in order that graduates
will fulfill the qualifications to meet these needs (Ministry of Higher Education, 2013a).

In addition to new policies implement during the golden age, it is clearly obvious that the
government’s new Saudi Vision 2030 also includes both workforce and education plans
for women. As such, there are expectations that women will remain in the workforce and
in education and be a strong part of the society’s development, thereby confirming for
women that they are an important and vital group and the country will facilitate the roles
for them.

Despite the small number of women attending and involved in higher education in
education’s early development in Saudi Arabia, nonetheless, a small proportion of
women has had a role and a presence in higher education since practically the beginning.

Saudi women have demonstrated their right to tertiary education within a short period.

Women they have proven that, given the opportunity, they will excel without limitations.

As the proportion and numbers of women have grown in higher education since the
1960s, it is clear their achievements are no less significant or important than the research
contributions of their male counterparts, a fact clearly evident through their recent
attainments. Saudi women have attracted international attention through their
accomplishments in the various fields, especially in the fields of science and scientific
research (Ministry of Higher Education, 2013a).

For instance, in 2012, one Saudi woman registered three patents in the field of
nanotechnology and solar cell technology at IBM in the USA. In the pharmaceutical
field, a female research team from the department of the College of Pharmacy at King
Saud University obtained two patents from Europe and the United States in medicine,
having discovered previously unknown effective compounds in the areas of hypnotic
drugs and muscle relaxants. Similarly, in the environmental field, human and sustainable development has progressed due to the work of a Saudi woman who was added to the NASA institution, as a regional researcher with NASA’s scientific team. Her mission was to initiate scientific research development of interest to the Gulf (Ministry of Higher Education, 2013b). It was also remarkable that one female Saudi scholar received multiple awards for her contribution to science and medicine, including the including a National Institute of Health Director New Innovator Award in 2009, having a grant worth three million dollars, given to cover the premium in the international scientific community. According to the University of California website (2016) this scholar has been granted a special laboratory by the state of California. Their status as contributors to the international and scientific communities does not transfer to leadership status in their women’s sections of their universities, as noted in recent searches of some university websites for women leaders. It seems that these women have not work in dean or chair positions.

In spite of these international achievements by Saudi females, however, women in higher education are still under-empowered; few have attained leadership positions. For instance, in the Saudi public education system, there are only two women with top-level leadership positions. One of these women is in K-12 education; she obtained a prestigious senior post as the Minister of Education in the Ministry of Education, a fitting position for a woman in Saudi culture. The other woman leader is the president of Princess Nora bint Abdulrahman University, the only exclusively all female university in Saudi Arabia. It is highly appropriate for a woman to have the position and authority to lead other women as decision-maker of an all-female university. Nonetheless, a woman leading
other women in the highest decision-making capacity is precisely what is missing in the women’s sections at other public higher education institutions. Regardless of women’s educational attainment and growth to date, females continue to lack representation in higher education leadership positions (AlMunajjed, 2009).

A commonly observed attribute that has been observed surrounding Saudi universities is this lack of empowerment of women leaders; this necessitates the development of appropriate solutions today in the wake of Saudi education reforms and the new Saudi Vision for the future of women. When women are in leadership positions in the women’s sections of universities, they are not the decision-makers. Due to the customs and traditions of Saudi society (AlMunajjed, 2010), the education and the work of Saudi women at Saudi public universities is done traditionally in areas detached from the men, with women being on a completely separate area of the campus from men; yet their sections are still reporting to the men’s sections. It is essential to implement new leadership practices without disturbing the customs and traditions of Saudi society. Women can lead women and still be completely separate from the men. Thus, by increasing the status of women leaders to have that full decision-making power over the women being educated in the women’s sections, these leaders can demonstrate their self-confidence and their abilities to make decisions, just as women lead women at Princess Nora University. Giving women the independence to manage their own sections allows these women to hold the same caliber position as men, most especially in all senior positions: president, dean, and chair.

The reality is that—outside of the two exceptions noted above—AlRuwais (2014) indicates that no women are serving, nor have they yet served, in senior level positions of
the whole university anywhere in Saudi Arabia. This remains true even if a woman possesses more skill or experience than a male colleague, such as the achievements of women in science, also as earlier discussed. For instance, women have generally been suppressed from holding not only the position of president, but also the position of dean and department chair. Despite support of women in leadership roles in other areas, there has been no specific attention for women’s leadership in higher education.

Furthermore, observation of the segregation of education does not mean that women cannot lead their own sections. If the decisions and other aspects of employment of women leaders are managed by men from the men's division of these universities, without strong input from the women's sections, then women will not have the empowerment King Abdullah envisioned, nor meet the standards of the Saudi Vision 2030 regarding women’s rights to be involved in and to have a crucial role in Saudi society in both the workforce and in the field of higher education.

**Administrative Empowerment**

Despite continuing advances by women in the workforce globally in recent years, there are still changes that must be made to overcome the exclusion and biases in the system. Due to women playing increasingly significant roles in higher education in areas of leadership and administration, it is essential to understand the history and concepts of administrative empowerment. According to Steward (2009), the ability to understand higher education administrators, in addition to the ways in which they operate, is vital for understanding the causes of failure or success of higher education. This section will focus on administrative empowerment in higher education by focusing on the historical and developmental aspects of administrative empowerment: the concepts, the importance, and
the benefits of administrative empowerment for academic female leaders and higher education institutions. Additionally, administrative empowerment models, theories, dimensions, requirements, and barriers will be provided.

Empowering individuals to do their work in a practical environment that allows them to feel confident and secure gives them the opportunity to work freely and independently; it is one of the important strategies to reach a shared vision. Indeed, this requires the reframing of the system of universities to enable the application of women's empowerment strategy (Shaalan & Kaki, 2013).

The History and Development of Administrative Empowerment in Higher Education

The concept of empowerment began to emerge in the 1980s, and it became increasingly popular in higher education in the 1990s (Abu-Nasr, 2007). Within a decade, the idea of employing women in higher education was ultimately accepted by male counterparts. This was due to the need for more educated women as well as the increased lobbying for the rights of women in all sectors of society (Tiao, 2006). As Badah (2010) explains, administrative empowerment since that time has been implemented to ensure the success of educational institutions. The American Association of University Professors (AAUP), the leading association of faculty in the US, noted in 2006 that even though women faculty members’ achievements in higher education have enormously increased, empowering women in higher education is still incomplete. Women are underrepresented in senior administrative areas in research-intensive and prestigious institutions. Male academic leaders in general still practice the exclusion of women in
senior department and administrative positions. The result, along with the limited number of higher education positions, prevents women from being represented equally.

Empowerment of women in higher education is an issue facing all women leaders in societies around the globe to some lesser or greater degree, as well as in Saudi Arabia. Regarding their presence as administrative professionals, Hale (2009) states that women continue to be resigned to positions of lower status than their male colleagues. This occurs despite the movement to increase the number of women in administrative positions. Regardless of the effort, females have been left out of the upper echelon of the educational system (Miles, 2012; Britton, 2013). Simply put, women have continued to increase their role and influence in higher education, yet full empowerment has not transpired.

**The Concept of Administrative Empowerment**

Any woman who has had a conversation about the workplace with another woman understands the essence of administrative empowerment; women today still know the feeling of being unable to move from a position of relative powerlessness to a position of high level decision-making. Men, to be fair, also may know this. The difference is they have understood administrative empowerment only from the perspective that they are cognizant of their own opportunity to be in that position. If they are not empowered themselves, they comprehend they are merely not there yet, or have chosen not to be there. The concept of administrative empowerment is understood at its core and simplest definition as the progression of moving from a weak position to a higher position of executing power (AL-Rousan, 2014; AL Ajlouni, 2013). In whatever refinements to the basic definition scholars make, they vary broadly; some consider the
full range of complexities of the issue of administrative empowerment, while others view it from a female perspective or solely as it relates within a particular field.

Overall, however, researchers generally divide the concept of administrative empowerment into two types: structural empowerment and psychological empowerment. Structural empowerment is described as the access to organizational structures within the work environment by means of lines of communication, resources, support, and information, all of which provide employees with opportunities to share in the decision-making processes as well as helping in resource control and job growth (Kanter, 1977; Laschinger, Shamian & Thomson, 2001a; O’Brien, 2010). Refinements of the definition of administrative empowerment from some of these same researchers show they are focused on the organizational practices, such as delegation of authority, training, and giving powers (Kanter, 1977; Laschinger, Shamian & Thomson, 2001b).

On the other hand, psychological empowerment is defined as the process of improving the feelings of self-efficacy within an organization’s members via ascertaining the conditions that result in either powerlessness or the elimination of that state (Ghani, Hussin, & Jusoff, 2009). Psychological empowerment emphasizes enhanced task motivation, being expressed through the four dimensions: meaning, competence, self-determination and impact (Thomas & Velthouse, 1990; Spreitzer, 1995; Wallace et al., 2011). These will be the main focus of the current study. An example of these dimensions is noted by researchers as a situation where there is clear focus on the employee’s sense of self-efficiency and the ability to influence their employment within the organization (Thomas & Velthouse, 1990; Spreitzer, 1995).
Empowerment as defined by Taani (2011, p. 205) considers both the structural and psychological aspects simultaneously and it:

Is an organizational strategy, and a new skill designed to give workers the authorities, responsibilities, and the freedom to perform the work in their own way without the direct intervention of the administration, while providing all the resources, and appropriate working environment for rehabilitation professionally and behaviorally to perform the work with full confidence in them (AL-Magableh & Otoum, 2014).

When higher education is the field of study for empowerment, researchers differ on whether structural or psychological is more important to how empowerment is defined, and some scholars argue that both aspects are combined for a most thorough understanding of the concept. Empowerment of academic female leaders means giving them the power to think, the chance to act freely, a sense of self-confidence, ability to believe in their capability to make required changes as equal to male leaders in higher education (Gholipour, Rahimian, Mirzamani, & Zehtabi, 2010). Nonetheless, empowerment of women does not mean placing women against men; instead, it means giving each one of them the equal opportunity to perform their work without dominating one over the other (Harish, 2012).

It can be concluded that the consensus among researchers is that administrative empowerment is an organizational strategy for responsibility and job growth. However, the most appropriate definition of empowerment for this study is the one provided by psychological empowerment. Saudi women leaders in higher education face challenges related to powerlessness and feelings of a lack of self-efficacy with male domination of their academic administration of their women’s sections. When self-efficacy is practiced, they can have an impact on the organization itself. For purposes of this study,
empowerment at the individual level is a critical first step in changing a power structure that is defined by cultural dictates. “Psychological empowerment may serve as a mechanism through which structural empowerment influences work place outcomes such as organizational commitment among academics in the research universities” (Ahadi & Suandi, 2014, p. 46).

**Theories in Administrative Empowerment**

Much current literature and numerous theories analyze the factors affecting women’s administrative empowerment in society. Some of these theories include the socioeconomic development, human development, equity, and feminist theories, each of which provides significant details on gender equality and women’s empowerment. Such theories seek to impart scholarly and literal explanations regarding the impacts of the rising gender equality and women’s empowerment in the society (Paola & Taylor, 2014). The following will provide discussion and analysis of these theories and their importance to the study of women’s administrative empowerment in higher education.

**Equity Theory**

John Rawls, who is known as a theory of justice theorist, argues that justice and equality between peers can have an impact on their behavior. He suggests they are interested in the establishment of equality among the other colleagues as they compare between themselves (Rawls, 1971). Equity theory explores the relationships between humans and assumes that people will see the unfairness in some cases and that the experience of inequality certainly leads to various forms of discomfort, which makes a person respond in ways that trying to place the equity (Pritchard, 1969). The implications of justice theories are powerful for this study since women in Saudi higher education may
compare themselves to male counterparts when considering their degrees and experience. Certainly they want the equality of being the decision-makers in the women’s section of their universities, yet are not empowered to do so.

This theory of Rawls is based on a fundamental assumption that people have a high motivation to achieve a balance between their effort and contribution and the resulting revenue they can realize. The essence of equity theory is that as individuals in the organizations compare their efforts and their returns, on the one hand, with, on the other hand, the efforts of other workers in similar circumstances and the returns of those workers for that effort, they make judgments about how much effort for how much return is fair. If someone understands another individual is working in an unequal way and is convinced that this was unfair compared to him/herself, it will produce tension within the organization; it pays to reduce the effort and straighten the inequality (Rawls, 1971).

Rawls’ Equity Theory also posits that one’s race impacts the level of discomfort leading to the perceived inequities experienced by workers. The findings demonstrate that a person’s ethical and cultural identities affect their perception on relational equality. Most importantly, equity theory recognizes the value of the recent developments in women’s societal role (Hunter, Jason & Keys, 2013). Despite all the cultural and racial challenges globally, women are taking on important roles in society. This includes women making financial contribution to their families. There is also the division of labor for housework among the couples who support the idea that gender equality leads to equality in the society (Morgan, Rowlinson, Fellows, & Liu, 2015). Therefore, the study of equity theory is important in understanding any recent female leaders’ empowerment
in higher education and how their treatment in their institutions affects how they view themselves in relation to the equity they have with their male counterparts.

**The Human Development Perspective**

Part of the larger human resource theory, the human development perspective is one of the newer theories emphasizing the need to obtain cultural progression from economic development, leading to human growth and development as well as an extensive world focus, as shown by the values of individual choice and the societal autonomy of women. The objective of this analysis is to develop emancipative values for the society, which would lead to the increased empowerment of women in the society (Muhammad, Shaheen, Naqvi, & Zehra, 2012). According to this theory, the human development concept collaborates with the social modernization process of advancing the emancipative values that are based on penetrating the existing barriers about women in society, such as the negative stereotypes in general and doubt about the ability of women to handle leadership. The theory focuses on changes in current societies, especially in the matter of developing a beneficial environment for women’s empowerment. Thus, the human development perspective creates a strong association between cultural modernity and the value of enhanced equality between genders.

For instance, according to Van Wart (2013), human resources are important to development and tend to correlate with economic development and growth. However, the effect on economic development remains indirect. Lorinkova, Pearsall, and Sims (2013) discovered that the cultural modernity perspective has a significant impact on women. The theory assesses the attitudes present in developing an accurate understanding of gender equality as the primary indicator predicting the contribution of women in
leadership positions (Paola & Taylor, 2014). They state that “modernization occurs in
different forms” (p. 97). In terms of women’s development, the research conclusions
indicate that gender equality is an important factor in enhancing development and values.
The measurements of economic development truly relate to educational empowerment of
women. Human development theory is a good strategy to use with academic female
leaders in higher education because it will improve their level of performance
effectiveness in leadership positions by training them intensively to familiarize them with
the rules, principles and theories in a particular area of their specialized field of
management.

Feminist Theory

With some similarities to other theories, above, the next theory was postulated to
understand the nature of inequality in society. Some of the major items examined under
the feminist theory include stereotyping, oppression, and discrimination of women.
Feminist theory was developed in 1794 by Mary Wollstonecraft, who was fighting for
women’s right to vote in England. In her publications, she compared the limited rights of
women to those of their male counterparts. Van Wart (2013) stated that in the society,
women were perceived low status comparing to men at that time. Feminist theory
adamantly upholds the belief that women can perform any tasks that men can perform.

One central aspect to the feminist theory was the arrest of Susan Anthony, as it
formed the arguments addressing why some aspects of the United States Constitution
seemed to be male centered. Anthony brought up the question about why women should
be punished by the constitution when they were not even protected by it. She asked why
women ought to adhere to such laws which neither specified nor defended them (Zhang
& Bartol, 2015). Following her arrest, feminist theory has taught that women should be allowed to undertake any position in society including those of leadership. Recently, the Feminist Theory has developed significantly in large part because of its success in creating positive perceptions of and new ideologies about women (Paola & Taylor, 2014). It casts women as a source of originality and leadership, with the capability of developing current society.

In summary, the human development perspective is significant in influencing women’s empowerment and development in the society. The human development perspective is a recent theoretical perspective that has emphasized the need to incorporate women’s empowerment into the current modern processes to enhance the emancipative values. Both the equity and feminist theories offer relevant suggestions and ideologies towards the empowerment of women in the higher education related to treatment based on their experience and leadership capabilities. Therefore, these theories are crucial in understanding the factors limiting women’s empowerment in administrative roles including higher education field and taking cultural factors into consideration.

**Administrative Empowerment Models**

To achieve women’s empowerment, higher education institutions ought to examine their circumstances and the internal and external environments. The participation of women in assuming leadership roles in higher education without lowering standards can be enhanced through numerous models of empowerment which have been developed in this context (Christman & McClellan, 2008; Madsen, 2006). The following will provide discussion and analysis of these models and their significance to apply in the study of women’s administrative empowerment in higher education.
The Conger and Kanungo Model (1988)

Conger and Kanungo (1988) contributed a significant transition in the empowerment field through transforming the focus from management practices to examining the empowerment from the psychological perspective (Spreitzer, 1995). The Conger and Kanungo (1988) model defines empowerment as the method in which feelings of self-efficacy are improved among organizational members by classifying those circumstances that lead to powerlessness. The model contains five stages, with the first stage determining the subjective factors that cause the feeling of loss of confidence among employees. The second stage involves the use of current management techniques such as empowerment in order to remove the factors that cause the feeling of helplessness among employees. The third stage includes providing sufficient information in order to build the self-efficacy for employees. In the fourth stage, the results of empowerment strategy starts to show in employees, while in stage five, the change in behavior begins to emerge clearly through the initiative of subordinates in the achievement of goals.

Therefore, Conger and Kanungo’s (1988) model can be applied to empower academic female leaders through modifying organizational factors as well as a support system for women to grow confidence in a way that can empower them. Nevertheless, Conger and Kanungo (1988) have asserted that “the needs to empower subordinates become critical when subordinates feel powerless,” (p. 474), which underscores the importance of the continuity of empowerment rather than waiting until the employees feel powerless to apply this model of psychological empowerment.

Empowering female leaders thus has to be aimed towards cultivating leaders who have charismatic personalities and behaviors to address and bolster the confidence of
subordinates. Female leaders need to be taught how to inspire subordinates in addition to minimizing the fear, anxiety and stress that act as hindrances to personal efficacy (Srivastava, Bartol, & Locke, 2006). In spite of such a realization, this model may lead to a risk of organizational performance problems due to the frequent correlation between charisma and dysfunctional behavior. The benefits of the model may also be voided by the egotistical nature of charismatic leaders, occasioning conflicting with the outcomes of empowerment for female leaders (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006).

**Thomas and Velthouse Model (1990)**

Thomas and Velthouse (1990) added to the empowerment researches through the distinction between management practices and psychological empowerment (Spreitzer, 1995). Another definition is provided by Thomas and Velthouse (1990) when they describe psychological empowerment as the increased intrinsic task motivation manifested in the four cognitions reflecting an individual’s orientation to their work. They expounded on the model by Conger and Kanungo and created a cognitive model focusing on internal factors. These include the surrounding circumstances of the individual, which affect the individual's motivation, satisfaction, and, thus, their productivity. They established that psychological empowerment plays a significant role in leadership, follower behavior, and the innovative capacity of individuals. The psychological empowerment originates in a leader’s or employee’s perception of having a say in the following: initiating and regulating actions; being able to impact their environment; performing the job well; and being valued by the organization (Pieterse, Knippenberg, Michae'la, & Dan, 2010).
Therefore, female leaders have to be provided a platform where they feel that they have freedom to perform whatever action they need. This platform includes eliminating the hegemonic gender stereotype stating that female leaders need monitoring or that they are not as talented as their male counterparts. Because psychological empowerment has many precursors such as organization and peers, empowering females for leadership positions has to be founded on different means (Pieterse, Knippenberg, Michae'la, & Dan, 2010).

Thomas and Velthouse suggest that psychological empowerment is closely related to intrinsic motivation and fulfilment, something that many women lack and which causes them to disqualify themselves from leadership roles (Zhang & Bartol, 2010). Yet, by possessing psychological empowerment, women leaders will be encouraged to forge ahead in their leadership journey, to acquire confidence in their personal leadership abilities, and to be motivated to assume additional levels of leadership (Lafreniere & Longman, 2008). They will also be able to affect their work environment via showing initiative, acting independently, and facilitating proactive behavior.

However, this theory neglected the factors within the organization that are external to the individual and which perform a significant function in empowering employees, for example rewards, recognition, and shared leadership. External factors play an essential role to empower female leaders in higher education along with their individual roles.

**Dennis C. Kinlaw Model (1995)**

Another empowerment model is that of Dennis C. Kinlaw (1995) whose model improves the empowerment of organizational human resources through the process of
group coaching. Kinlaw states that leaders increase their confidence in their leadership role through personal and contextual feedback given by other leaders. For example, female leaders in academia should be empowered through participation of forums in which they share their experiences in goal-oriented group coaching (Crawford & Smith, 2005).

In modern workplaces, group coaching and mentoring have been implemented by organizations in promoting human resources and encouraging organizational commitment in leaders (Moradi & Tohidy, 2011). Kinlaw conjectures that the primary task is to enable employees to increase their knowledge, skills, experience, and commitment. This likewise applies to managers working together in the recommended mentoring sessions. Group coaching and mentoring will facilitate female leaders in higher education to develop unanimity regarding goals and values, the level of influence, abilities that will assure success, and appreciation for the contributions shared by others (Afshari, Hoveyda, & Eshaghian, 2015). By joining both current and future female leaders in these target-oriented group coaching processes, they will have a profoundly positive effect on the identity development of these leaders as well as instill the four facets of commitment. However, the model is not accurate when it incorporates other influencing factors. For instance, there are many qualified women leaders in higher education but there are numerous factors away from their control, such as organizational factors which make them feel powerless.

**The Spreitzer Model (1995)**

In addition to the previous models is that of Spreitzer (1995), a model that uses employees' perspective on empowerment through the examination of their psychological
experience of empowerment Spreitzer (1995). Spreitzer's research focuses on the motivational effects of charismatic leadership, describing empowerment as having two components: behavioral and psychological. She postulates that psychological empowerment has a profound effect on a manager’s cognition and motivation, which in turn impacts managerial performance. This psychological empowerment model is based on the concept of self-esteem and locus of control and personal qualities that precede empowerment as they affect the sense of the individuals to themselves in the work environment. In her model Spreitzer (1995) emphasizes two personal qualities that cannot be managed entirely by the individual without the external influences at hand of information and rewards. She pointed out that individuals are enabled when the information is provided to them on time. Individuals are also empowered when personal contributions toward the success of the organization are recognized with rewards. This is a realistic model since it considers both internal and external factors that empower employees.

According to Spreitzer, empowerment can lead to perceived high-performance administrative practices, leadership, socio-political support, and work characteristics which come from its antecedent constructs (Howell & Shamir, 2005). Spreitzer (1995) describes her psychological empowerment model as the process of increasing the employees' sense of self-efficacy through four dimensions: purposeful work that appeals to and motivates the individual to value and accomplish their work (meaning); self-confidence of the individual and his/her belief in the abilities to carry out the work (competence); freedom to organize and perform work (self-determination); and belief
that he/she can have an effect on the organization’s mission (impact). These categories of psychological empowerment will provide the main focus of the current study.

To empower female leaders in academia, therefore, these antecedent constructs must be addressed. These are essential to ensuring the positive self-evaluation of female leaders, resulting in a broad range of leader outcomes that include job satisfaction, organizational commitment, and task and contextual performance. Spreitzer (1995) further suggests that effects such as stronger self-leadership, collective identity, and group cohesiveness build the consequential charisma. Moreover, the motivational and influential effects of charismatic leadership initiate and encourage followers’ need for cohesion, making charismatic leaders effectual in positively affecting the organization. In order for female leaders to succeed in a male-dominated workplace, this charismatic leadership style is critical in assuring that they can properly motivate followers and, therefore, should be instilled through targeting and reflecting on the successes and failures of the antecedent outcomes.

Though the gender disparity is evident in university administrations, it can be overcome through the utilization of administrative empowerment models. These models can be used to assist women to achieve additional proficiency and add to the necessary skills required to be effective leaders. Such models include the Conger and Kanungo model, which focuses on the improvement of feelings of capability among leaders. The model’s objective is to inculcate the four facets of empowerment that turns standard leaders into charismatic leaders. The second model, by Thomas and Velthouse, expounds on the Conger and Kanungo’s model and ascertains that psychological empowerment plays a significant role in leadership. Therefore, a platform should be provided whereby
the precursors to psychological empowerment are addressed. Thomas and Velthouse theorize that by so doing, women will no longer shun leadership roles. Denis Kinlaw postulates that group coaching will empower leaders and assist them in developing greater confidence in their leadership roles. Finally, Spreitzer investigates the motivational effects of charismatic leadership and the bearing that psychological empowerment has on a leader’s cognition and motivation. All these models can be used concurrently to empower female leaders in academia.

However, unlike other models for administrative empowerment, Spreitzer’s model addresses psychological empowerment in a multi-faceted and more comprehensive manner than other models researched; at the same time, Spreitzer’s model also acknowledges the undeniable organizational factors that are beyond the control of the individual: information and rewards. This latter concept is particularly important to Saudi women in academia since these factors are controlled by men, preventing their ability to move toward empowerment.

In particular, while the five stages of empowerment of Conger and Kanungo (1988) model allow for empowerment in the individual to develop in a linear fashion, Spreitzer’s model accommodates growth of the individual from various dimensions simultaneously. Spreitzer’s model recognizes the individual’s past as a critical component to empowerment, whereas Conger and Kanungo’s model relies on the organization’s cause of the powerlessness to initiate empowerment in the individual and requires the organization’s responsibility and effort to remove the barriers to further the empowerment, either of which might not occur or be overcome. Furthermore, using Spreitzer’s model does not run the risk of stalling the process of the evolving
psychological empowerment because her model allows for self-reflection, new creativity, and formative change and growth as necessary. For purposes of this study, Spreitzer’s model provides freedom to move toward the future and not be constrained by the past, an important mindset when it comes to shifting powerlessness toward empowerment surrounding the age-old issues of gender inequality. In this way, Spreitzer’s model together utilizes the past, present, and what is possible forward. Here, the individual’s past becomes an asset, as opposed to Conger and Kanungo’s model where the organization’s past may become a liability for the individual to achieve empowerment, or even feel movement or growth through a process at all. For these and other reasons, Spreitzer’s model has important implications as the most ideal model in the field to support the study of female leaders in higher education—a situation where change is imminent, but could take longer than desired or anticipated.

**Dimensions of Psychological Empowerment**

Empowerment underscores the intrinsic task motivation that is enhanced through a collection of four cognitions. Psychological empowerment is divided into the four dimensions of meaning, competence, self-determination, and impact as defined by (Spreitzer, 1995).

**Meaning**

In the context of empowerment, meaning is an indication of the level at which a person cares about and believes in the purpose and goals of the tasks (Rawat, 2011). It emphasizes the value of a purpose or goal with regard to the person’s own ideals and standards, and is a reflection of the inherent interests of the task itself. According to Wang and Lee (2009), meaning involves a fit between the requirements relevant to a
work role and the individual’s beliefs and values. Because of this, the correspondence between the work role expectations and one’s personal values supports the belief that work is, essentially, an end in itself.

**Competence**

In addition to meaning, a second task of motivation is competence. Competence is the feeling of an individual who has the capacity to undertake a task appropriate to his or her skills. Stander and Rothman (2010) stated that feeling confident and competent with regard to valued goals is associated with enhanced well-being and intrinsic motivation, for with these attributes, engaged employees realize that they are capable of dealing proficiently with the demands of their jobs.

**Self-Determination**

Thirdly, self-determination underscores the degree to which a person feels the causal responsibility to work related tasks, focusing on having a choice in either the initiation or the regulation of actions. It may also be explained as the degree by which workers can have control over their work or have the liberty to determine how they can accomplish their responsibilities (Stander & Rothman, 2010). It is recognized that workers with self-determination have stronger autonomy since they feel trusted to make autonomous decisions and also take on assignments without any pressure from the leadership, which gives rise to increased responsibility and accountability.

**Impact**

Lastly, impact revolves around the experience of having some influence on the operating, administrative, and strategic outcomes in the workplace, knowing that one can make a difference (Rawaat, 2011). It may be viewed as the degree by which individual
employees feel that they have essential influence on their immediate co-workers, their work environment, and even the organization in its entirety. Psychologically empowered individuals are convinced that they have the ability to make a difference and that their tasks can make a true impact on other people, which leads to valuable contributions. Scholars have noted that psychological empowerment centers on an intrapersonal sense of empowerment that originates from the cognitive processes in an individual. Individuals’ perceptions are shaped based on their interpretations of the climate in the organization (O’Brien, 2010).

On the other hand, the basic antecedents of structural empowerment are information, opportunity, support, and resources (Bailey, 2009). As research has not been able to offer any correspondence between structural and psychological empowerment, scholars have held the belief that psychological empowerment is the most logical result of structural empowerment, given that employees only comply with empowerment initiatives in cases where their motivational needs have already been met (Bailey, 2009).

**Requirements for the Administrative Empowerment**

Presently, women in some areas of the world are encouraged to take on leadership positions in higher education. According to Eagly and Carli (2005), women in studies in the United States have been better administrators in all levels. This occurs because when the women are encouraged to exercise an effective style, they are capable of rising and become better leaders in higher learning than are the men, providing the women are encouraged to exercise an effective style. According to Johnson et al., history has discouraged women from participating in academic leadership positions. However, through the National Science Foundation (NSF) advance support in the United States,
women who are encouraged to surmount the predominant challenges in masculine departments such as engineering truly can climb up the academic leadership ladder. Strategies which have been established by the fields of science, technology, engineering and math (STEM-dominant) leadership include training on how to surmount the prevailing gender and other empowerment obstacles and encouragement of women to assume leadership at various levels of their vocations. Departments in other academic places ought to consider issues of related matters in order to better address them. Other strategies for administrative empowerment include pipeline mentoring and the management of the university climate (Johnson et al., 2009).

Addressing this element of encouragement, Eagly and Carl (2005) assert that one of the ways of motivating women to assume leadership roles in higher education is via others’ encouragement to develop in their career and leadership status. Ypsilanti (2015) asserts that in the field of academic medicine strong women leaders are in high demand. However, women are not progressing to the expected roles in this field. This hindrance can be overcome only if women are expected to obtain leadership skills, gain knowledge about the academic medicine field, and enjoy success in a medical career. Other strategies utilized by women wishing to advance in the academic leadership consist of networking, application of keynotes, and participation in skill building conferences. According to Zhu, Sosik, Riggio, and Yang (2012), women are also able to advance in their transformational leadership skills by applying high standards of morality and ethical conduct. This will enable followers to grow in skills of creativity and innovation. Furthermore, psychological empowerment and organizational identification are crucial requirements for administrative empowerment (Zhu et al., 2012). According to
Belevander (2014), the requirement to achieve women administrative empowerment is comprised of educating the academic professionals without gender bias and supporting women in the leadership positions by expressing appreciation and nurture. Organizations ought to be supported in this, as it involves overcoming societal obstacles against the progression of women into academic leadership positions. In addition, platforms should be created for scholars to communicate their experiences for improved leadership practices.

**Barriers and Obstacles to Administrative Empowerment of Women in Higher Education**

Women face obstacles and barriers to obtaining administrative positions in academic institutions. Some of them are internal, whereas others are external. Internal barriers originate from the women themselves, including choice, aspirations, and mentor relationships. Conversely, external barriers are derived from outside forces over which women have no control. These are comprised of bias and discrimination of all types, family obligations, social expectation and stereotyping, and the tenure clock.

A first barrier involves desire and the aspirations of the women themselves. About 55 percent of women in academics lack the drive and motivation to reach the level of administrator (Elmuti, Jia & Davis 2009). Many of them avoid such top positions because of the necessity to achieve once there. Thus, they wait for a long time, simply researching the job description without ever applying (Lewis, 2015). If, however, women were more empowered, their internal motivation would generate new ideas and strategies to solve problems based on the resources available to them, and their belief in their own authority would drive the desire to make decisions, as the outcomes would be without reprisal.
Secondly, some institutions discriminate against women in the process of appointing senior administrative staff. They claim that women are too dependent and lack the task-orientation of men. Also, women sometimes receive less support for occupying the positions (Growe, 2015). Overcoming the barrier of hiring and promoting of women in higher education because of assumptions about their behavior is not fair. The environment of higher education is a perfect place for women to be honored regarding both their feelings and their status since the milieu of higher education attracts people who believe in academia and its ideals of both teaching and seeking knowledge. With a collection of people with higher education degrees, it should be easier for everyone’s ideas to be shared and used to solve problems that enrich the vision and mission of the university as a whole. Women’s contributions can be wasted when they are not able to participate in what, ideally, is a most intellectually stimulating and idea-rich environment with the potential to spark the best thinking of all the great minds that exist there. It is an environment where women leaders with the right to contribute their talent will be seen as talented and valued, rather than limited or incapable.

Societal expectation is another barrier for women leaders and a reason women’s value and contributions as leaders in higher education are limited. Currently, society simply extends all its biases against women and anticipates that more men will take up senior academic positions than will women. This has resulted in the stereotype against women as senior academic staff (Jussim, Eccles & Madon, 2008, Dianes, 2009). Besides the traditional biological expectation that senior level academic women would leave to create or care for families, there is a tenure clock with external settings for women in leadership positions. As a consequence of biases and barriers, this tenure clock applies to
women academic leaders who attain senior level opportunities and too often are given only short tenures, clocking in and out, of leadership positions until a suitable male can be found. Due to these short, temporary tenures by institutions, women rarely achieve or are granted permanent senior academic jobs, such as presidential positions. Thus, few women have the chance to work long enough in a single institution Elmuti, Jia, & Davis (2009) to establish a path of leadership that would motivate them toward empowerment nor, as noted above is a contributing factor in senior leadership empowerment, that other women could emulate and feel confident will be there for them, too.

These external biases against women diminish the contributions educated women can make as leaders, which is further complicated by a lack of mentor relationships from other women—a two-pronged void. Women are not hired in leadership positions and do not have adequate opportunities to gain the experience, and, therefore, are lack experience in leadership responsibilities to fully mentor other women. Furthermore, women are unwilling to seek out higher level leadership positions because they will be doing so without a collegial support system of other women; this situation, once more, points back to the internal barriers of desire and motivation. Most are unwilling to join others in climbing the ladder to the highest positions without experience. Furthermore, women who do have professional mentoring or see a clear path to obtaining leadership experience and jobs are jealous of other women in similar positions and, consequently, rarely mentor other women on similar paths as they are viewed more as competition rather than a source of support and are reticent to mentor them for this reason (Kiamba, 2008). The externally driven competition, rather than a collaborative effort of
empowerment from open mentorship is another imposing barrier to all women in higher education.

The continued integration of women in higher education is confronted with numerous external and internal obstacles (Trinidad & Normore, 2005). These barriers can be used to explain why there is an absence of women in university administration, with some female leaders even choosing to exclude themselves from leadership responsibilities (Tomàs, Lavie, del Mar Duran, & Guillamon, 2010). Moreover, these barriers, which include a preference for male values in the organizational culture, are a major deterrent to the success of female administrators. To overcome such barriers and to empower these women, administrative programs and empowerment efforts need to be implemented, proliferating the number of women being offered and accepting said administrative positions and, consequently, closing the gender gap. The four dimensions of psychological empowerment of meaning, competence, self-determination, and impact applied in this process of change will increase the level of a sense of work importance and self-confidence for women that they have the required skills to perform the work efficiently and effectively. The more psychological empowerment increases, the more production and creativity will ensue in the workplace.

**Administrative Creativity**

In the majority of cultures and social systems, the development of females has always occurred at a relatively slow pace. Yet, this is changing due to their remarkable creativity. Creativity is considered one of the most significant areas of higher education, particularly when it is connected to the leadership field. As a primary goal in education, creativity is revered and is currently being advocated by most administrators. Creativity
can lead to a successful society that encourages the expansion of knowledge and creativity in educational endeavors among female leaders (Tiao, 2006). However, it must be understood that administrative creativity is the culminating result of truly empowered leaders, and until female leaders are genuinely empowered, their creative influences are diminished and organizations are at risk of not benefiting from women materializing this critical contribution.

**Concept of Administrative Creativity**

The notion of creativity can be explained as the discovery or innovation of any new thing (such as a product, a literary invention, or an academic solution) that a society values (Harada, & Osman, 2015). Also, it can be defined as “the production of novel and useful ideas in any domain” (Amabile, 1996, p.1155). Some scholars define “new” as that natural creation or invention which results in a novelty. They state that by the value a society places on it, the “new” will be found advantageous and applicable (Harada, & Osman, 2015). The essence of creativity is to enhance individual cognitive aspects and one’s level of concept comprehension (Harada, & Osman, 2015). Administrative creativity refers to a series of group procedures leading to novel thoughts being created and acknowledged as meeting academic institutional objectives (Guth, & Wright, 2009). Fundamentally, the procedures of administrative creativity among women leaders in higher academic institutions are most accurately seen by four distinct and essential achievements (Bennett, 2014).

These achievements include the cohort and influence of knowledge, activities of compromise building, and conquering discrepancies when planning to succeed. Being leaders in higher education, these women are necessitated to initiate various activities and
proactively guide them to their ultimate achievement (Ruhl & Salzman, 2011). Since this is so involved, such a leader must embrace the challenges of these situations. Good leadership involves the challenges of implementing new policies, following new guidelines, and making certain inherent decisions through innovation (Bennett, 2014).

In essence, from an historical standpoint, the concept of administrative creativity has been the subject of serious debate among women in higher education. On the one hand, women’s acquisition of knowledge has been endangered by various encumbrances ranging from societal misconceptions to inadequate empowerment (Ruhl, & Salzman, 2011). However, presently more women are better positioned to make contributions in higher education leadership and academic abilities.

The History and Development of Administrative Creativity for Academic Female Leaders in Higher Education

In order to understand the position and role of women in higher education, one must also view it within the socio-economic status. Access to education in most societies was limited by a number of erroneous perceptions. Based on the cultural understanding of the role of women, the society restricted the type of education that women were allowed. As such, for millennia, females were fundamentally underrepresented in the higher education of society since it was conducted through the religious structure. From this historical standpoint, it is apparent that discrimination against women in leadership as well as their participation in higher education has been occasioned by fallacies of and baseless arguments maintained by the society (Egging, 2009). Owing to limited admittance for females, their creativity and levels of acquired intelligence were deeply
compromised and, until recently, the role and participation of women in higher education was reduced by a number of factors (Guth & Wright, 2009).

Being under obligation to stay at home and carry out domestic activities, the application of women’s cognitive abilities and creativities was limited to homelife. However, due in a large part to the burgeoning technological era, a 21st Century woman is able to be independent and proactive, able to progress towards the achievement of her supreme educational goals. Likewise, more women are currently participating in occupations of higher education leadership, even tripling the past numbers. As seen, however, the potential is there for women’s creativity to be used when they are given an opportunity to be committed and consistent towards the acquisition of knowledge and attainment of their ultimate objectives (Guth, & Wright, 2009).

Theories of Administrative Creativity

A number of theories have emerged to explain the notion of creativity in administration as well as in other aspects of life. The understanding of and insight into administrative creativity has been the subject of debate among various theorists whose hypotheses and arguments have yet to be fully validated (Hamilton, Gladdys, Barrett & Gangi, 2014). Comprehensive, intricate, and complex administrative creativity can adopt a variety of forms taken from various contexts in higher education and other positions of authority in the society. Perhaps the idea can be best demonstrated within a broad range of personal features and bases, although the source of such clarifications is hard to conceptualize. However, most of the theorists state their intention to elucidate administrative creativity (Marion, & Gonzales, 2013). Nonetheless, the following discussion aims at synthesizing the differing points of view held by current theories and
theorists with those from the past, remembering the provision that the comprehensive explanation of the concept is still in process.

These theories and theorists are largely centered on the cognitive aspects behind administrative creativity, the intrinsic characteristic of creative women and the social environment from which they seek freedom (Marion & Gonzales, 2013). There are three components of administrative creativity among women in higher education: creative cognition, motivation, and knowledge. Creative thinking (cognition) in this respect includes how these women deal with their problems, and it depends on the personality or the individual’s type of cognition (Marion & Gonzales, 2013). Knowledge refers to the significant understanding which women leaders in higher education offer their creative effort. Motivation, in contrast, entails an individual’s intrinsic passion and interest in a given task or academic occupation. In order to have administrative creativity, one must have the expertise (knowledge, technical, intellectual and procedural ability), creative discerning skills (a flexible and imaginative approach to educational problems), and the motivation (the intrinsic ability) to perform the necessary assignments (Amabile, 2012).

**Triarchic Theory**

The first expedient theory of administrative creativity was Sternberg’s Triarchic Theory (1985). It demonstrating that individuals possess the necessary logical thoughts of intellect and creativity, and they utilize these abilities to accurately self-evaluate and to analyze various situations. Implicit within Sternberg’s theory is the theory of creativity, which is relevant in practically all areas of leadership and management. It claims that three principal aspects of aptitude exist which define the concept of “administrative
creativity.” These aspects are described as analytical, creative, and practical. Sternberg’s theory thus refers to administrative creativity as the inherent ability to create ideas that are novel, high quality, and task-appropriate. This theory has been helpful in the effectual redefinition of problems as well as insightful reasoning (Sternberg, 1985).

Moreover, Sternberg stipulates that the acquisition of creative knowledge discriminates between relevant and irrelevant information and combines relevant aspects of information into an innovative and unique idea. Thus, requisites to administrative creativity are being analytical (judging one’s own ideas and evaluating their strengths and weaknesses) and practical (intellectual discernment of ideas). Based on this theory, it is evident that when women leaders are taught in a method which accentuates their fundamental abilities, they more effectively perform the assigned task than those leaders with analytical abilities only (Sternberg, 1985).

While Sternberg’s Triarchic Theory focuses on intuitive appeals with optimistic insights, regrettably, its basis is unproven data. For instance, Triarchic Theory defines creativity and intelligence as more than just “being book smart,” implying that even the academically challenged can attain success. Yet, he does not substantiate this claim.

**Psychoanalytical Theory**

Although various views have been emerging which support, review, and refute the concept of administrative creativity, the psychoanalytical theory of creativity proposed by Sigmund Freud opines that creativity is based on the kind of situation someone is in. He explains that as people move away from the dynamics of their settings, they become imaginative and develop the unconscious drive to overcome their
circumstances, stating that a feeling of ‘inferiority’ is a significant factor leading toward creativity (Freud, 1910).

Therefore, for instance, if Freud’s theory were applied to women leaders in higher education, they would be viewed as such “inferior beings” by society, and women would have a high likelihood of possessing increased reasoning abilities and creativity regarding their decisions. Freud described these characteristics as the “unsatisfied wishes that are behind the drive towards success,” explaining that these “fantasies” steadily become reality. The primary component of “administrative creativity” is the natural defense we cultivate against positive perceptions. As such, women being denigrated by the society may boost the development of creativity and positive thinking (Freud, 1910).

However, the main opposition to Freud’s creativity theory is its failure to consider two key areas. First, it lacks an ample scientific base, trying to prove points without clarifying the units used to measure human intelligence. Second, the theory largely ignores the fact that humans are natural and social creatures, and that environment plays a role in the development of individuals’ cognition and aptitude.

**Maslow’s Humanistic Theory of Creativity**

Under Maslow’s Humanistic Theory of Creativity, there exist these primary tenets: human beings are faced with a number of fundamental needs, and people are obligated to work hard to meet these needs. Following the attainment of the majority of these needs, humans attain the period known as self-actualization, in which they become very free to express their own ideas and be creative. This can be compared to women in higher education who, having acquired certain levels of comfort, are freer and more willing to make creative decisions (Maslow, 1943).
This theory argues against the idea that one’s setting is an important factor in creativity. It stresses the fact that the primary motivation of these women leaders in academia might be to compensate their supposed physical and rational disability by being creative and active. Since the theory is criticized based on its behavioral approach, and critics claim that it largely ignores humanity’s diverse nature, it is not as useful in this study since women leaders in academia are responding and behaving in relation to the external barriers in their institutional settings. By nature, their own feelings and awareness may not generate the desired creativity. Moreover, the theory contradicts many of the views of the school of psychoanalytical originality, and it argues that overcoming life trauma and stress by becoming creative is an inherent need (Maslow, 1943), which does not seem true for women leaders in academic institutions.

Each of the theories discussed above revolve around the relationship between individual cognitive abilities as well as the discrimination between what can be conceived as a profitable idea and what must be discarded. The theorists in their explanations focus on the procedures of cognitive creativity and of those that occur during creative inventions. Furthermore, all were geared toward individual personalities and one’s capability to grasp certain central ideas (Leithwood, Chapman, Corson, Hallinger & Hart, 2012). The process of administrative creativity involves becoming meticulously knowledgeable of the problems and every relevant issue (also referred to as saturation) as well as reflecting on viable solutions. Similarly, the most important thoughts behind the development of these theories include the following: developing and elucidating the new idea from a refined point of view and fully incorporating the new idea into the system.
Components of the Administrative Creativity for Academic Female Leaders in Higher Education

Administrative creativity has multiple conceptualizations, although overall, it is agreed as an idea that describes people in leadership or administration who produce useful and innovative ideas. Nonetheless, certain component of administrative creativity hold up when examining academic female leaders in higher education. Through innovation, organizations are able to successfully implement changes and, in this case, institutions of higher learning improve. Creativity can be realized at the individual level, but innovation is best observed at the organizational level. Individually, women have cognitive components that help them develop creativity, just as their male colleagues do. Such creativity is explicated in Treffinger’s creative learning model, which includes the five cognitive components vital for creativity to unfold: fluency, originality, flexibility, sensitivity, and risk-taking (Dunbar & Kinnersley, 2011).

**Fluency**

Fluency, which Treffinger calls “idea fluency,” describes the concept that an individual can amass a variety of different solutions, focusing on specific problems at particular times. It helps one to come up with diverse answers to specified information within a limited time, resulting in meaningful solutions. Regarding females’ ideas, the more they develop, the higher chances they have of getting practical solutions. Thus, they have additional opportunities that could assist them in avoiding their former habits. Fluency depends a great deal on an individual’s mental habits. By consciously applying such habits to themselves, females can develop and increase it (Carmeli Gelbard, & Reiter-Palmon, 2013).
**Originality**

Female leaders in higher education are also obligated to exercise originality. Originality is the capability of finding novel means to change current situations. It is also the ability to find new ways of modifying existing ideas based on upcoming conditions. That is, originality helps a leader to adapt something already in existence. Like fluency, originality is a creative attribute females can develop or simulate until they reach a level that meets the standards of a business or organizational operation (Sohmen, 2015). In order to achieve this, one has to practice the art of systematically asking questions. Unfortunately, originality is rare, so there is low probability of an individual having it (Dunbar & Kinnersley, 2011).

**Flexibility**

The third component to Treffinger’s model is flexibility. This means that women should have the capacity and willingness to utilize various approaches to whatever problems they face. Just as importantly, creative flexibility necessitates that an individual have the correct attitude (Sohmen, 2015). In other words, one should not be limited to a single approach to solving a problem because that one approach may not be the solution. Renn (2012) explains that it is generally feasible for an administrator to solve a problem by using a different angle, a solution that is referred to as “creative expectancy.” Ideally, the focus should always be on finding a solution, irrespective of the approach that is utilized. Thus, female leaders in higher education must have the ability to adapt to changing circumstances (Renn, 2012).
Sensitivity to Problems

Problem sensitivity is a fourth component required for leadership. It is an aspect that is demonstrated by a leader’s ability to understand as well as recognize any problem that exists. Using this ability, the leader can distinguish the origin of the problem, which could be any of the following: a misunderstanding, limited facts, or misconception (Jones, Harvey, & Lefoe, 2014).

Accepting the Risk

Finally, female leaders in higher education institutions must accept risks as they are encountered. Accepting risks leads to effective leadership. Accepting risks is based on knowing how to properly cope with fears (Campbell, 2015). However, the risk must be balanced, by being innovative and by gaining the knowledge to implement change. Those leaders who accept risks are the ones ready for change, which is a necessity in the ever-changing global environment (Renn, 2012).

Requirements of the Administrative Creativity for Academic Female Leaders in Higher Education

Having looked at the components of administrative creativity, one must next understand the requirements. Although administrative creativity in higher education is a relatively new topic, it is nonetheless a crucial one. It requires the administrative leaders to totally abandon their former routines of thinking and problem solving in order to reach the high level of innovation and creativity. The freedom to be thinking at this level will allow them to acquire knowledge in the fastest possible way, at the lowest costs, and by the easiest means available. According to Bielby, Posselt, Jaquette and Bastedo (2014), certain requirements exist to reach the level of administrative creativity: empowering
leaders; assisting them in learning leadership skills; attracting women into the available positions; ensuring equity for those in employment programs; and, in gaining academic credentials.

First, women need to be empowered, as it helps them become creative administrators in higher education institutions. It is necessary for these institutions to encourage females to take on leadership positions requiring creativity (Lovelace & Hunter, 2013). Women need to play the same role as their male counterparts and to be equally considered for positions in various occupations. As a prerequisite, females need to gain the self-assurance that they have the ability to make it in administrative positions (Dunbar & Kinnersley, 2011). This confidence can be acquired by younger women being connected with and looking up to women who are already successful in administrative positions. Since professional women who are interested in pursuing their careers need to be mentored (Bielby et al., 2014), women in higher education in mentor relationships gain confidence, which empowers them as well.

Such empowerment can assist women in overcoming a number of problems. For example, gender disparities have led to women being under-represented in institutions of higher learning (Bielby et al., 2014). There is also the need for a global initiative to support females and to assist them in networking. This will inspire them and help them attain the level of confidence necessary to become leaders (Dunbar & Kinnersley, 2011).

Transformational leadership relies on the leader’s influence on others, and is one type of viable leadership that can be used in higher education (Lovelace & Hunter, 2013). After using the transformational style of leadership, most female leaders succeed because the skill of this leadership is more interpersonal than task-oriented, as is the case among
males. It would be an attributing factor to women devoting themselves to uniquely shaping the policies of the higher education institution (Morris, 2010). It is important that each female leader comprehends what her leadership style is to ensure success in her career. To become transformational leaders, females must possess virtues, ethical values, and the ability to inspire others (Renn, 2012). Having attained these leadership abilities, women can use them toward acquiring experience with administrative creativity.

A third requirement to reach the level of administrative creativity involves a woman’s desire to be in a high position of leadership. Despite more females becoming qualified enough for administrative positions in higher education, the majority of women still have not obtained those positions from external barriers, such as stereotypes and biases, to their own lack of interest in them or unwillingness to apply. It is important for women to be interested and psychologically prepared to accept leading roles in higher education at administrative levels. Women who are empowered with opportunity and are supported in or by mentor relationship have confidence and motivation to seek leadership positions. They recognize they do not have to limit themselves to being exclusively family-oriented, and they should have the confidence to compete for positions against their male colleagues (Carvalho & Santiago, 2010).

Having gained interest in educational leadership, yet another requirement for women is receiving all the appropriate academic credentials. They must attain these to overcome the barrier preventing them from reaching the top of the administrative ladder. Women first need to enroll in university programs to increase their chances of becoming future administrators (Tamim, 2013). Although the trend has begun to change, women still remain underrepresented in these university programs, an unfortunate tendency that
needs to be remedied. This requirement corresponds to the process of enticing women to achieve their goals. In other words, by joining university programs that are pathways to senior leadership, women would realize that they are capable of achieving as much as their males counterparts (Bielby et al., 2014).

A legal way to increase women’s enrollment in administrative positions in higher education is by enforcing equity programs using affirmative-action initiatives. Equity programs in employment require systematic monitoring of who holds certain positions. By instating this, the areas of concern will become public and could be resolved, areas such as representative work-force, equal treatment, and fairness, (AL- Magableh & Otoum, 2014).

**Barriers and Obstacles of the Administrative Creativity for Academic Female Leaders in Higher Education**

Despite the fact that globally there is awareness of the importance of administrative creativity, women unfortunately continue to be underrepresented in administration leadership and, thus, do not have the opportunity to exercise and make their mark with their administrative creativity. This is due to remaining barriers that continue to prevent administrative creativity among women (Oliver & Ashley, 2012). They include lack of administrative empowerment, lack of an innovative character, and development of mental locks that prevent women from becoming a leader (Carvalho & Santiago, 2010).

First, administrative empowerment for women is still a new concept. It is an organizational strategy that is designed to put authority, freedom, and responsibility into the employees’ hands, giving them the right to perform their tasks in the way they see fit,
apart from a direct intervention of the organization’s administration (Oliver & Ashley, 2012). Yet, without administrative empowerment, administrative creativity is suppressed because the workers are denied the necessary resources and lack a working environment that supports them professionally. This deprivation prevents them from performing their duties with confidence (AL- Magableh & Otoum, 2014).

In addition, an innovative character is required for females to be creative administrators. According to Carvalho and Santiago (2010), the following are aspects of an innovative personality: having knowledge and appropriate social customs, strength of character, and the ability to interact and even oppose views of others. Innovative character requires a spirit of risk-taking and independence as well as tolerance, openness to ideas, and persistence. Clearly, lack of such traits would deter innovation.

Besides the above barriers, most females experience mental locks in the areas of perceptions, emotions, culture, environment, and intellect. Perceptual locks describe limitations regarding the ability to perceive a problem clearly. Emotional locks refer to one’s personal restriction of freedom, preventing one from considering and manipulating new ideas and opinions (Bolden & Petrov, 2014). Cultural locks are defined as cultural patterns, beliefs and taboos, such as the idea that only men can succeed in administrative positions (Tamim, 2013). Environmental locks includes outside other external barriers. For example, the organizational climate could be a bar creativity. Finally, intellectual locks occur on account of one’s conservatism or one’s unwillingness to attempt new approaches (Bolden & Petrov, 2014). For instance, there has been resistance to women participating in leadership roles because traditionally leadership has been considered a masculine role. Therefore, males as well as a minority of women generally dispute the
idea of change and are quick to disapprove of any new concept (Lafreniere & Longman, 2008).

Chapter II Summary

This chapter has reviewed a range of literature that demonstrates a strong relationship between psychological empowerment and administrative creativity, with empowerment having a strong impact on employees’ creativity. That means psychological empowerment is the first step or best strategy to be followed by a higher education institution to enrich the desirable effect of innovative leadership practices. Empowered women leaders exercising their creative talents can drive forward an enhanced value of higher education institutions when these organizations show willingness to fully utilize the full potential and capabilities of its women leaders. The review of the previous studies confirms the urgent need for the current research since there is no research in particular that has addressed women leaders’ psychological empowerment and its impact on their administrative creativity at Saudi public universities. Consequently, this study will gather and analyze the perspectives of both male and female leaders regarding the level of psychological empowerment and its impact on administrative creativity for academic female leaders. Through these perspectives, an impact on women leaders’ administrative creativity will be examined. Also, the result of this study will help academic male leaders at Saudi universities to understand the status of women leaders, to encourage them to make the required changes as well as to make policy changes that support both males and females to allow systems and women to change into empowered senior leaders. The following chapter discusses the research methods that will use to conduct this study.
CHAPTER III
METHODOLOGY

The literature review in chapter II identified key variables associated with creativity of leaders in variety organizations. In particular the variable of psychological empowerment has been previously explored as a predictor of administrative creativity behavior and the factors related to psychological empowerment and administrative creativity well-defined and identified in the literature. Chapter III explains the methodology and procedures undertaken to conduct this study. This chapter begins with a brief restating of the research focuses and research questions. The sections following this restatement will be a description of the research design used in this study, sample population, measuring instruments, procedural pilot study, data collection, and data analysis. This chapter also includes ethical considerations, and some delimitations and limitations of the study.

Restating the Research Focus and Research Questions

The purpose of this quantitative study was to examine the perceptions of male and female leaders’ influence on female psychological empowerment and its influence on their administrative creativity in both established and emerging universities in Saudi Arabia. These study findings will help higher education leaders appreciate how administrative creativity of academic female leaders is influenced by psychological empowerment. In addition, this study will help fill a void in the literature, especially in
environments that many researchers avoid, because studying women’s leadership empowerment and creativity deal with sensitive religious, cultural, political, etc., issues.

Specifically, the research is guided by the following questions:

At both established and emerging universities in Saudi Arabia:

1. What are both male and female leaders’ perceptions of women’s psychological empowerment?

2. What are their perceptions of the administrative creativity among women leaders?

3. How do perceptions of both psychological empowerment and administrative creativity differ between male and female leaders and between established and emerging universities?

4. What other demographic characteristics influence their perceptions of psychological empowerment and administrative creativity?

5. To what extent do leaders’ sense of psychological empowerment for women leaders influence their administrative creativity?

**Research Design**

A quantitative method was appropriate for examining the relationships between variables in order to answer questions through surveys (Creswell, 2014). In addition, a quantitative research design is utilized when collecting data involving any of the following: (a) descriptions, (b) attitudes, (c) values, (d) habits, (e) beliefs, and (f) perceptions (Creswell, 2013; Kerlinger & Lee, 2000; Fink & Kosecoff, 1998). Dillman (2000) and Fink and Kosecoff (1998) assured that surveys can be applied to obtain information needed directly from individuals. Further, a survey method can provide a
variety of information from one or more groups of people (McMillan & Schumacher, 2006; Leedy & Ormrod, 2005). Using this kind of research method, the researcher selects participants and administers a questionnaire in order to collect data. In the current study, the survey was administered to academic male and female leaders at six Saudi public universities.

**Population and Setting**

The survey was administered at three established public universities and three emerging public universities in Saudi Arabia. The three established universities are Umm Al-Qura University (UQU) in Makkah, King Saud University (KSU) in Riyadh, and King Abdulaziz University (KAU) in Jeddah. These universities were established in 1949, 1959, and 1967, respectively. In contrast, the emerging universities are Taif University (TU), University of Tabuk (UT), and Jazan University (JU), which were founded in 2004, 2006, and 2006, respectively. The participants were academic male and female leaders of these universities who lead or manage a college, department, or any academic unit, such as College Deans, Vice Deans, Department Chairs, and Vice Chairs. Leaders included those at the rank of lecturer, assistant professor, associate professor, or full professor. Leaders who are Presidents and Vice presidents in different sections were not part of the current study. Based on the most current statistics provided by the Saudi Ministry of Education (2016), there were approximately 1,223 male and female leaders who meet the participant sample criteria.

**Study Sample**

The study population consisted of all the academic male and female leaders at six public universities in Saudi Arabia with approximately 1,223 leaders. The stratified
random sampling method was utilized to determine the respondents for this study from each university, stratifying the sample by university type and gender (Table 1).

According to the table for determining sample size (Krejcie & Morgan, 1970), the appropriate sample size for the target population equals 297 individuals. In order to obtain this number of responses, 800 invitations were sent. This study received 377 responses, which is a 47.1 percent response rate. The response rate was obtained from the initial distribution.

Table 1

<table>
<thead>
<tr>
<th>University</th>
<th>Study Population</th>
<th></th>
<th></th>
<th>Sample Size</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Established Universities</td>
<td>597</td>
<td>264</td>
<td>861</td>
<td>145</td>
<td>64</td>
<td>209</td>
</tr>
<tr>
<td>Emerging Universities</td>
<td>266</td>
<td>96</td>
<td>362</td>
<td>65</td>
<td>23</td>
<td>88</td>
</tr>
<tr>
<td>Total</td>
<td>863</td>
<td>360</td>
<td>1223</td>
<td>210</td>
<td>87</td>
<td>297</td>
</tr>
</tbody>
</table>

**Instrumentation**

Two existing survey instruments were utilized to answer this study’s research questions. The purpose of the first instrument adapted from Spreitzer (1995) was to collect data to provide an accurate perspective of university leaders’ perceptions regarding the level of psychological empowerment for academic women leaders at Saudi universities. The purpose of the second adapted instrument from Zhou and George (2001) was to gather data to provide accurate perceptions of the level of administrative creativity for academic women leaders. Thus, Spreitzer’s (1995) and Zhou and George’s (2001) surveys were adapted for this study because they so closely match the purpose of this study; furthermore, they have been tested by many researchers in a variety environments.
A number of steps were taken to modify these instruments to be consistent with the current study goals and its environment. First of all, since the male leaders took part in these surveys, the questionnaires were designed in two versions, one version for males and another for females. The first step was to translate the instruments into the Arabic language and slightly modify the wording to accurately reflect a higher education environment. For example, the original item #1 in Spreitzer’s survey instrument is, “The work I do is very important to me,” and it remained the same for female leaders’ version. However, for the male leaders whose perceptions we studied, the language was modified to, "The work they do is very important to them," which reflects the appropriate formulation for the male respondents (Appendix A) to respond about female leaders. In addition, a new section was added in order to identify independent variables that may or may not affect the levels of psychological empowerment and the administrative creativity in female leaders. This section included inquiries about university type, occupation, academic rank, years of leadership experience, and administrative unit size.

The second step was to ensure the stability and accuracy of translation from English to Arabic, so a back translation of the instruments from Arabic to English was performed by an expert in both languages, and a professor in educational leadership. After comparing the back translation with the original documents, the educational leadership professor suggested words to be modified or replaced in order to enhance the translation.

Next, the translated instruments were reviewed by a panel of four Arabic experts. Two of the experts are specialists in the leadership field, another is a full professor who has a Ph.D. from a university in the USA, and the fourth expert is a professor with a
doctorate in the English language. Recommendations from the experts were reviewed, and slight adjustments were made to the instruments.

Finally, a pilot study was conducted as an important step to examine the reliability and validity of the instruments, as well as to ensure that the instruments of this study were clear and concise. This process and its results are discussed further in the section below.

**Pilot Study and Instrument Calibration**

A pilot study is a term used to refer to the pretesting or trying out of a particular research instrument or research procedures (Baker, 1994). The aim of conducting the pilot study in this case was to examine and calibrate the survey instruments to be used to measure the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities. The data collected within the pilot study was isolated from the actual study data, and the necessary precautions were taken to ensure that respondents of the pilot study were not part of this actual study’s sample. The pilot study sample was random and stratified by university type and gender. The questionnaires were sent to 32 academic leaders from two public Saudi universities. After receiving the advisor's letter and the primary letter of WMU Human Subject Institutional Review Board (HISRB) (Appendix B) that assured my project research title, the IRB approvals at the local universities in Saudi Arabia were obtained. Subsequently, the pilot testing of the instruments was conducted utilizing hard copy questionnaires. Questionnaires were sent to the participants in the beginning in August 2015, and the pilot testing was completed in December 2015. The results of pilot testing were good and
acceptable, which will be explained in the next section. Therefore, it was not necessary to further modify the instruments.

**Psychological Empowerment Instrument (PEI)**

Psychological empowerment was examined using a 12-item scale that was adopted from Spreitzer (1995). The original instrument consists of 12 items that address the four dimensions of psychological empowerment. The revised PEI contained two parts, as well as a brief introduction regarding the purpose of this study and the confidentiality of the information provided (Appendix A).

**Part 1.** The first part included five multiple-choice questions that were used to describe the characteristics of the population sample (See Table 2).

**Table 2**

<table>
<thead>
<tr>
<th>Survey Questions to Collect Data on Participant Demographic Characteristics</th>
<th>Description of questions</th>
<th>Number of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University type</td>
<td>Established university, emerging university</td>
<td>(Part.1, Q.1)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Dean, vice dean, department chair, vice department chair</td>
<td>(Part.1, Q.2)</td>
</tr>
<tr>
<td>Academic rank</td>
<td>Professor, associate professor, assistant professor, lecturer</td>
<td>(Part.1, Q.3)</td>
</tr>
<tr>
<td>Leadership experience</td>
<td>Less than 5 years, from 5 years to 10 years, more than 10 years</td>
<td>(Part.1, Q.4)</td>
</tr>
<tr>
<td>Unit size</td>
<td>Less than 50 employees, from 50 to 100 employees, more than 100 employees</td>
<td>(Part.1, Q.5)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male, female</td>
<td>Depend on the two versions of the survey</td>
</tr>
</tbody>
</table>
Part 2. The second part measured the level of psychological empowerment for female academic leaders at Saudi universities. This part consisted of 12 items within four dimensions (meaning, competence, self-determination, and impact) at a rate of three items for each dimension. A six-point Likert scale (1 = strongly disagree to 6 = strongly agree, with no neutral point) was used to measure this variable. In the beginning of this part, respondents were asked to rate their agreement with the level of psychological empowerment for academic women leaders in their university. They were given the following note as an accurate prompt of the current variable: *Psychological empowerment is defined as “a motivational construct manifested in four cognitions: meaning, competence, self-determination, and impact”* (Spreitzer, 1995, p.1444).

PEI Reliability and Validity

The reliability of the adapted Spreitzer (1995) instrument for measuring psychological empowerment was measured using pilot study data. Overall, the instrument has a large Cronbach’s Alpha of 0.881, and the four main dimensions have good and acceptable reliabilities of 0.785, 0.683, 0.807, and 0.783, respectively. The guidelines to accept alpha values are: 0.90 to 1.0 excellent, 0.80 to 0.89 good, 0.70 to 0.79 acceptable, 0.60 to 0.69 questionable, 0.50 to 0.59 poor, and below .50 unacceptable (Cronbach, 1951). The reliability of this adopted instrument is better than the reliability of the original Spreitzer (1995) instrument, which was 0.72 and 0.62 for the industrial and insurance samples, respectively. The instrument’s high reliability is similar to the one adopted by Stander and Rothmann (2010), $\alpha = 0.91$, and the instrument used by Ghani, Hussin and Jusoff (2009), $\alpha = 0.86$. Similarly, the reliability of the instrument is supported by Bauce, Kridli and Fitzpatrick (2014), who reported an alpha of 0.84, and
Rose (2010), who reported reliabilities of 0.92, 0.91, 0.82 and 0.86 for the meaning, competence, self-determination, and impact dimension, respectively. Based on these findings, the reliability of the instrument was good and acceptable to measure psychological empowerment in this current study environment.

In addition, by following the same method that has been invoked in the validity of the scale in its original form, the convergent and discriminate validity of the instrument was evaluated using factor rotation. The Kaiser-Meyer-Olkin measure was 0.738, and the Bartlett’s statistic for the pilot study was significant (p < .001), which means that the pilot study data also suited the current study’s analysis. Factor extraction using Principal Component Analysis and Varimax rotation yielded four components, with each component having three item loadings between 0.527 and 0.886. These results were consistent with Spreitzer (1995), Stander and Rothmann (2010), and Ghani et al. (2009), who obtained four factors with three items each. Thus, the adopted instrument has both convergent and discriminate validity and was used to measure psychological empowerment in the current study environment.

**Administrative Creativity Instrument (ACI)**

Administrative creativity was measured using a 13-item scale that was adopted from Zhou and George (2001). The original survey addressed the creativity of office employees who held all types of jobs. The revised ACI contained two parts, as well as a brief introduction regarding the purpose of this study and the confidentiality of the information provided (Appendix A).

**Part 1.** The first part of ACI is similar to the first part of PEI. It included five multiple-choices questions that characterize the characteristics of the population sample.
See Table 2, above, for survey questions that collected data on participant demographic characteristics.

**Part 2.** The second part measured the level of administrative creativity for academic women leaders at Saudi universities. This part consisted of 13 items on a six-point Likert scale (1 = strongly disagree to 6 = strongly agree, with no neutral point). In the beginning of this part, respondents were asked to rate their beliefs about some of the creative practices on a scale. They were given the following note as an accurate prompt of the current variable: *Creativity is defined as “the production of novel and useful ideas in any domain”* (Amabile et al., 1996, p.1155).

**ACI Reliability and Validity**

The reliability of the adapted Zhou and George (2001) instrument was also measured during the pilot study to measure creativity in the environment of the current study. Overall, the instrument had a good and acceptable reliability of 0.811. In a study on the relationship between ambidextrous behavior and innovation among workers of information technology (IT) companies in the Philippines, Rodriguez and Hechanova (2014) measured creativity using a modified nine-item Zhou and George (2001) instrument, which had a reliability of 0.94. Similarly, Tang and Chang (2010) used the 13-item instrument to assess the relationship between role stress and employee creativity in Taiwan. In this case, the instrument’s reliability was 0.92. Ozbag (2014) utilized the instrument to evaluate the individual creativity of workers in various industries in Turkey and found a composite reliability of 0.89. Cerne, Jaklic and Skerlavaj (2013) used the survey to measure individual creativity among Slovenian workers and found a reliability of 0.80. Thus, it is plausible that the current instrument had good reliability in both the
pilot and current studies and was appropriate to be utilized to measure individual creativity.

The validity of the Zhou and George (2001) instrument was evaluated, using the extremist comparison method and the item-total correlations approach. The extremist comparison item-total approach indicated that the pilot and current instruments had good discriminate validity, while the correlation approach indicated good convergent validity since most of the correlations were above 0.4. Similarly, the instrument used by Tang and Chang (2010) had good discriminate validity as indicated by the average variance extracted (AVE = 0.65). The AVE for the instrument by Ozbag (2014) was 0.70 while the AVE for the instrument by Cerne, Jaklic and Skerlavaj (2013) was 0.61. Notably, the study by Rodriguez and Hechanova (2012) did not report the results on the instrument’s validity. In this context, the validity of the both the pilot and the current instruments were acceptable.

Data Collection Procedure

Data for this study was gathered via an online survey. Conducting web survey research is a preferable method since it has a high response rate (Kaplowitz, Hadlock, & Levine, 2006). It is also a preferable way when internet access is readily available for respondents, as it is at universities (Daley, Mcdermott, Mccormack Brown, & Kittleson, 2003). All of the targeted population of this study works in colleges that support internet access. Therefore, the supposition was that they would be more likely to complete web surveys than hard copy questionnaires. For this reason, an online survey seemed the best method to reach this subpopulation, as these participants would also be able to complete the survey on their own time at either an on-campus or off-campus personal computer or
smart device. Therefore, the internal electronic communications system was used to gain access to participants in most universities that since most supported research-electronic surveys.

An official email was sent directly to the leaders in some of the selected colleges and academic units from their chairs on my behalf to recruit the study’s participants (Appendix D, E, & F). This study also utilized personal e-mail addresses and mobile numbers to send text or WhatsApp messages to professors at other universities, as needed. Lists of email addresses and mobile numbers of leaders were obtained from the Saudi Ministry of Education Website at http://www.moe.gov.sa, as well as from each university’s Web page. The survey was administered using an efficient online survey tool called SurveyMonkey (http://www.surveymonkey.com/r/6D87KMC). This commercial survey tool is able to export data and results, and it reports descriptive statistics back to the user. It is also designed to secure data. SurveyMonkey was able to ensure data were anonymous, password-protected, and accessible only by the user. To avoid any technical problems with the online survey instrument, this survey was tested before being sent to respondents in order to correct unintentional errors.

Obtaining permissions to perform the intended research is an essential step. Therefore, the researcher had already received permissions from all six target universities in Saudi Arabia (Appendix C). This step was followed by obtaining an approval from the Human Subject Institutional Review Board (HSIRB) at Western Michigan University prior to distributing the initial e-mail invitation (Appendix B).

As mentioned previously, the suitable sample size for this study was determined to be 297. However, to guarantee the required number of respondents, an online survey
was sent to email addresses for 800 individuals who meet the study criteria. On May 30, 2016, the initial email invitation to participate was sent to all members of the selected sample population (Appendix D, E & F). Two follow-up reminders were sent to those who had not answered the survey (Appendix G, H). The electronic survey distribution tool tracks this information and automatically distributed reminders. The first reminder was sent within five days after the initial invitation, and the second one was sent to those who still had not responded 10 days after the initial invitation was sent (Appendix G, H).

**Data Analysis**

Data analysis was performed using the Statistical Program for the Social Sciences (SPSS 23.0). This program already was utilized to test the instruments of this study using pilot study data. Furthermore, SPSS was used to analyze the data required to answer the research questions. After the expiration of specified time for administration of the survey, the survey data was imported from SurveyMonkey directly into an Excel worksheet and then into SPSS. This step aims to exclude the transcription errors between the survey data and SPSS data input. In addition, identifiers, such as IP addresses and email addresses, were removed from the data set immediately to achieve the condition of anonymous questionnaires. Additionally, data analysis of the current study included the two stages presented in the following section.

**First Stage: Data Analysis Related to Pilot Study**

The first stage was data analysis related to the pilot study using SPSS. According to Baker (1994), a pilot study can be conducted to pre-test or tryout a research instrument. Therefore, this procedure was to assess the psychometric properties of the measurement instruments. The reliability is evaluated by calculating Cronbach’s alphas;
therefore, examination of the assumptions of the normal distribution is required prior to conducting the analysis. Therefore, to assess normal distribution, the skewness, kurtosis, and the Shapiro-Wilk test were calculated. Then SPSS was used to determine Cronbach’s alphas at each item, dimension and the total of each survey. To examine the validity of all measures, convergent and discriminate validity were evaluated for the PEI using factor analysis (Principal Component Analysis with Varimax Rotation). However, the extremist comparison method and the item-total correlations approach were used to evaluate the convergent and discriminate validity of ACI. Independent samples t-test and Pearson’s correlation coefficients were conducted to calculate that. More information regarding these tests was included in the pilot study and instrument calibration section.

In addition, the results of the pilot study indicated that both rates of the psychological empowerment and the administrative creativity were moderate ($M = 3.58$, $SD = 0.90$), ($M = 3.39$, $SD = 0.86$), respectively. Also, there was a positive relationship between psychological empowerment and administrative creativity as the value of the correlation coefficient was 0.39. However, even with the small sample size, administrative creativity increases for women leaders at Saudi universities as psychological empowerment increases for them. So that, the results of the pilot study were encouraging as this study was conducted and some adjustments were made in the questions to give the current study strength through studying the effect, rather than only studying the relationship between the variables.

**Second Stage: Data Analysis Related to Research Questions**

The second stage was data analysis related to the description of the sample study questions. In the beginning, a descriptive analysis of the demographic data was conducted
to describe the sample characteristics including frequencies, percentages, means and standard deviations. As mentioned previously, to determine the degree of respondents' perceptions with the survey items in its second and third parts and to answer the first and second study questions, a six-point Likert scale was used, with options include Strongly Disagree, Disagree, Slightly Disagree, Slightly Agree, Agree, and Strongly Agree. However, for identifying the level of psychological empowerment and administrative creativity, the scale has been modified from six to three points. Therefore, the final estimation level for arithmetic averages was determined according to the following: the arithmetic averages of (4.34 - 6.00), (2.67 - 4.33), and (1.00 – 2.66) show (a high level, a moderate level, and a low level) respectively. Data analysis relating to each research question is discussed below.

**Research Question 1.** What are both male and female leaders’ perceptions of women’s psychological empowerment?

To describe and compare the distribution of the responses given in answer to research question 1, the frequencies, means and standard deviations were calculated for the total ratings on the PEI and also ratings for each individual item and dimension. The level of psychological empowerment for academic women leaders was characterized by the averages calculated for each dimension and also the overall average. Related tables and histograms were presented as needed in chapter IV.

**Research Question 2.** What are both male and female leaders’ perceptions of the administrative creativity among women leaders?

To describe and compare the distribution of the responses given in answer to research question 2, descriptive statistics such as frequencies, means and standard
deviations were calculated for the total ratings on the ACI and also ratings for each individual item. The level of administrative creativity for academic women leaders was characterized by the overall averages. Related tables and histograms were presented as needed in chapter IV.

**Research Question 3.** How do perceptions of both psychological empowerment and administrative creativity differ between male and female leaders and between established and emerging universities?

To answer this question, F statistic (One-way ANOVA) was used to determine if there were statistically significant differences regarding the level of psychological empowerment and administrative creativity that were attributed to the difference of the gender as well as the university type. One-way ANOVA is an appropriate test is when comparing two groups or more groups.

**Research Question 4.** What other characteristics influence their perceptions of psychological empowerment and administrative creativity?

To answer this question, the linear multiple regression analysis was conducted to test the influence of some other characteristics, such as occupation, academic rank, leadership experience, and unit size, on the perceptions of male and female leaders of the level of psychological empowerment and administrative creativity for women leaders. According to Chatterjee, Hadi and Price (2000), regression analysis is a unique way for testing workable relationships between variables.

**Research Question 5.** To what extent do leaders’ senses of psychological empowerment for women leaders influence their administrative creativity?
To answer this question, linear multiple regression analysis was conducted to test the potential effects of the psychological empowerment and all its dimensions on administrative creativity. Cronk (2004) indicates that multiple regression analysis can be used to predict one variable from several variables. Put differently, regression consists of two or more independent variables and has only one dependent variable (Huck, 2004).

**Crosswalk Table**

Table 3 illustrates the alignment of the survey questions (Appendix A) with each specific research question. The type of data analysis performed for each research question is also shown for each research question.

Table 3

*Crosswalk Presentation of Study Variables*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Part from the Survey</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1</strong> What are both male and female leaders’ perceptions of women’s psychological empowerment?</td>
<td>Part1 &amp;2</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td><strong>Q2</strong> What are both male and female leaders’ perceptions of the administrative creativity among women leaders?</td>
<td>Part1 &amp;3</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td><strong>Q3</strong> How do perceptions of both psychological empowerment and administrative creativity differ between male and female leaders and between established and emerging universities?</td>
<td>Part1, 2, &amp;3</td>
<td>F statistic (One-way ANOVA)</td>
</tr>
<tr>
<td><strong>Q4</strong> What other characteristics influence their perceptions of psychological empowerment and administrative creativity?</td>
<td>Part1, 2, &amp;3</td>
<td>Linear Multiple regression analysis</td>
</tr>
<tr>
<td><strong>Q5</strong> To what extent do leaders’ senses of psychological empowerment for women leaders influence their administrative creativity?</td>
<td>Part1, 2, &amp;3</td>
<td>Linear Multiple regression analysis</td>
</tr>
</tbody>
</table>
Ethical Considerations

Obtaining permissions to recruit participants and conduct the intended research is an essential procedure. Therefore, the approvals for this study were gained from all target universities in Saudi Arabia and HSIRB at Western Michigan University. The data was collected via an online survey, and a written explanation indicating the issues of anonymity and confidentiality was given to all participants through the consent documents and survey. In addition, each subject was able to decide whether or not to take part in this study, with the reassurance that their responses would be anonymous. There are many ethical issues to consider in a quantitative research, such as fairness, honesty, integrity, respect for privacy, openness of intent, voluntary participation, and readiness of the research (Leedy, 1993). In this research I consider myself as an inside researcher and I have developed many deep-seated beliefs that support the ethics of scientific research in order to obtain the ethical implementation for the research and reliable results.

Delimitations

Delimitations are preferences made by the researcher. They are those characteristics that describe the boundaries that the researcher set for the study or those elements that can be controlled by the researcher. There are two major delimitations to consider when reviewing this study: (1) this study was delimited to the psychological empowerment for academic women leaders at Saudi universities because there are other aspects of empowerment, such as organizational empowerment; and (2) the population consists of the academic male and female faculty who work as leaders of a college, department, or any academic unit, such as dean, vice dean, chair, and vice chair at three established public universities and three emerging public universities in Saudi Arabia for
the 2015-2016 academic year. These academic leaders were selected because they are mandated with the leadership tasks that need high level authorities to implement their responsibilities.

**Limitations**

Of primary difficulty is reaching the absolute perfect degree for research designs since studies are always affected by many limitations. The limitations of this study were: (1) willingness of subjects to participate; (2) personal bias of respondents to the study issue that could not be controlled; (3) difficulties with making sure that the survey was sent via the networks of the various universities, which support e-survey. Efforts were made to remind the research officials in each university to ensure reaching the intended participants; and (4) participants may have felt pressure to answer questions in certain ways due to the fear that study results could contribute to losing some of their authorities. Therefore, affirmations also were included throughout the consent documents and the survey to ensure that the responses of participants would not be used for other purposes beside the aim of this study.

**Chapter III Summary**

Chapter III includes a discussion of variety topics that present the methodology which was employed to conduct this study. A quantitative approach was used to answer the research questions of this study. This chapter started by restating the research focus and explained the overall research design of the current study by thoroughly discussing the research questions, research design, the setting, the sample population, the measuring instruments, the pilot study, data collection, and data analysis. This chapter also includes some ethical considerations and, additionally, the delimitations and limitations of the
study. The following chapter, Chapter IV, represents details on the results of the data analyses that answer the research questions of this study.
CHAPTER IV

RESULTS

This chapter presents the statistical analysis of the obtained findings in order to answer the five research questions in this study. Specifically, at both established and emerging universities in Saudi Arabia: What are both male and female leaders’ perceptions of women’s psychological empowerment? What are their perceptions of the administrative creativity among women leaders? How do perceptions of both psychological empowerment and administrative creativity differ between male and female leaders and between established and emerging universities? What other demographic characteristics influence their perceptions of psychological empowerment and administrative creativity? To what extent do leaders’ sense of psychological empowerment for women leaders influence their administrative creativity? The following sections represent: (a) general information on survey response rates and demographic data, (b) a review of the reliability of the measuring surveys, and (c) analysis data for each research question. The results of the statistical analysis regarding the differences in men’s and women’s perceptions of psychological empowerment and administrative creativity are presented with their corresponding questions on overall perceptions; i.e., question 3 results are combined with question 1 and question 2 results. This is done for ease of interpretation and to address any redundancy that might result by taking each research question separately in order.
Participants and Demographic Data

As mentioned in Chapter III, the appropriate sample size for the target population equals 297 individuals. However, a Web survey invitation was distributed via email to 800 male and female leaders at six public universities in Saudi Arabia during summer 2016. Two follow-up reminders were sent to those who had not answered the survey to encourage them to participate in this study and to raise the study’s sample size. Table 4 presents the responses to the survey invitations. From these invitations, a total of 555 leaders opened the survey: 364 leaders completed the entire survey; 15 leaders completed the first two parts of the survey which are demographic information and the psychological empowerment question; 11 leaders responded “yes” to the consent screen, but did not complete any questions; 17 leaders responded “no” to the consent screen; and 148 leaders responded “yes” to the consent screen and completed some or all of the demographic information, but completed none of other questions. Two of the 364 completed surveys were excluded since they had extreme data: one of the respondents answered with strongly agree to all items and another respondent responded with strongly does not agree to all items. Consequently, the final sample size for this project is 377, which represents a 47.1% response rate out of 800 invitations. This percentage is suitable and representative of the national population of male and female leaders in the targeted Saudi universities as determined by the data collected from the Saudi Ministry of Education website.
The first part of this study instrument included five multiple-choice questions that were used to describe the characteristics of the study sample. The following section presents detailed information regarding the demographic variables: gender, university type, occupation, academic rank, leadership experience, and unit size. Table 5 contains the number of male and female respondents compared to the total numbers at the universities, and Tables 6 presents the number of male and female respondents compared to the university type. According to these two tables, 234 (62%) respondents were male and 143 (38%) were female. In addition, the sample had more male respondents from the established universities (161, 68%) than male respondents from the emerging universities (73, 53%). Likewise, the sample had more female respondents from the established universities (77, 32%) than female respondents from the emerging universities (66, 47%).

Table 4

<table>
<thead>
<tr>
<th>Situation</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants who completed the PE survey</td>
<td>377</td>
<td>47.1</td>
</tr>
<tr>
<td>Participants who completed the PE &amp; AC surveys</td>
<td>364</td>
<td>45.5</td>
</tr>
<tr>
<td>Participants who only completed the PE survey</td>
<td>15</td>
<td>1.9</td>
</tr>
<tr>
<td>Participants who responded “No” to the consent screen</td>
<td>17</td>
<td>2.1</td>
</tr>
<tr>
<td>Participants who responded “Yes” to the consent screen, but did not complete the questions</td>
<td>11</td>
<td>1.4</td>
</tr>
<tr>
<td>Participants who completed the demographic information or some of them</td>
<td>148</td>
<td>18.5</td>
</tr>
</tbody>
</table>
Table 5

*Numbers and Percentages of Male and Female at the Universities*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% Male</th>
<th>% Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities</td>
<td>863</td>
<td>360</td>
<td>1223</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>Study Participants</td>
<td>234</td>
<td>143</td>
<td>377</td>
<td>62%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Table 6

*Numbers and Percentages of Male and Female by University Type*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% Male</th>
<th>% Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established</td>
<td>161</td>
<td>77</td>
<td>238</td>
<td>68%</td>
<td>32%</td>
</tr>
<tr>
<td>Emerging</td>
<td>73</td>
<td>66</td>
<td>139</td>
<td>53%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Tables 7 and 8 contain the breakdown of occupation and academic rank by gender at both the established and emerging universities. As Table 7 indicates below, it is striking that the number of women who hold a senior position such as dean (10, 7%) and department chair (25, 17%) is much less than the number of their male counterparts which equals 37 (16%) and 137 (58%) for dean and department chair respectively. Furthermore, the sample had a large number of department chair participants (162, 43%), followed by vice dean (90, 24%), vice department chair (78, 21%), and dean (47, 12%) respectively. For the data displayed in Table 8, two hundred and six (55%) of the sample were assistant professors, followed by associate professors 110 (29%), lecturers 36 (9%), and full professors 25 (7%) respectively.
Tables 7 and 8 present detailed information regarding the years of leadership experience as well as the administrative unit size for respondents by gender respectively. As Table 9 shows, 169 (45%) of the respondents had from 5 years to 10 years of leadership experience, 142 (38%) had less than 5 years of leadership experience, and 66 (17%) indicated that they had more than 10 years of leadership experience. There was a significantly lower percentage (40%) of women who had five years or more of leadership experience than men (48%), which confirms the lateness in the empowerment of women leaders at Saudi universities.

As Table 10 indicates below, most participants who participated in this study (287, 76%) were leaders who supervise fewer than 50 employees in their administrative units, 32 (9%) supervise of more than 100 employees, and 58 (15%) were leaders who
supervise of from 50 to 100 employees. Also, there was a fairly close representation of male and female leaders for all administrative unit size categories.

Table 9

**Numbers and Percentages of Leadership Experience by Gender**

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total (%)</th>
<th>% Male</th>
<th>% Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>78</td>
<td>64</td>
<td>142 (38%)</td>
<td>33%</td>
<td>45%</td>
</tr>
<tr>
<td>From 5 years to 10 years</td>
<td>112</td>
<td>57</td>
<td>169 (45%)</td>
<td>48%</td>
<td>40%</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>44</td>
<td>22</td>
<td>66 (17%)</td>
<td>19%</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
<td>143</td>
<td>377 (100%)</td>
<td>62%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Table 10

**Numbers and Percentages of Administrative Unit size by Gender**

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total (%)</th>
<th>% Male</th>
<th>% Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50 employees</td>
<td>183</td>
<td>104</td>
<td>287 (76%)</td>
<td>78%</td>
<td>73%</td>
</tr>
<tr>
<td>50 - 100 employees</td>
<td>17</td>
<td>15</td>
<td>32 (9%)</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>More than 100 employees</td>
<td>34</td>
<td>24</td>
<td>58 (15%)</td>
<td>15%</td>
<td>17%</td>
</tr>
</tbody>
</table>

**Review of Reliability for the Instruments**

Both the adapted Spreitzer (1995) instrument for measuring psychological empowerment and Zhou and George’s (2001) instrument for measuring administrative creativity were checked again for reliability using the actual study data. The guidelines to accept alpha values are: 0.90 to 1.0 = excellent, 0.80 to 0.89 = good, 0.70 to 0.79 = acceptable, 0.60 to 0.69 = questionable, 0.50 to 0.59 = poor, and below .50 = unacceptable (Cronbach, 1951). As shown in Table 11, the psychological empowerment instrument has a stronger Cronbach’s Alpha (α = 0.909) in the actual study than the pilot study (α = 0.881). The Cronbach’s alpha coefficients for the four main dimensions, meaning, competence, self-determination, and impact, are all above 0.78. Similarly, the
The administrative creativity instrument has an excellent reliability ($\alpha = 0.935$) in the actual study compared to the pilot study ($\alpha = 0.811$). A high alpha value for both instruments can be utilized as evidence that the items and dimensions are measuring the underlying construct.

Table 11

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Items</th>
<th>Cronbach’s Alpha for the pilot study</th>
<th>Cronbach’s Alpha for the actual study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Empowerment</td>
<td>12</td>
<td>0.881</td>
<td>0.909</td>
</tr>
<tr>
<td>Meaning</td>
<td>3</td>
<td>0.785</td>
<td>0.786</td>
</tr>
<tr>
<td>Competence</td>
<td>3</td>
<td>0.683</td>
<td>0.912</td>
</tr>
<tr>
<td>Self-determination</td>
<td>3</td>
<td>0.807</td>
<td>0.893</td>
</tr>
<tr>
<td>Impact</td>
<td>3</td>
<td>0.783</td>
<td>0.945</td>
</tr>
<tr>
<td>Administrative Creativity</td>
<td>13</td>
<td>0.811</td>
<td>0.935</td>
</tr>
</tbody>
</table>

Research Question Results

The purpose of this section is to present the results of the statistical analyses of the Empowerment for Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity Survey that was developed for this study. Data were analyzed to answer the five research questions, which are presented in the following section. Descriptive statistics were used to determine the level of psychological empowerment and administrative creativity for the study’s sample. One-way ANOVAs were calculated to determine any differences among the participants’ perspectives regarding the level of psychological empowerment and administrative creativity that can be attributed to the demographic study variables. Finally, multiple regressions analysis was computed to find the influence of psychological empowerment on administrative
creativity for academic women leaders and to test the influence of some other characteristics.

Results Related to the Research Questions 1 and 3

Research question 1 and 3 asked, "What are both male and female leaders’ perceptions of women’s psychological empowerment? And how do perceptions of psychological empowerment differ between male and female leaders and between established and emerging universities?" The first part of these integrated questions explores male and female leaders’ combined perceptions about the psychological empowerment of academic women leaders at Saudi universities, while the second part explores whether the academic leaders’ perceptions towards psychological empowerment vary by gender and university type.

First Part: Psychological Empowerment Levels of Academic Women Leaders

The first part of the above integrated questions asked, "What are both male and female leaders’ perceptions of women’s psychological empowerment?" In order to answer this question, the frequencies, percentages, means (M) and standard deviations (SD) were calculated for the total ratings on the PEI and also the ratings for each individual item and dimension.

Table 12 presents the frequency counts and percentage of responses for the 12 items in the PEI, which explored male leaders’ perceptions about the psychological empowerment of academic women leaders at Saudi universities. Response alternatives ranged from 1 (Strongly disagree) to 6 (Strongly agree). As shown, each of the 12 items was rated in the 3 and 4 -points range. The lowest rated items were They have significant influence over what happens in their department (M = 3.17, SD = 1.26) and They have a
great deal of control over what happens in their department \((M = 3.25, SD = 1.11)\). The highest rated items were The work they do is meaningful to them \((M = 4.96, SD = 0.87)\) and The work they do is very important to them \((M = 4.91, SD = 0.93)\).

Table 12

<table>
<thead>
<tr>
<th>Psychological Empowerment</th>
<th>Frequency Counts and (%) of Responses</th>
<th>Means ((M))</th>
<th>SD ((SD))</th>
</tr>
</thead>
<tbody>
<tr>
<td>The work they do is very important to them</td>
<td>7 (3.0) 2 (0.9) 3 (1.3) 20 (8.5) 162 (69.2) 40 (17.1)</td>
<td>4.91</td>
<td>0.93</td>
</tr>
<tr>
<td>The work they do is meaningful to them</td>
<td>3 (1.3) 6 (2.6) 2 (0.9) 21 (9.0) 157 (67.1) 45 (19.2)</td>
<td>4.96</td>
<td>0.87</td>
</tr>
<tr>
<td>Their job activities are personally meaningful to them</td>
<td>2 (0.9) 8 (3.4) 11 (4.7) 28 (12.0) 140 (59.8) 45 (19.2)</td>
<td>4.84</td>
<td>0.96</td>
</tr>
<tr>
<td>They confident about their ability to do their job</td>
<td>2 (0.9) 4 (1.7) 11 (4.7) 49 (20.9) 131 (56.0) 37 (15.8)</td>
<td>4.77</td>
<td>0.89</td>
</tr>
<tr>
<td>They are self-assured about their capabilities to perform their work activities</td>
<td>5 (2.1) 5 (2.1) 11 (4.7) 49 (20.9) 136 (58.1) 28 (12.0)</td>
<td>4.67</td>
<td>0.97</td>
</tr>
<tr>
<td>They have mastered the skills necessary for their job</td>
<td>3 (1.3) 15 (6.4) 13 (5.6) 48 (20.5) 126 (53.8) 29 (12.4)</td>
<td>4.56</td>
<td>1.07</td>
</tr>
<tr>
<td>They have significant autonomy in determining how they do their job</td>
<td>8 (3.4) 23 (9.8) 62 (26.5) 102 (43.6) 36 (15.4) 3 (1.3)</td>
<td>3.62</td>
<td>1.01</td>
</tr>
<tr>
<td>They can decide on their own how to go about doing their work</td>
<td>8 (3.4) 23 (9.8) 70 (29.9) 98 (41.9) 30 (12.8) 5 (2.1)</td>
<td>3.57</td>
<td>1.02</td>
</tr>
<tr>
<td>They have considerable opportunities for independence and freedom in how they do their job</td>
<td>10 (3.4) 27 (11.5) 101 (43.2) 58 (24.8) 33 (14.1) 5 (2.1)</td>
<td>3.39</td>
<td>1.07</td>
</tr>
<tr>
<td>Their impact on what happens in their department is great</td>
<td>3 (1.3) 41 (17.5) 83 (35.5) 67 (28.6) 34 (14.5) 6 (2.6)</td>
<td>3.45</td>
<td>1.06</td>
</tr>
<tr>
<td>They have a great deal of control over what happens in their department</td>
<td>8 (3.4) 56 (23.9) 76 (32.5) 62 (26.5) 27 (11.5) 5 (2.1)</td>
<td>3.25</td>
<td>1.11</td>
</tr>
<tr>
<td>They have significant influence over what happens in their department</td>
<td>12 (5.1) 71 (30.3) 68 (29.1) 40 (17.1) 34 (14.5) 9 (3.8)</td>
<td>3.17</td>
<td>1.26</td>
</tr>
</tbody>
</table>

Note. All 12 items were rated on a 6-point Likert scale with 1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Agree, and 6 = Strongly agree.
As mentioned, the general score of psychological empowerment was created from 12 items in the PEI, resulting in four dimension subscales: (1) Meaning, (2) Competence, (3) Self-Determination, and (4) Impact. Table 13 shows the descriptive statistics for these dimensions and the overall score on the PIE based on male leaders’ responses.

Table 13

Descriptive Statistics for Male Leaders’ Responses on PEI Overall and Subscales (N = 234)

<table>
<thead>
<tr>
<th>Dimensions of Psychological Empowerment</th>
<th>Means (M)</th>
<th>Standard Deviations (SD)</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension of Meaning</td>
<td>4.90</td>
<td>0.77</td>
<td>High</td>
</tr>
<tr>
<td>Dimension of Competence</td>
<td>4.67</td>
<td>0.87</td>
<td>High</td>
</tr>
<tr>
<td>Dimension of Self-Determination</td>
<td>3.53</td>
<td>0.90</td>
<td>Moderate</td>
</tr>
<tr>
<td>Dimension of Impact</td>
<td>3.29</td>
<td>1.05</td>
<td>Moderate</td>
</tr>
<tr>
<td>Psychological Empowerment overall</td>
<td>4.10</td>
<td>0.67</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

As shown in Table 13, from male leaders’ perspectives, the total psychological empowerment score was 4.10 with a standard deviation of 0.67 which reflects a moderate level of psychological empowerment for academic women leaders at Saudi universities.

The highest rated subscale was Meaning (M = 4.90, SD = 0.77), followed by Competence (M = 4.67, SD = 0.87). The lowest rated subscales were Impact (M = 3.29, SD = 0.05) and Self-Determination (M = 3.53, SD = 0.90).

Table 14 presents the frequency counts and percentage of responses for the 12 items in the PEI, which explored women’s psychological empowerment at Saudi universities from their own perspectives. As shown, the lowest rated item was I have considerable opportunities for independence and freedom in how I do my job (M = 3.73,
Each of the other items was rated in the 4 and 5-points range. The highest rated item was *I am confident about my ability to do my job* ($M = 5.48, SD = 0.85$), followed by *I am self-assured about my capabilities to perform my work activities* ($M = 5.46, SD = 0.84$).

Table 14

*Frequency Counts and Percentages of Female Leaders' Responses about their Psychological Empowerment (N = 143)*

<table>
<thead>
<tr>
<th>Psychological Empowerment</th>
<th>Frequency Counts and (%) of Responses</th>
<th>Means (M) (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The work I do is very important to me</td>
<td>4 (2.8) 1 (0.7) 2 (1.4) 16 (11.2) 71 (49.7) 49 (34.3)</td>
<td>5.07 (1.01)</td>
</tr>
<tr>
<td>The work I do is meaningful to me</td>
<td>1 (0.7) 1 (0.7) 1 (0.7) 9 (6.3) 72 (50.3) 59 (41.3)</td>
<td>5.29 (0.78)</td>
</tr>
<tr>
<td>My job activities are personally meaningful to me</td>
<td>1 (0.7) 4 (2.8) 3 (2.1) 12 (8.4) 86 (60.1) 37 (25.9)</td>
<td>5.02 (0.89)</td>
</tr>
<tr>
<td>I am confident about my ability to do my job</td>
<td>2 (1.4) 0 (0.0) 2 (1.4) 7 (4.9) 44 (30.8) 88 (61.5)</td>
<td>5.48 (0.85)</td>
</tr>
<tr>
<td>I am self-assured about my capabilities to perform my work activities</td>
<td>2 (1.4) 0 (0.0) 2 (1.4) 6 (4.2) 49 (34.3) 84 (25.9)</td>
<td>5.46 (0.84)</td>
</tr>
<tr>
<td>I have mastered the skills necessary for my job</td>
<td>2 (1.4) 0 (0.0) 0 (0.0) 9 (6.3) 59 (41.3) 73 (51.0)</td>
<td>5.39 (0.81)</td>
</tr>
<tr>
<td>I have significant autonomy in determining how I do my job</td>
<td>6 (4.2) 14 (9.8) 16 (11.2) 38 (26.6) 38 (26.6) 31 (21.7)</td>
<td>4.27 (1.40)</td>
</tr>
<tr>
<td>I can decide on my own how to go about doing my work</td>
<td>7 (4.9) 13 (9.1) 17 (11.9) 29 (20.3) 43 (30.1) 34 (23.8)</td>
<td>4.33 (1.44)</td>
</tr>
<tr>
<td>I have considerable opportunities for independence and freedom in how I do my job</td>
<td>12 (8.4) 19 (13.3) 30 (21.0) 35 (24.5) 28 (19.6) 19 (13.3)</td>
<td>3.73 (1.47)</td>
</tr>
<tr>
<td>My impact on what happens in my department is great</td>
<td>12 (8.4) 14 (9.8) 16 (11.2) 26 (18.2) 43 (30.1) 32 (22.4)</td>
<td>4.19 (1.56)</td>
</tr>
<tr>
<td>I have a great deal of control over what happens in my department</td>
<td>11 (7.7) 22 (15.4) 14 (9.8) 24 (16.8) 33 (23.1) 39 (27.3)</td>
<td>4.14 (1.65)</td>
</tr>
<tr>
<td>I have significant influence over what happens in my department</td>
<td>13 (7.7) 24 (15.4) 12 (9.8) 23 (16.8) 43 (23.1) 28 (19.6)</td>
<td>4.00 (1.64)</td>
</tr>
</tbody>
</table>

Note. All 12 items were rated on a 6-point Likert scale with 1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Agree, and 6 = Strongly agree.
Table 15 shows the descriptive statistics for the overall score of psychological empowerment and its subscales from female leaders' perspectives. The total psychological empowerment score was 4.70 with a standard deviation of 0.89, which reflects a high level of psychological empowerment for academic women leaders at Saudi universities. The highest rated subscale was Competence ($M = 5.45$, $SD = 0.79$), followed by Meaning ($M = 5.13$, $SD = 0.74$). The lowest rated subscales were Self-Determination ($M = 4.11$, $SD = 1.34$) and Impact ($M = 4.11$, $SD = 1.56$).

Table 15

<table>
<thead>
<tr>
<th>Dimensions of Psychological Empowerment</th>
<th>Means ($M$)</th>
<th>Standard Deviations ($SD$)</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension of Competence</td>
<td>5.45</td>
<td>0.79</td>
<td>High</td>
</tr>
<tr>
<td>Dimension of Meaning</td>
<td>5.13</td>
<td>0.74</td>
<td>High</td>
</tr>
<tr>
<td>Dimension of Self-Determination</td>
<td>4.11</td>
<td>1.34</td>
<td>Moderate</td>
</tr>
<tr>
<td>Dimension of Impact</td>
<td>4.11</td>
<td>1.56</td>
<td>Moderate</td>
</tr>
<tr>
<td>Psychological Empowerment overall</td>
<td>4.70</td>
<td>0.89</td>
<td>High</td>
</tr>
</tbody>
</table>

Overall, Tables 16 and 17 show the subscore means and standard deviations for each item of the PEI and its four dimensions from both male and female leaders' perceptions. The general mean and standard deviation are also displayed. Table 16 shows the frequency counts and percentages of male and female leaders' responses about their perceptions of psychological empowerment for academic women leaders. As shown, the highest rated items in the PEI were *The work I do is meaningful to me* ($M = 5.08$, $SD = 0.84$), *I am confident about my ability to do my job* ($M = 5.04$, $SD = 0.94$), *The work I do is very important to me* ($M = 4.97$, $SD = 0.96$), and *I am self-assured about my
capabilities to perform my work activities ($M = 4.97, SD = 0.99$). The lowest rated items in the PEI were I have significant influence over what happens in my department ($M = 3.49, SD = 1.47$), I have considerable opportunities for independence and freedom in how I do my job ($M = 3.52, SD = 1.25$), and I have a great deal of control over what happens in my department ($M = 3.59, SD = 1.41$). The other five items in the PEI were distributed on the range equals 1.18 ($M = 3.73$ to $M = 4.91$).

According to the three point scale that has been developed to rate means and identify degree of psychological empowerment, descriptive statistical analysis detected six items reflect a high level of psychological empowerment for academic women leaders at Saudi universities and six items reflect a moderate level of psychological empowerment for them. As reported in Table 16, the rating of the all PEI items did not reach neither the average at the higher ends of the scales nor the lower ends which ranged from 1 to 6.
As mentioned, the PIE consists of four dimensions. Table 17 presents the subscore means and standard deviations for psychological empowerment and the total scores. As reported in Table 17, none of these dimensions were rated on average at the higher or lower ends of the scales. The highest rated dimensions were Meaning ($M = 4.99, SD = 0.77$) and Competence ($M = 4.96, SD = 0.92$). The lowest rated dimension was Impact ($M = 3.60, SD = 1.33$) while, the dimension of Self-Determination ranked third ($M = 3.75, SD = 1.12$). From Table 17 and Figure 2, the total psychological empowerment score was 4.33 with a standard deviation of 0.815 which reflects a moderate level of psychological empowerment for academic women leaders at Saudi universities.
Table 17

Descriptive Statistics for Male and Female Leaders' Responses on PEI
Overall and Subscales (N = 377)

<table>
<thead>
<tr>
<th>Dimensions of Psychological Empowerment</th>
<th>Means (M)</th>
<th>Standard Deviations (SD)</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension of Meaning</td>
<td>4.99</td>
<td>0.77</td>
<td>High</td>
</tr>
<tr>
<td>Dimension of Competence</td>
<td>4.96</td>
<td>0.92</td>
<td>High</td>
</tr>
<tr>
<td>Dimension of Self-Determination</td>
<td>3.75</td>
<td>1.12</td>
<td>Moderate</td>
</tr>
<tr>
<td>Dimension of Impact</td>
<td>3.60</td>
<td>1.33</td>
<td>Moderate</td>
</tr>
<tr>
<td>Psychological Empowerment overall</td>
<td>4.33</td>
<td>0.815</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

**Figure 2.** Histogram of scores on psychological empowerment.

**Second Part: Differences According to Gender and University type**

As mentioned previously, the second part of the integrated questions asked, "How do perceptions of psychological empowerment differ between male and female leaders and between established and emerging universities?" In order to answer this question, the mean of the PEI scores were compared according to each demographic variable.
Comparison of the total psychological empowerment score and its four dimensions by gender is reported first, followed by comparison of scores by university type. Thus, the current assessment evaluates whether the academic leaders’ perceptions towards psychological empowerment vary by gender and university type. In this regard, two one-way ANOVAs were performed to compare the differences in the average perceptions of academic leaders. In the analysis, the three main ANOVA assumptions are ascertained, including independent observations for the dependent variable, equal variances for the independent variables across the groups, and normally distributed data for the dependent variable across the groups.

**Total Psychological Empowerment by Gender**

The observations for the perceptions of academic leaders about academic women leaders’ psychological empowerment are independent. An evaluation of the distribution of the academic leaders’ perceptions by gender indicates no major violation of the normality assumption either for the perceptions of total psychological empowerment or the perceptions of its all four dimensions.

However, the data on total psychological empowerment does not satisfy the homogeneity of variances assumption. In this case, the Welch’s F-statistic is used. The results in Table 18 indicate significant differences in the average perceptions of females’ psychological empowerment between male ($M = 4.10, SD = 0.67$) and female academic leaders ($M = 4.70, SD = 0.89$); $F(1, 239.72) = 48.103, p < .001$. According to the test, male respondents had less sense of women’s psychological empowerment than female respondents.
### Table 18

**ANOVA of Total Psychological Empowerment by Gender**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>31.950</td>
<td>1</td>
<td>31.950</td>
<td>54.942</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>218.073</td>
<td>375</td>
<td>.582</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250.023</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Meaning by Gender

The variances of meaning scores are equal for males and females as the Levene test is not significant, $p = .569$. Consequently, the ANOVA results in Table 19 show significant differences in the average perceptions of Meaning between males and females; $F(1, 375) = 7.50, p < .05$. In this case, female leaders ($M = 5.13, SD = 0.74$) have higher average perceptions of Meaning regarding their work than males ($M = 4.90, SD = 0.77$).

### Table 19

**ANOVA Results of Meaning by Gender**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.347</td>
<td>1</td>
<td>4.347</td>
<td>7.504</td>
<td>.006</td>
</tr>
<tr>
<td>Within Groups</td>
<td>217.269</td>
<td>375</td>
<td>.579</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>221.617</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Competence by Gender

The variances in perceptions of Competence for males and females are equal, as indicated by the non-significant Levene statistic, $p = .264$. The ANOVA results in Table 20 indicate significant differences in the average perceptions of Competence between males and females, $F(1, 375) = 75.79, p < .001$. On average, female leaders ($M = 5.45$, $SD = 0.74$).
have a higher perceptions of their own competence than males leaders have of them ($M = 4.67, SD = 0.87$).

Table 20

<table>
<thead>
<tr>
<th>ANOVA Results of Competence by Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Between Groups</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

**Self- determination by Gender**

The variances in Self- determination scores are unequal for males and females, $p < .001$. Consequently, the results of the Welch’s F-ratio indicate a significant difference in the average perceptions of Self- determination between males and females, $F(1, 219.79) = .2109, p < .001$ (see Table 21). In this case, female leaders ($M = 4.11, SD = 1.34$) have higher perceptions of their own self- determination than male leaders do of them ($M = 3.53, SD = 0.90$).

Table 21

<table>
<thead>
<tr>
<th>ANOVA Results of Self- determination by Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Between Groups</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

**Impact by Gender**

The variances in perceptions of Impact are unequal for males and females, $p < .001$. The one-way ANOVA in Table 22 shows that the mean perceptions of impact are
significantly different between males and females leaders, \( F(1, 221.15) = 30.65, p < .001 \).

Female academic leaders (\( M = 4.11, SD = 1.56 \)) have a higher average perception of their own impact than male leaders do of their impact (\( M = 3.29, SD = 1.05 \)).

Table 22

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>59.323</td>
<td>1</td>
<td>59.323</td>
<td>36.798</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>604.551</td>
<td>375</td>
<td>1.612</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>663.874</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Psychological Empowerment by University Type**

The distribution of the academic leaders’ perceptions by university types is relatively normal either for the total psychological empowerment or its all four dimensions.

However, the variances of perceptions of academic women leaders’ psychological empowerment are unequal for the data of total psychological empowerment. This necessitates the use of the Welch’s F-ratio. The ANOVA results in Table 23 indicate that the average perceptions of academic women leaders’ psychological empowerment are different between established universities (\( M = 4.24, SD = 0.73 \)) and emerging universities (\( M = 4.47, SD = 0.92 \); \( F(1, 239.92) = 6.43, p < .05 \). According to the test, respondents from established universities were less aware of women’s psychological empowerment than respondents from emerging universities.
Table 23

ANOVA of Total Psychological Empowerment by University Type

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.736</td>
<td>1</td>
<td>4.736</td>
<td>7.241</td>
<td>.007</td>
</tr>
<tr>
<td>Within Groups</td>
<td>245.287</td>
<td>375</td>
<td>.654</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250.023</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Meaning by University Type

The Levene test is very significant, $p < .05$, which indicates that the variances of academic leaders’ perceptions of meaning are unequal for the different university types. The ANOVA results in Table 24 using the Welch’s F-ratio indicates no significant difference in average perceptions of meaning between academic leaders in established universities ($M = 5.00, SD = 0.73$) and emerging universities ($M = 4.96, SD = 0.84$); $F(1, 257.52) = .208, p = .649$.

Table 24

ANOVA Results of Meaning by University Type

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.132</td>
<td>1</td>
<td>.132</td>
<td>.223</td>
<td>.637</td>
</tr>
<tr>
<td>Within Groups</td>
<td>221.485</td>
<td>375</td>
<td>.591</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>221.617</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Competence by University Type

The variances of competence scores are equal for both university types, $p = .091$. The ANOVA results in Table 25 show no significant differences in the average perception of competence between academic leaders in established universities ($M = 4.98, SD = 0.89$) and those in emerging universities ($M = 4.93, SD = 0.98$); $F(1, 375) = .219, p = .640$. 
Table 25

**ANOVA Results of Competence by University Type**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.187</td>
<td>1</td>
<td>.187</td>
<td>.219</td>
<td>.640</td>
</tr>
<tr>
<td>Within Groups</td>
<td>319.824</td>
<td>375</td>
<td>.853</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>320.011</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-determination by University Type**

The variances of the Self-determination scores for both groups are not homogenous, $p < .001$. The ANOVA results in Table 26 indicate significant mean differences in the perceptions of self-determination between academic leaders in both universities, $F(1, 233.10) = 4.22$, $p = .041$. In particular, academic leaders in emerging universities ($M = 3.91$, $SD = 1.30$) have higher perceptions of self-determination than those in established universities ($M = 3.65$, $SD = 0.997$).

Table 26

**ANOVA Results of Self-determination by University Type**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6.042</td>
<td>1</td>
<td>6.042</td>
<td>4.838</td>
<td>.028</td>
</tr>
<tr>
<td>Within Groups</td>
<td>468.352</td>
<td>375</td>
<td>1.249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>474.394</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Impact by University Type**

The variances of impact scores are homogenous for both groups of academic leaders, $p = .088$. The ANOVA in Table 27 is highly significant, $F(1, 375) = 30.28$, $p < .001$. In this regard, the academic leaders in emerging universities ($M = 4.08$, $SD = 1.41$) have higher average perception of impact than academic leaders in established universities ($M = 3.32$, $SD = 1.20$).
Table 27

ANOVA Results of Impact by University Type

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>49.598</td>
<td>1</td>
<td>49.598</td>
<td>30.278</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>614.276</td>
<td>375</td>
<td>1.638</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>663.874</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results Related to the Research Questions 2 and 3

Research question 2 and 3 asked, "What are their perceptions of the administrative creativity among women leaders? How do perceptions of administrative creativity differ between male and female leaders and between established and emerging universities?" The first part of these integrated questions explores male and female leaders’ perceptions about the administrative creativity among academic women leaders at Saudi universities, while the second part explores whether the academic leaders’ perceptions towards administrative creativity vary by gender and university type.

First Part: Administrative Creativity Levels among Academic Women Leaders

The first part of the above integrated questions asked, "What are their perceptions of the administrative creativity among women leaders?" In order to answer this question, the frequencies, percentages, means (M) and standard deviations (SD) were calculated for the total ratings on the ACI and also the ratings for each individual item. Table 28 presents the frequency counts and percentage of responses for the 13 items in ACI, which explored male leaders’ perceptions about the administrative creativity among academic women leaders at Saudi universities. Response alternatives ranged from 1 (Strongly disagree) to 6 (Strongly agree).
As shown in Table 28, each of the items which were rated in the 4-point range except three items was rated in the 2, 3, and 5-points range. The lowest rated items were

*They are not afraid to take risks* (*M* = 2.69, *SD* = 1.23) and *They promote and champions ideas to others* (*M* = 3.38, *SD* = 1.11). The highest rated item was *They exhibit creativity on the job when given the opportunities* (*M* = 5.00, *SD* = 1.02). In general, the total administrative creativity score was 4.20 with a standard deviation of 0.75 which reflects a moderate level of administrative creativity among academic women leaders from male Leaders' perspectives.
Table 28

Frequency Counts and Percentages of Male Leaders’ Responses about the Administrative Creativity among Academic Women Leaders (N = 226)

<table>
<thead>
<tr>
<th>Administrative Creativity</th>
<th>Frequency Counts and (%) of Responses</th>
<th>Means (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>They suggest new ways to achieve goals or objectives</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>(1.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They come up with new and practical ideas to improve performance</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>(1.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They search out new technologies, processes, techniques, and/or product ideas</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>(1.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They suggest new ways to increase quality</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>(0.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They are a good source of creative ideas</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>(1.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They are not afraid to take risks</td>
<td>34</td>
<td>81</td>
</tr>
<tr>
<td>(14.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They promote and champions ideas to others</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>(1.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They exhibit creativity on the job when given the opportunities</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>(1.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They develop adequate plans and schedules for the implantation of new ideas</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>(1.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They often have new and innovative ideas</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>(3.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They come up with creative solutions to problems</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>(2.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They often have a fresh approach to problems</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>(3.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>They suggest new ways of performing work tasks</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>(2.1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Administrative Creativity overall

|                                                                  | 4.20 |
| (0.75)                                                            |

Note. All 13 items were rated on a 6-point Likert scale with 1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Agree, and 6 = Strongly agree.
Table 29 presents the frequency counts and percentage of responses for the 13 items in the ACI, which explored administrative creativity among academic women leaders at Saudi universities from their perspectives.

Table 29

**Frequency Counts and Percentages of Female Leaders' Responses about the Administrative Creativity among them (N = 136)**

<table>
<thead>
<tr>
<th>Administrative Creativity</th>
<th>Frequency Counts and (%) of Responses</th>
<th>Means (M)</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I suggest new ways to achieve goals or objectives</td>
<td>1 0 0 14 83 38</td>
<td>5.15</td>
<td></td>
</tr>
<tr>
<td>I come up with new and practical ideas to improve performance</td>
<td>2 1 0 13 70 50</td>
<td>5.19</td>
<td></td>
</tr>
<tr>
<td>I search out new technologies, processes, techniques, and/or product ideas</td>
<td>1 2 1 21 69 42</td>
<td>5.07</td>
<td></td>
</tr>
<tr>
<td>I suggest new ways to increase quality</td>
<td>1 0 1 17 75 42</td>
<td>5.14</td>
<td></td>
</tr>
<tr>
<td>I am a good source of creative ideas</td>
<td>1 0 3 22 63 47</td>
<td>5.11</td>
<td></td>
</tr>
<tr>
<td>I am not afraid to take risks</td>
<td>2 11 21 25 29 48</td>
<td>4.56</td>
<td></td>
</tr>
<tr>
<td>I promote and champion ideas for others</td>
<td>4 4 7 21 62 38</td>
<td>4.82</td>
<td></td>
</tr>
<tr>
<td>I exhibit creativity on the job when given the opportunities</td>
<td>1 1 0 6 49 79</td>
<td>5.49</td>
<td></td>
</tr>
<tr>
<td>I develop adequate plans and schedules for the implantation of new ideas</td>
<td>1 1 2 18 80 34</td>
<td>5.04</td>
<td></td>
</tr>
<tr>
<td>I often have new and innovative ideas</td>
<td>1 1 4 19 80 31</td>
<td>4.98</td>
<td></td>
</tr>
<tr>
<td>I come up with creative solutions to problems</td>
<td>1 1 4 22 77 31</td>
<td>4.96</td>
<td></td>
</tr>
<tr>
<td>I often have a fresh approach to problems</td>
<td>1 0 6 26 83 20</td>
<td>4.84</td>
<td></td>
</tr>
<tr>
<td>I suggest new ways of performing work tasks</td>
<td>1 0 2 12 89 32</td>
<td>5.09</td>
<td></td>
</tr>
<tr>
<td>Administrative Creativity overall</td>
<td>1 1 4 19 80 31</td>
<td>5.03</td>
<td></td>
</tr>
<tr>
<td><strong>Note.</strong> All 13 items were rated on a 6-point Likert scale with 1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Agree, and 6 = Strongly agree.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As reported in Table 29, each of the items was rated in the 4 and 5 points range. The lowest rated item was *I am not afraid to take risks* ($M = 4.56, \text{SD} = 1.39$). The highest rated item was *I exhibit creativity on the job when given the opportunities* ($M = 5.49, \text{SD} = 0.76$). It is noted that there was a consensus between the opinion of men and women about the highest and lowest rated items in this part. The total administrative creativity score was 5.03 with a standard deviation of 0.62 which reflects a high level of administrative creativity among academic women leaders from their perspectives.

Overall, the general score of administrative creativity was created from 13 items in the ACI. Table 30 presents the frequency counts and percentage of responses for each item in the ACI, which explored male and female leaders’ perceptions of the administrative creativity among academic women leaders at Saudi universities. It is obvious that the highest rated item in the ACI was *I exhibit creativity on the job when given the opportunities* ($M = 5.18, \text{SD} = 0.96$). In contrast, the lowest rated item in the ACI was *I am not afraid to take risks* ($M = 3.39, \text{SD} = 1.58$), followed by *I promote and champion ideas to others* ($M = 3.92, \text{SD} = 1.32$). As shown, each of the other ten items in the ACI was rated in the 4-point range which extended from *I often have a fresh approach to problems* ($M = 4.40, \text{SD} = 1.05$) to *I am a good source of creative ideas* ($M = 4.90, \text{SD} = 1.06$).

The total score of the administrative creativity was created from the 13 items in the ACI. Table 30 and Figure 3 illustrated that the total mean was 4.51 with a standard deviation of 0.81. This value reflects a high level of administrative creativity among academic women leaders at Saudi universities. Although the total administrative
creativity score touched the high level, it did not exceed the boundary point (4.329) between the high and moderate level with a large range.

Table 30

*Frequency Counts and Percentages of Leaders' Responses about the Administrative Creativity among Academic Women Leaders (N = 362)*

<table>
<thead>
<tr>
<th>Administrative Creativity</th>
<th>Means (M)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I suggest new ways to achieve goals or objectives</td>
<td>4.78</td>
<td>0.84</td>
</tr>
<tr>
<td>I come up with new and practical ideas to improve performance</td>
<td>4.81</td>
<td>0.93</td>
</tr>
<tr>
<td>I search out new technologies, processes, techniques, and/or product ideas</td>
<td>4.52</td>
<td>1.06</td>
</tr>
<tr>
<td>I suggest new ways to increase quality</td>
<td>4.55</td>
<td>0.98</td>
</tr>
<tr>
<td>I am a good source of creative ideas</td>
<td>4.90</td>
<td>1.06</td>
</tr>
<tr>
<td>I am not afraid to take risks</td>
<td>3.39</td>
<td>1.58</td>
</tr>
<tr>
<td>I promote and champions ideas to others</td>
<td>3.92</td>
<td>1.32</td>
</tr>
<tr>
<td>I exhibit creativity on the job when given the opportunities</td>
<td>5.18</td>
<td>0.96</td>
</tr>
<tr>
<td>I develop adequate plans and schedules for the implantation of new ideas</td>
<td>4.60</td>
<td>0.94</td>
</tr>
<tr>
<td>I often have new and innovative ideas</td>
<td>4.55</td>
<td>0.99</td>
</tr>
<tr>
<td>I come up with creative solutions to problems</td>
<td>4.48</td>
<td>1.02</td>
</tr>
<tr>
<td>I often have a fresh approach to problems</td>
<td>4.40</td>
<td>1.05</td>
</tr>
<tr>
<td>I suggest new ways of performing work tasks</td>
<td>4.56</td>
<td>1.00</td>
</tr>
<tr>
<td>Administrative Creativity overall</td>
<td>4.51</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Note. All 13 items were rated on a 6-point Likert scale with 1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Agree, and 6 = Strongly agree.
Second Part: Differences According to Gender and University type

As mentioned previously, the second part of the integrated questions asked, "How do perceptions of administrative creativity differ between male and female leaders and between established and emerging universities?" In order to answer this question, the mean of ACI scores were compared according to each demographic variable. Comparison of total administrative creativity scores to gender is reported first, followed by comparison of scores to university type. Thus, the current assessment evaluates whether the academic leaders’ perceptions of administrative creativity vary by gender and university type. In this regard, two one-way ANOVAs were performed to compare the differences in the average perceptions of academic leaders. In the analysis, the three main ANOVA assumptions are ascertained, including independent observations for the dependent variable, equal variances for the independent variables across the groups, and normally distributed data for the dependent variable across the groups.
Administrative Creativity by Gender

The distribution of the academic leaders’ perceptions of academic female leaders’ administrative creativity is relatively normal for males and females.

The Levene statistic indicates unequal variances for academic female leaders administrative creativity among the perceptions of males and females, $p = .035$. The Welch’s F statistic is significant, $F(1, 326.07) = 132.29$, $p < .001$ (see Table 31). Therefore, the average of academic leaders’ perceptions are significantly different between males ($M = 4.20$, $SD = 0.75$) and females ($M = 5.03$, $SD = 0.62$). Consequently, female respondents believe more in women’s administrative creativity than their male counterparts.

Table 31

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>58.901</td>
<td>1</td>
<td>58.901</td>
<td>120.367</td>
</tr>
<tr>
<td>Within Groups</td>
<td>176.165</td>
<td>360</td>
<td>.489</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>235.066</td>
<td>361</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Administrative Creativity by University Type

The distribution of scores for academic female leaders’ administrative creativity is normal for both university types.

Since the homogeneity of variances assumption is violated, the Welch’s F-ratio is used. The results are not significant, $F(1, 209.97) = 1.42$, $p = .234$ (see Table 32). In this regard, the differences in the average perceptions of academic female leaders’ administrative creativity is not significant between established universities ($M = 4.55$, $SD = 0.68$) and emerging universities ($M = 4.44$, $SD = 0.99$).
Table 32

ANOVA of Administrative Creativity by University Type

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.110</td>
<td>1</td>
<td>1.110</td>
<td>1.708</td>
<td>.192</td>
</tr>
<tr>
<td>Within Groups</td>
<td>233.956</td>
<td>360</td>
<td>.650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>235.066</td>
<td>361</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results Related to the Research Question 4

Research question 4 asked: “What other characteristics influence their perceptions of psychological empowerment and administrative creativity?” In order to answer this question, two linear multiple regression analyses for PEI and ACI were performed to test the influence of the demographic characteristics, including gender, university type, occupation, academic rank, leadership experience, and administrative unit size, on the perceptions of male and female leaders of the level of psychological empowerment and administrative creativity for academic women leaders. The influence of significant and non-significant variables for both PE and AC were tested followed by removing the non-significant variables and keeping only the significant variables. A linear multiple regression analysis for PE is reported first followed by a linear multiple regression analysis for AC.

Influence of Significant Demographic Characteristics on PE

The current analysis attempts to measure the influence of the six main demographic variables, including, gender, university type, occupation, academic rank, leadership experience, and administrative unit size, on the perceptions of academic leaders of the academic women leaders’ psychological empowerment. Multiple regression analysis was performed to assess the association between the perceptions of
academic leaders’ psychological empowerment and the six demographic variables. In this case, the dependent variable is the average academic leaders’ perceptions of the level of psychological empowerment, which is measured by four main dimensions, including meaning, competence, self-determination, and impact. Each of the dimensions consists of three items that are evaluated on a six-point Likert scale. Also, the demographic characteristics are the independent variables. All the independent variables are categorical but are treated as interval variables. The categorical independent variables, occupation (1=Dean, 2=Vice Dean, 3=Department Chair, and 4=Vice Department Chair) and rank (1=Professor, 2=Associate Professor, 3=Assistant Professor, and 4=Lecturer), are dummy coded, with the first categories being the reference categories. Prior to performing the main regression analysis, three assumptions of regression were examined; independence of observations, normality, and homoscedasticity were all examined.

**Regression Assumptions**

There were 377 randomly selected academic leaders in the study; hence, the independence of observations assumption was satisfied. As evident from a visual observation of Figure 4, the residual distribution is relatively normal.
Moreover, the residuals have constant variation, which indicates that the homoscedasticity assumption is satisfied. In particular, the scatterplot of predicted values and the regression residuals in Figure 5 demonstrates no distinct pattern in the distribution of residuals.
Summary Results

Various regression models are fitted and the nonsignificant predictors are excluded individually until all the remaining predictors are significant. The ultimate model based on the results of the regression analysis is Average Perception to Psychological Empowerment = 3.09 + 0.79 (Gender) – 0.56 (Vice Department Chair) + 0.14 (Leadership Experience). Moreover, the results indicate that the regression model is highly significant, F(3, 373)=33.45, p<.001. As indicated by the F-test, the three demographic variables are significantly influence the academic leaders’ perceptions of the psychological empowerment for academic women leaders. In addition, the demographic variables account for 21.2% of the variation in the perceptions of psychological empowerment (R² = .212). Table 33 presents the summarized regression results.

Table 33

<table>
<thead>
<tr>
<th>Summary for the Regression Model on the Perceptions of the Psychological Empowerment</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.09***</td>
<td>.16</td>
</tr>
<tr>
<td>Gender</td>
<td>.79***</td>
<td>.08</td>
</tr>
<tr>
<td>Vice Department Chair</td>
<td>-.56***</td>
<td>.10</td>
</tr>
<tr>
<td>Leadership Experience</td>
<td>.14**</td>
<td>.05</td>
</tr>
<tr>
<td>R²</td>
<td>.212</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>33.45***</td>
<td></td>
</tr>
</tbody>
</table>

Notes. **p < .05, ***p < .001

When assessed individually, only three variables have a significant influence on the perceptions of psychological empowerment for academic women leaders. Furthermore, the coefficient for gender is positive and significant, b₁=0.79, t=9.52, p<.001, which indicates that being a woman influences perceptions of women’s psychological
empowerment. In this case, the difference in the average perception of psychological empowerment between females and males is 0.79, with males having significantly lower average perception than females. The coefficient for Vice Department Chair is negative and significant ($b_2=-0.56, t=-5.57, p<.001$). This indicates that leaders who work in a position such as a Vice Department Chair have a lower average perception of women psychological empowerment than others who work as Dean, Vice Dean, and Department Chair. Further, the coefficient for leadership experience is positive and significant ($b_3=0.14, t=2.73, p<.05$), which indicates a positive influence of the leadership experience of academic leaders on the perceptions of the psychological empowerment for academic female leaders. According to the equation, for every unit increase in the number of years (leadership experience) the academic leaders’ perceptions of psychological empowerment for academic women leaders will increase by 0.14. Thus, there was a positive influence of leadership experience on the perceptions.

**Influence of Significant Demographic Characteristics on AC**

The current analysis seeks to assess the demographic characteristics, including gender, university type, occupation, academic rank, leadership experience, and administrative unit size that influence the perceptions of academic leaders of the administrative creativity for academic female leaders. In this regard, a multiple regression analysis was performed with the perceptions of administrative creativity as the dependent and the demographic characteristics as the independents variables. Before running the main regression analysis, the three assumptions (independence of observations, normality, and homoscedasticity) were all examined.
Regression Assumptions

The independence of observations assumption was satisfied since the sample of academic male and female leaders was random. A histogram of the regression residuals indicates a relatively normal distribution (see Figure 6). In this regard, the normality assumption is satisfied.

![Histogram](image)

*Figure 6.* Distribution of residuals for the regression on perceptions of administrative creativity

The model errors have a relatively constant variation (see Figure 7). Therefore, the homoscedasticity assumption is satisfied.
Summary Results

Based on the results of performing the multiple regression analysis the obtained model is the Perception of Administrative Creativity = 3.01 + 0.98 (Gender) – 0.17 (Type of University) + 0.32 (Department Chair) + 0.18 (Administrative Unit Size). According to the omnibus test, the model is highly significant, $F(4, 357) = 38.71$, $p < .001$. Collectively, all four demographic variables are significant in predicting the perceptions of the administrative creativity for academic women leaders. The model accounts for 30.3% of the variation in the academic leaders’ perceptions of administrative creativity ($R^2 = .303$). Table 34 shows the regression model results.

Figure 7. Residual scatterplot for the regression on perceptions of administrative creativity.
Table 34

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.01***</td>
<td>.21</td>
<td>.57</td>
</tr>
<tr>
<td>Gender (Male/Female)</td>
<td>.98***</td>
<td>.08</td>
<td>.57</td>
</tr>
<tr>
<td>Type of University</td>
<td>-.17*</td>
<td>.08</td>
<td>-.10</td>
</tr>
<tr>
<td>Department Chair</td>
<td>.32**</td>
<td>.09</td>
<td>.20</td>
</tr>
<tr>
<td>Administrative Unit Size (Number of staff</td>
<td>.18**</td>
<td>.05</td>
<td>.17</td>
</tr>
<tr>
<td>under your supervision)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>38.71***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. *p<.05, **p<.01, ***p<.001

An analysis of the individual model terms indicates four main predictors of the academic leaders’ perceptions of the administrative creativity for academic women leaders. The coefficient for gender, which indicates the average difference between males and females, is significant, $b_1=0.98$, $t=11.94$, $p<.001$, which indicates that being a woman influences perceptions of women’s administrative creativity. In this case, the difference in the average perception of administrative creativity between females and males is 0.98. Once again, males have lower average perception of administrative creativity than females. The coefficient for the type of university is significant, $b_2=-.17$, $t=-2.20$, $p<.05$. This means that the difference in the average perception on the administrative creativity for academic women leaders between male and female leaders in established universities and those in emerging universities is 0.17, with leaders from established universities having a lower average perception than those from emerging universities. The coefficient for Department Chair is positive and significant, $b_3=0.32$, $t=3.48$, $p<.01$. This indicates that leaders who work in a Department Chair position have significantly higher average perception of administrative creativity for academic female leaders than those who work
as Dean, Vice Dean, and Vice Department Chair. Further, the coefficient for administrative unit size is positive and significant, $b_d=0.18$, $t=3.38$, $p<.01$. Thus, there is a significant influence of administrative unit size (number of staff under your supervision) on the academic leaders’ perceptions to the administrative creativity for academic women leaders. According to the equation, an increase in the size of administrative unit leads to an increase in the perception of the administrative creativity for academic women leaders by 0.18.

**Results Related to the Research Question 5**

Research question 5 stated: To what extent do leaders’ senses of psychological empowerment for women leaders influence their administrative creativity? In order to answer this question, a linear multiple regression analysis was conducted to test the potential effects of the demographic characteristics, including gender, university type, occupation, academic rank, leadership experience, and administrative unit size as well as the psychological empowerment and all its dimensions on administrative creativity. The influence of significant and non-significant variables was tested followed by removing the non-significant variables and keeping only the significant variables.

**Influence of Significant Demographic Characteristics and the PE and all its dimensions on AC**

The current analysis assesses the extent to which the demographic variables (gender, university type, occupation, academic rank, leadership experience, and administrative unit size) and the academic leaders’ perceptions of psychological empowerment and its four dimensions (meaning, competence, self-determination, and impact) that influence the perceptions of administrative creativity for academic female
leaders. Multiple regression analysis was performed with the perceptions of administrative creativity as the dependent variable and the demographic variables and the different dimensions of psychological empowerment as the independent variables. All the predictors in the final model are significant. Also, the examination of all three assumptions which are independence of observations, normality, and homoscedasticity were all examined prior running the main regression analysis.

**Regression Assumptions**

The independent observations assumption was satisfied since the sample was randomly collected from different academic male and female leaders. Moreover, the analysis assumes that the residual distribution is normal or conforms to the bell-shaped distribution. Figure 8 is a histogram illustrating the residual distribution which is symmetric and conforms to the normal distribution. As a result, it can be concluded that the normality assumption is satisfied.

![Figure 8. Residual plot for the regression on perceptions of administrative creativity.](image)

**Histogram**

**Dependent Variable: Administrative Creativity**

- Mean = -0.81E-4
- Std. Dev. = 1.010
- N = 362
Additionally, the analysis assumes that the errors have a constant variation. This is assessed by plotting the errors against the predicted values (See Figure 22). A visual assessment of Figure 9 indicates no distinctive pattern in the scatterplot. Consequently, the homoscedasticity assumption is satisfied.

![Scatterplot](image)

*Figure 9. Residual scatterplot for the regression on the perceptions of administrative creativity.*

**Summary Results**

A multiple regression analysis was performed to assess the impact of the demographic characteristics, including gender, university type, occupation, academic rank, leadership experience, and administrative unit size as well as the psychological empowerment and all its dimensions on administrative creativity. The final model is

\[
\text{Perceptions of Administrative Creativity} = 0.797 + 0.38 \times \text{(Gender)} - 0.14 \times \text{(Type of University)} + 0.13 \times \text{(Meaning)} + 0.48 \times \text{(Competence)} + 0.096 \times \text{(Self-determination)}
\]

The omnibus test indicates that the model is highly significant, \(F(5, 356)=122.84, p<.001\). All
the predictors account for 63.3% of the variation in the perceptions of administrative creativity for academic female leaders ($R^2 = .633$). Table 35 presents the model results.

Table 35

| Model Summary for the Regression on the Perceptions of Administrative Creativity |
|-----------------------------------------------|------|------|
| B                              | SE   | β     |
| Constant                       | .797** | .21   |
| Gender (Male/Female)           | .38*** | .06   | .23  |
| Type of University             | -.14*  | .06   | -.08 |
| Meaning                        | .13**  | .04   | .11  |
| Competence                     | .48*** | .04   | .52  |
| Self-determination             | .096** | .03   | .13  |
| $R^2$                           | .096** | .633  |
| $F$                             |      | 122.84*** |

Notes. *$p < .05$, **$p < .01$, ***$p < .001$

Individual coefficient analysis indicates five significant predictors of the perceptions of administrative creativity for academic female leaders. The average perception of administrative creativity when controlling for the demographic variables and psychological empowerment dimensions is 0.797. The significant demographic predictors of the perceptions of administrative creativity include gender ($b_1=.38$, $t=6.19$, $p<.001$), and type of university ($b_2=-.14$, $t=-2.46$, $p=.014$). The coefficient of gender is significant ($b_1=.38$, $t=6.19$, $p<.001$), which indicates that being a woman influences perceptions of women’s administrative creativity. In this context, the average difference in perception of administrative creativity between males and females is 0.38; with males having lower average perception of administrative creativity than females. The coefficient of the type of university is significant ($b_2=-.14$, $t=-2.46$, $p=.014$). This implies that the difference in the average perception of administrative creativity between male
and female leaders in established universities and those in emerging universities is 0.14, with leaders in established universities having lower average perception than those in the emerging universities. The significant dimensions of psychological empowerment in the model include Meaning ($b_3=.13$, $t=2.94$, $p=.004$), Competence ($b_4=.48$, $t=11.25$, $p<.001$), and Self- determination ($b_5=.096$, $t=3.47$, $p=.001$). The coefficient for Meaning is positive and significant ($b_3=.13$, $t=2.94$, $p=.004$). Therefore, a unit increase in Meaning is associated with an increase in the perception of administrative creativity for academic female leaders by 0.13. Similarly, the coefficient for Competence is positive and significant, ($b_4=.48$, $t=11.25$, $p<.001$). This means that a unit increase in Competence results in an increase in the leaders’ perceptions of administrative creativity for academic female leaders by 0.48. Further, the coefficient for Self- determination is significant ($b_5=.096$, $t=3.47$, $p=.001$). According to the equation, a unit increase in Self- determination results in an increase in the perceptions of administrative creativity for academic female leaders by 0.096.

**Results of Separate Regression for Male and Female for Research Questions 4 & 5**

Since the significance in the combined model is driven primarily by gender, separate multiple regression analyses by gender were computed to evaluate the influence of the demographic characteristics on the PE and AC for academic female leaders from the perception of both male and female leaders.

**Regression Results Related to the Research Question 4**

Research question 4 asked: “What other characteristics influence their perceptions of psychological empowerment and administrative creativity?” In order to answer this
question, two separate multiple regression analyses by gender for PEI and ACI were performed to test the influence of the demographic characteristics, including gender, university type, occupation, academic rank, leadership experience, and administrative unit size, on the perceptions of male and female leaders separately regarding the level of psychological empowerment and administrative creativity for academic women leaders. A linear multiple regression analysis for PE is reported first followed by a linear multiple regression analysis for AC.

**Influence of Demographic Characteristics on PE**

Multiple regression analyses were computed to assess the demographic characteristics that influence the perceptions of the academic leaders of psychological empowerment for academic female leaders. A comparison of the models was performed between males and females. Prior to performing the regression analysis, three assumptions of regression were examined; independence of observations, normality, and homoscedasticity.

**Regression Assumptions**

Based on the random sample in the study the independence of observations assumption was satisfied. Additionally, from the visual observation, the residual distribution of the models for males and females is relatively normal (as shown in Figure 10 and Figure 11).
Figure 10. Histogram of residuals of model to predict males' psychological empowerment perceptions.

Figure 11. Histogram of residuals of model to predict females' psychological empowerment perceptions.
Furthermore, the residuals have constant variation of both models, which satisfies the homoscedasticity assumption (as shown in Figure 12 and Figure 13).

Figure 12. A scatterplot of residual variances for the male model.

Figure 13. A scatterplot of residual variances for the male model.
**Regression Results**

The model for male leaders is *Average Perception to Psychological Empowerment* = 3.88 + 0.04 (Type of University) – 0.02 (Vice Dean) – 0.17 (Department Chair) – 0.26 (Vice Department Chair) + 0.06 (Associate Professor) + 0.22 (Assistant Professor) + 0.008 (Lecturer) + 0.06 (Leadership Experience) + 0.03 (Administrative Unit Size). The model is not significant in predicting the psychological empowerment for academic female leaders from the perceptions of male leaders, \( F(9, 224)=0.91, p=.514 \). On the other hand, the model for academic female leaders is *Average Perception to Psychological Empowerment* = 4.45 + 0.12 (Type of University) – 0.06 (Vice Dean) + 0.03 (Department Chair) – 0.73 (Vice Department Chair) – 0.13 (Associate Professor) – 0.22 (Assistant Professor) + 0.17 (Lecturer) + 0.26 (Leadership Experience) + 0.04 (Administrative Unit Size). The model is significant in predicting the psychological empowerment for academic female leaders from the perceptions of females leaders, \( F(9, 133)=5.33, p<.001 \). Table 36 presents the summary results.
Table 36

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<td>$F$</td>
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Notes. *p < .05, **p<.01, ***p < .001

For the female model, the coefficient for Vice Department Chair is negative and significant, $b_4=-0.73$, $t=-2.21$, $p<.05$. This means that leaders who work in position such as a Vice Department Chair have a lower average perception of women psychological empowerment than others who work as Dean, Vice Dean, and Department Chair. Further, the coefficient for the leadership experience is positive and significant, $b_8=0.26$, $t=2.45$, $p<.05$. This indicates that leaders with more leadership experience have a higher average perception of women psychological empowerment. Additional factors such as the type of university, rank, and administrative unit size also play a role in shaping these perceptions.
According to the equation, an increase in the number of years by one year of the leadership experience results in an increase in the average of psychological empowerment for academic female leaders by 0.26 from the perception of academic female leaders.

**Influence of Demographic Characteristics on AC**

Multiple regression analysis was computed to determine the demographic characteristics that influence the administrative creativity perceptions of male and female academic leaders. Also, the examination of all three assumptions which are independence of observations, normality, and homoscedasticity were all tested prior performing the main regression analysis.

**Regression Assumptions**

The independence of observations assumption was satisfied since the sample of academic male and female leaders was randomly selected. Also, the regression residuals are normally distributed (as shown in Figure 14 and Figure 15).
Figure 14. Histogram of residuals of model to predict males' administrative creativity perceptions.

Figure 15. Histogram of residuals of model to predict females' administrative creativity perceptions.
The models errors have a relatively constant variation, which indicates that the homoscedasticity assumption is satisfied (as shown in Figure 16 and Figure 17).

**Scatterplot**

**Dependent Variable: Administrative Creativity**

**Male/Female: Male**

*Figure 16. Residual scatterplot of the regression on male administrative creativity perceptions.*

**Scatterplot**

**Dependent Variable: Administrative Creativity**

**Male/Female: Female**

*Figure 17. Residual scatterplot of the regression on female administrative creativity perceptions.*
Regression Results

The model for male leaders is \( \text{Average Administrative Creativity Perception} = 4.47 - 0.24 \text{(Type of University)} + 0.23 \text{(Vice Dean)} + 0.30 \text{(Department Chair)} - 0.12 \text{(Vice Department Chair)} - 0.08 \text{(Associate Professor)} - 0.05 \text{(Assistant Professor)} - 0.097 \text{(Lecturer)} - 0.12 \text{(leadership Experience)} + 0.08 \text{(Administrative Unit Size)} \). The model is significant, \( F(9, 216)=2.94, p<.05 \), and the demographic variables account for 10.9% of the variation in the administrative creativity perceptions. The model for females leaders is \( \text{Average Administrative Creativity Perception} = 4.92 + 0.05 \text{(Type of University)} - 0.07 \text{(Vice Dean)} + 0.05 \text{(Department Chair)} - 0.097 \text{(Vice Department Chair)} - 0.23 \text{(Associate Professor)} - 0.35 \text{(Assistant Professor)} - 0.42 \text{(Lecturer)} + 0.09 \text{(leadership Experience)} + 0.18 \text{(Administrative Unit Size)} \). The model is significant, \( F(9, 126)=2.39, p<.05 \), and the demographic variables account for 14.6% of the variation in the administrative creativity perceptions of females. Table 37 presents the model results.
Table 37

Results of Regressions on Administrative Creativity Perceptions for Males and Females

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<td>$R^2$</td>
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For females:

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<tr>
<td>$R^2$</td>
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Notes. *p < .05, **p<.01, ***p < .001

In both models, the constant is the only significant term. For males, the constant coefficient ($b_0=4.47$, $t=10.91, p<.001$) shows that the average perception of administrative creativity while controlling constant all the demographic variables is 4.47.

For females, the constant coefficient ($b_0=4.92$, $t=10.31, p<.001$) shows that the average
perception of administrative creativity while controlling constant all the demographic variables is 4.92.

**Regression Results Related to the Research Question 5**

A separate multiple regression by gender was computed to determine the demographic characteristics and the psychological empowerment dimensions that influence the administrative creativity perceptions of male and female academic leaders. Also, the examination of all three assumptions which are independence of observations, normality, and homoscedasticity were all examined prior running the main regression analysis.

**Regression Assumptions**

The independent observations assumption was satisfied since the sample was randomly collected. Histograms of the regression residuals indicate a relatively normal distribution (as shown in Figure 18 and Figure 19). Therefore, the normality assumption is satisfied.
Figure 18. Histogram of residuals of model for predicting males' administrative creativity perceptions.

Figure 19. Histogram of residuals of model for predicting females' administrative creativity perceptions.
The residuals have constant variation (as shown in Figure 20 and Figure 21). Consequently, the homoscedasticity assumption is satisfied.

**Figure 20.** Residual scatterplot of the model predicting male administrative creativity perceptions.

**Figure 21.** Residual scatterplot of the model predicting female administrative creativity perceptions.
Summary Results

The model for males leaders is \( \text{Average Administrative Creativity Perception} = 1.48 - 0.19 \text{ (Type of University)} + 0.17 \text{ (Vice Dean)} + 0.30 \text{ (Department Chair)} + 0.05 \text{ (Vice Department Chair)} - 0.01 \text{ (Associate Professor)} - 0.04 \text{ (Assistant Professor)} - 0.09 \text{ (Lecturer)} - 0.10 \text{ (Leadership Experience)} + 0.10 \text{ (Administrative Unit Size)} - 0.02 \text{ (Meaning)} + 0.46 \text{ (Competence)} + 0.18 \text{ (Self-determination)} + 0.05 \text{ (Impact)} \). The model is significant, \( F(13, 212)=19.68, p<.001 \), and explains 54.7\% of the variation in the administrative creativity perceptions of male academic leaders (\( R^2 = .547 \)). The model for females leaders is \( \text{Average Administrative Creativity Perception} = 1.07 + 0.03 \text{ (Type of University)} - 0.03 \text{ (Vice Dean)} - 0.12 \text{ (Department Chair)} - 0.04 \text{ (Vice Department Chair)} - 0.17 \text{ (Associate Professor)} - 0.17 \text{ (Assistant Professor)} - 0.29 \text{ (Lecturer)} + 0.02 \text{ (Leadership Experience)} + 0.06 \text{ (Administrative Unit Size)} + 0.31 \text{ (Meaning)} + 0.41 \text{ (Competence)} - 0.001 \text{ (Self-determination)} + 0.06 \text{ (Impact)} \). The model is significant, \( F(13, 122)=15.24, p<.001 \), and explains 61.9\% of the variation in the administrative creativity perceptions of female academic leaders (\( R^2 = .619 \)). Table 38 presents the regression summary.
Table 38

Results of Regression on the Administrative Creativity Perceptions of Males and Females

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Notes. *p < .05, **p < .01, ***p < .001

The significant demographic variables in the male leaders’ model are the type of university and position as Department Chair, while the significant dimensions are Competence, and Self- determination. The coefficient of the type of university is
significant, $b_1=-.19$, $t=-2.097$, $p<.05$. This implies that the difference in the average perception to administrative creativity between male leaders in established and emerging universities is 0.19. The coefficient of the Department Chair is positive and significant, $b_2=.30$, $t=2.16$, $p<.05$, which indicates that leaders who work as a Department Chair have higher average perception of administrative creativity for academic female leaders than those who work in other positions such as Dean, Vice Dean and Vice department Chair. The coefficient of the Competence is significant in predicting the male administrative creativity perceptions ($b_{11}=.46$, $t=7.98$, $p<.001$). In this case, a unit increase in Competence results in an increase in the administrative creativity perception of males leaders by 0.46. The coefficient of the Self-determination is also significant ($b_{12}=.18$, $t=3.07$, $p<.05$). A unit increase in Self-determination results in an increase in the administrative creativity perceptions of males leaders by 0.18.

The significant predictors in the female leaders’ model include Meaning and Competence. In this model, Meaning is a significant predictor of female leaders perceptions ($b_{10}=.31$, $t=4.60$, $p<.001$). Therefore, a unit increase in Meaning leads to an increase in the female administrative creativity perception by 0.31. Moreover, Competence is a significant predictor ($b_{11}=.41$, $t=5.99$, $p<.001$). This implies that a unit increase in Competence leads to an increase in the female administrative creativity perceptions by 0.41.

**Chapter IV Summary**

This chapter reported the significant findings of the study and answered the five research questions. A series of statistical tests were performed such as descriptive statistics and multiple regression analysis in order to determine relationships and infer the
influence. Overall, there were differences between men’s and women’s perceptions of psychological empowerment and administrative creativity for academic female leaders at Saudi universities with males having lower average perception than females. Even though there were differences in responses between established and emerging Saudi universities, they are not as large as the perception differences between genders. The analysis indicates five significant predictors of the perceptions of administrative creativity for academic female leaders. The significant demographic predictors include gender and type of university, while the significant dimensions of psychological empowerment include meaning, competence, and self-determination. The Multiple regression analysis revealed a high positive influence of psychological empowerment on administrative creativity. Consequently, administrative creativity is strongly affected by psychological empowerment for academic female leaders. Chapter V presents these findings and compares the results to what other research studies have found.
CHAPTER V
KEY FINDINGS AND DISCUSSION

The purpose of this study was to examine the impact of both male and female academic leaders’ sense of psychological empowerment on the level of administrative creativity for women leaders in Saudi universities. The focus of this chapter is to discuss the results of the study in relation to the literature reviewed in previous chapters. The decision to study psychological empowerment for academic female leaders and its relationship to their administrative creativity was based on researcher experiences as a faculty member and a student at both established and emerging universities as well as her observations and discussions with colleagues. The format of this chapter includes the findings related to women’s psychological empowerment, administrative creativity, and the impact of gender, type of institution, and demographics. A comparison of available research and recommendations for future research is also included.

Overview of Significant Findings

This study found that the level of psychological empowerment for academic female leaders at Saudi universities was moderate, while the level of administrative creativity they report was high. Moreover, there are five significant predictors of the perceptions of administrative creativity for academic female leaders. The significant demographic predictors include gender and type of university, while the significant dimensions of psychological empowerment in the study model include competence,
meaning, and self-determination, respectively. Overall, multiple regression analysis showed a high positive influence of psychological empowerment on perceptions of administrative creativity. This analysis concludes that administrative creativity is strongly affected by psychological empowerment for academic female leaders.

**Findings Related to the Perceptions of the Psychological Empowerment**

The findings from research question one were used to elucidate the level of psychological empowerment for academic women leaders at Saudi universities. These showed a moderate level for the total average mean for perceived psychological empowerment at 4.33 on a three point scales of (2, 67- 4, 33) (AL-Magableh & Otoum, 2014). This total average measures the four dimensions of psychological empowerment, which include meaning, competence, self-determination, and impact. The total mean for these dimensions ranges from 3.60 to 4.99. The highest dimension is Meaning, measuring 4.99, whereas the dimension of Impact ranks last with a mean of 3.60. This indicates women are more likely to feel their work is significant and valued than it is perceived to have an impact on their units.

There is a moderate overall mean for all four dimensions, which shows women are working in leadership in educational institutions in Saudi Arabia, yet lack significant leadership status and effectiveness. This level agrees with earlier research conducted on the relationship between empowerment and administrative creativity (AL-Magableh & Otoum, 2014; Algahtani, 2011; Al-Da'di, 2011). Similarly, other research that used the same variables is consistent. For instance, in an interview study regarding the empowerment of women, Belevander (2014) discovered that there is a strong lack of representation of women in major educational organizations throughout the United
States. She also found that their representation in major multinational organizations is equally deficient, corresponding with this current research.

Psychologically, academic women leaders at Saudi universities rate their duties as meaningful to them, showing they possess a strong relationship with their work. In other words, the meaning they give to and the competence they feel about their respective work might directly affect their strength in the administrative area. The low rating of the impact dimension indicates that the academic women leaders at Saudi universities feel they influence what occurs in their units less compared to what the job means to them and competence they feel.

Additional findings further demonstrate how the relationships of the four dimensions of psychological empowerment for academic women leaders at Saudi universities interact with each other and improves their leadership contributions. Their confidence highly corresponds with the meaning they place on what they produce. In other words, the more value they place on their duties, the more they feel they demonstrate competence in their respective divisions.

**Findings Related to the Perceptions of the Administrative Creativity**

The findings from question two assist in the interpretation of the level of administrative creativity felt by academic women leaders at Saudi universities. The results were as follows: the means for individual items within administrative creativity are between 3.39 and 5.18. The highest item, *I exhibit creativity on job when given the opportunities*, is 5.18, compared to *I am not afraid to take risk*, at 3.39. The cumulative mean of administrative creativity is 4.51, which demonstrates a high level. The range of 4.34-6 as based on the method of this research is considered as a high level (AL-
Magableh & Otoum, 2014). These results agree with the study by Al-Da'di (2011), who found that the level of administrative creativity for both male and female leaders from their perceptions at Umm Al-Qura University in Saudi Arabia was high. Likewise, the results are in accord with the research findings of Oliver and Ashley (2012) and Cerne, Jaklic, and Skerlavaj (2013), who found that the leaders who are afraid to take risks can still be innovative if they can conceive new ideas.

According to the results of this study, women leaders at Saudi universities can be more creative even if they fear taking risks, provided they have been given opportunities to express creativity. These findings correlate with AL- Magableh and Otoum (2014), whose findings assert that an employee’s level of creativity is determined by the amount of opportunities the organization allows, especially in the area of decision-making. This can be increased by expanding the delegation capability of the educational institution by offering employees opportunities to make decisions, providing more incentives to do so, and focusing on teamwork within the organization. Similarly, research on the “relationship between employee’s empowerment dimensions and creativity improvement in educational organizations” (Ghorbani & Ahmadi, 2011) finds a high correspondence between the level of employee’s empowerment and a high level of creativity.

**Findings Related to the Differences Based on Gender and University Type**

The research findings for question three were utilized to determine if there are statistically significant differences among the participants’ perspectives regarding the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities that can be attributed to gender and university type.
Overall, there were differences between men’s and women’s perceptions of psychological empowerment and administrative creativity for academic female leaders at Saudi universities, with women having higher average perceptions than men. There were differences in responses between established and emerging Saudi universities; however, they are not as large as the gender differences. In light of these findings, it is evident that the academic women leaders’ sense of psychological empowerment is higher than the male leaders’ perceptions of them.

Regarding the gender results, the current findings do not agree with Al-Da'di (2011), who found that there are no statistical differences that can be attributed to gender among academic leaders’ perspectives of leaders' empowerment at Umm Al-Qura University in Saudi Arabia. Also, it is not agree with AL- Magableh and Otoum (2014), who found that there are no statistical differences that can be attributed to gender among departments’ chairs in the College of Science and Arts at Najran University in Saudi Arabia. In particular, this study reports the average perceptions of all four dimensions of psychological empowerment were statistically different between male and female leaders in favor of female leaders. This might explain the low confidence that male leaders have for women’s leadership abilities in the areas of making decisions and taking required responsibility (Al-Lamky, 2007). Furthermore, academic women leaders in this study reported they feel strongly about the importance of their work, and that they have confidence in themselves and their functional abilities. However, there were statistical differences between the perceptions of male and female leaders about the administrative creativity for academic women leaders in favor of female leaders. Moreover, these results do not agree with Al-Da'di (2011), who found in studying only one university that there
are no statistical differences that can be attributed to the gender among academic leaders’ perspectives of leaders’ administrative creativity at Umm Al-Qura University in Saudi Arabia.

Regarding this study’s results, the university type matters somewhat and shows academic women leaders’ sense of psychological empowerment at emerging universities is higher than those at established universities. Specifically, however, the average perceptions of the dimensions of meaning and competence of psychological empowerment were not statistically different between established and emerging universities. Yet the dimensions of self-determination and impact were statistically different between these types of universities, with women at emerging universities reporting higher sense of empowerment. This might be explained by the fact that most emerging universities are newer to the two-tier university system in Saudi Arabia. Most, but not all of them, grew out of colleges in smaller communities that were administered originally in a completely different manner than established universities, where men managed all administrative activities. However, with the shifting university system, these colleges have been transferring to the university system that gives female leaders many powers than were available to them before. This may have given them a higher sense of psychological empowerment in comparison to their prior situation of not having had any empowerment; it may not in fact be as great as they report because they now have some empowerment where earlier they had none. In contrast, academic women leaders at the established universities, which have functioned in the country’s university system for a longer time, reported feeling less psychological empowerment than women leaders at emerging universities. This might be due to their longevity in the university system and
aspiration for more empowerment as well as their awareness of the importance of being
more independent and having a notable impact, especially in the administrative area.

The institutional findings of this research are aligned with the results of Algahtani
(2011), who found that there are statistical differences among participants' perspectives
of administrative empowerment and organizational security in Saudi Arabia, differences
that can be attributed to the type of organizations.

Also, regarding administrative creativity, there were no differences according to
the university type. These findings are not aligned with the results of Algahtani (2011),
who found that there are statistical differences among participants' perspectives of
administrative creativity at security organizations in Saudi Arabia that can be attributed to
the type of organization. According to the current findings, these differences may be due
to the fact that female leaders' reported beliefs are that they can be creative when they are
given the right opportunities at both established and emerging universities. Nonetheless,
the dominant perspective of skepticism among men still exists about the capability of
female leaders in the male-dominated Saudi universities of either type.

**Findings Related to the Influence of Significant
Demographic Characteristics on PE**

One objective of this analysis was to explore whether demographic variables—
genre, university type, occupation, academic rank, leadership experience, and
administrative unit size—affect perceptions regarding psychological empowerment for
female leaders at Saudi universities. The findings related to the influence of significant
demographic characteristics indicate only three variables (gender, being a Vice
Department Chair, and leadership experience) have a significant influence on the
perceptions of psychological empowerment for academic women leaders ($R^2 = .212; F(3, 373)=33.45, p<.001$). Thus, the demographic variables as a whole can explain some of the variance in perceptions of psychological empowerment. Specifically, 21.2% of said variability can be explained in this way. Therefore, this finding evidences that these three demographic variables influence the academic leaders’ perceptions regarding psychological empowerment.

Concerning distinct demographic variables, gender produces the highest level of effect on the perceptions of psychological empowerment ($b_1=0.79, t=9.52, p<.001$) such that being a woman leader in a higher education institution in Saudi Arabia predicts one’s perceptions. It is notable that male university leaders have significantly lower average perception than females. This finding indicates that the perceptions regarding psychological empowerment for academic female leaders are most greatly shaped by gender. It is crucial to note that this study finds that male leaders have a significantly lower average perception of psychological empowerment for academic female leaders than females do. It is not surprising that gender makes a significant difference in a male-dominated culture where women are newer to the workforce as a whole in Saudi Arabia. Since women are “late comers” to leadership in academia, this difference is an indicator that academic women leaders recognize the importance of and value of their work. Furthermore, this difference shows they believe that they have the required competencies to accomplish their assigned roles, but that their males colleagues do not recognize their work to the same level. Thus, this result of gender here can be aligned with the findings made by Al-Lamky (2007) and Alhajuj (2007), who found that empowering women in senior positions is affected by the stereotypical images drawn by their male counterparts.
Since the position of a Vice Department Chair is a level of leadership status at all Saudi universities that still does not entail the higher-level decision-making of a Department Chair, it has an impact on these perceptions ($b_2=-0.56$, $t=-5.57$, $p<.001$), though a negative impact, it means that participants in this position, whether female or male, perceive lower empowerment among women leaders. This may be explained in relation to the situation that the vast majority of Vice Department Chairs at Saudi universities are females and that for nearly all women leaders; this is the highest level of leadership status they have heretofore attained. This position as a “glass ceiling” may contribute to the negative impact on the perceptions of psychological empowerment for academic female leaders. Bevelander (2014) notes that women’s psychological empowerment has been impacted by the lack of women in academic leadership positions. It could also explain why there are slight differences in the perceptions of psychological empowerment between emerging and established universities, where female leaders at the established universities, which are older, have experienced the negative impact of this position for a longer time. The influence of gender may also affect this particular position in this study. It is also vital to note that occupation is determined by one’s education, which is the reason Johnson, Layne, and Terpheny (2009) argue for the necessity of women’s empowerment through educational programs. However, female academic leaders in Saudi Arabia are as highly educated as men from a credentials standpoint, some even more so than their male counterparts. Nonetheless, while the occupation education issue may not be in question here, it may indicate that educational leadership training programs within universities are necessary to change male perceptions of female leaders’ psychological empowerment and could have an impact on the future perceptions.
of males and the ultimate movement of more women beyond the “glass ceiling” of this position of Vice Department Chair. Therefore, these findings have demonstrated leadership experience, gender, and being a Vice Department Chair influence psychological empowerment and administrative creativity for academic female leaders, which speaks to allowing more women to access the necessary leadership roles.

Furthermore, the demographic variable of leadership experience is shown in this study to have an impact on perceptions regarding psychological empowerment for female academic leaders. According to the regression equation, for every unit increase of leadership experience, the perceptions regarding psychological empowerment for academic female leaders at Saudi universities will increase by 0.14. Thus, the greater the number of years of leadership experience, the higher the perceptions of psychological empowerment for academic female leaders. Since women leaders at all universities have less experience than men historically, the perceptions of empowerment they express related to the leadership demographic variable may be in relation to gaining experience that allows them to move up in status and position—at least until they reach the “ceiling” level of Vice Department Chair position, where the impact is negative. Until this point, the leadership experience and leadership position movement women academic leaders experience contributes to their perceptions of empowerment, which may contribute to their willingness to take risks that may also contribute to their feelings of empowerment.

It is clear from the results that psychological empowerment is shaped by leadership experience, gender, and, in particular, administrative roles. In combination, these variables for female leaders in academia lead to higher average perceptions of their psychological empowerment and administrative creativity than their male counterparts,
according to the study’s findings. Overall, this may be due to their lack of historical experience “moving up the ladder,” especially in the male-dominated culture of Saudi Arabia, whereas men may be expecting to “move up” as others have before them. Since the results demonstrate that the more years of leadership experience, the higher average perceptions of female leaders’ psychological empowerment and administrative creativity, this could be due to the cultural situation that most women leaders are still not as experienced as men overall in higher education. Therefore, these women leaders may value any experience itself, rather than value it only for moving up into higher level positions. As women leaders’ collective experience accumulates, they are noting that holding particular administrative roles impacts their perceptions of their own psychological empowerment and administrative creativity, especially regarding the positions of Department Chair and Vice Department Chair.

**Findings Related to the Influence of Significant Demographic Characteristics on AC**

An additional objective of the study was to determine how the demographic variables — gender, university type, occupation, academic rank, leadership experience, and administrative unit size — affect the perceptions of academic leaders regarding administrative creativity for academic female leaders at Saudi universities. The conclusions of multiple regression analysis demonstrate four significant demographic variables in predicting the perceptions of their administrative creativity ($R^2 = .303; F(4, 357)=38.71, p<.001$). The model explains 30.3% of the variance in level of perceptions. In examining these variables, there are four main predictors (gender, type of university, role of department Chair, and administrative unit size) which highly influence the
academic leaders’ perceptions regarding administrative creativity for academic female leaders.

When an analysis of individual variables was completed in current study, it again showed that gender is a significant influence on the perceptions of administrative creativity in particular that being a woman influences women’s perceptions of their own administrative creativity. Also, male leaders have significantly lower average perception of administrative creativity for academic female leaders than females. This is consistent with the findings on psychological empowerment, and would be expected. On the one hand, academic female leaders have a high confidence in their administrative creativity. Thus, the result of this study was consistent with the findings of (Al-Lamky, 2007) who found that despite the cultural perceptions and stereotypes, women in senior positions are highly confident and enthusiastic. Also, the regression analysis indicates that the type of university influences perceptions of administrative creativity for academic female leaders, with leaders from established universities having a lower average perception than those from emerging universities. This finding can be attributed to the long experience between male and female leaders at established universities, while those at emerging universities have not that long experience in leadership area. As shown by the statistics, administrative unit size has a direct effect in the leaders’ perceptions, such that as the size of the unite increases, perceptions of administrative creativity increase.

This analysis of female academic leaders’ administrative creativity can be condensed into the idea that academic leaders’ gender, type of university, administrative role, and administrative unit size can predict administrative creativity. Ghorbani and Ahmadi (2011) state that creativity is essential for people to come up with new ways to
solve challenges. One of the most important discoveries provided by the current study is that administrative unit size predicts perceptions of administrative creativity for academic female leaders. Specifically, there was a positive relationship between administrative unit size and the perception of the administrative creativity for academic female leaders. As a result of women leaders solving new problems, leaders must experience growth in their creativity to keep up with their expanding administrative duties.

The role as a Department Chair also predicts the perceptions of administrative creativity for academic female leaders. For example, the higher the occupation leaders possess, the lower the perceptions of administrative creativity for academic female leaders, which may be interpreted as deans' takeover of authorities and being afraid to lose them. According to Zhang and Bartol (2010), the most critical influencer of creativity is empowerment; an occupation must empower the person holding the position. Perhaps the reason that Department Chairs perceive higher administrative creativity for academic female leaders than do Deans, Vice Deans, and Vice Department Chairs is that most of the leaders who hold any of these positions are young, likely to have studied abroad, and tend to cooperate with their female colleagues. Hence, it is accurate to conclude the necessity of considering gender, type of university, administrative unit size, and role as Department Chair in developing administrative creativity for academic female leaders.

**Findings Related to the Relationship between Dependent and Independent Variables**

Another main objective of the analysis was to determine what combination of demographic and psychological empowerment variables best predict participants’
perceptions of administrative creativity for academic female leaders. The results of this multiple regression analysis show that perceptions regarding psychological empowerment strongly impact the perceptions of administrative creativity \( (R^2 = .633; F(5, 356)=122.84, p<.001) \). Three dimensions of psychological empowerment (meaning, competence, and self-determination) and the two demographic variables (gender and type of university) explain 63.3% of the variance in perceptions of administrative creativity. This positive influence of academic leaders’ perceptions regarding psychological empowerment and their perceptions of administrative creativity illustrates that psychological empowerment can make such creativity possible. The analysis of all demographic variables and each individual dimension of psychological empowerment indicates that there are five significant predictors of the perceptions of administrative creativity for academic female leaders as shown in Figure 22.

![Figure 22](image.png)

*Figure 22.* The regression model for the influence of the dependent variables on the independent variables.

The analysis of the demographic variables indicated that gender and type of university significantly predicted perceptions of the level of administrative creativity. In
this regard, the average difference in perception of administrative creativity between males and females is 0.38 in favor of females. Also, difference in the average perception of women’s administrative creativity between male and female leaders in established universities and those in emerging universities is 0.14; leaders in emerging universities have higher average perception than those in established universities. This finding can be attributed to the fact that most leaders at emerging universities are young and pursued their education abroad. Furthermore, being mostly young, they do not have longevity working with male colleagues in Saudi Arabia, as is more likely in established universities, which might temper their newfound expectations that they can have administrative creativity, all of which may positively impact their perception of women in general and females as colleagues and leaders.

The analysis of each individual dimensions in the final model showed the greatest predictor of creativity was competence ($b_4=.48, t=11.25, p<.001$). Having a positive coefficient, competence moves in the same direction as perceptions of administrative creativity. Increase in the dimension of meaning also results in a positive effect on perceptions. Yet, although meaning is significant and positive ($b_5=.13, t=2.94, p=.004$), it has a lower influence than does competence. While self-determination is significant and positive ($b_5=.096, t=3.47, p=.001$), it also has a considerably lower influence than competence and meaning. The other dimension, impact, was not significant, thereby not separately influencing perceptions of administrative creativity for academic female leaders. These findings illustrate that the most important factor in perceptions of administrative creativity is competence.
This analysis concludes that perceptions of administrative creativity are strongly affected by psychological empowerment. Several scholars have focused on this empowerment and its effect on creativity and innovation, both individually and corporately. Numerous researchers have found that especially psychological empowerment and creativity positively correlate (Zhang & Bartol, 2010; Knol & Linge, 2009). For instance, Çekmecelioğlu and Özbağ (2014) examine how the four dimensions of psychological empowerment affect individual creativity, finding that competence and meaning are positively associated with creativity. This concurs with the current study.

The findings are also correlative with the research on administrative creativity for academic women leaders at Saudi universities. Also, being afraid to take risks, and lack of creativity when presented with new opportunities in the job, have the effects on the academic leaders’ perception regarding academic women leaders’ administrative creativity at Saudi universities. Therefore, these aspects: creativity, empowerment, employee workplace feelings, competence, trust, and self-control are essential in higher education settings.

The findings of this study further affirm the conclusions of other researchers. They support Knol and Linge (2009), who noted that psychological empowerment leads to greater innovative behavior. Similarly, Cingöz and Kaplan (2015) concluded that psychological empowerment has an impact on employees’ creativity. It is important to note that the current results show a stronger influence of psychological empowerment and other demographic variables on administrative creativity than other studies do. Cingöz and Kaplan (2015) and Knol and van Linge (2009) reported that the variance in administrative creativity is attributable to psychological empowerment in their sample by
28.6% and 27.8%, respectively, while the current study found that 63.3% of the variance in administrative creativity is attributable to psychological empowerment. For example, the current results indicate that competence has the greatest role in influencing administrative creativity, while Cingöz and Kaplan (2015) found that self-determination has the greatest role in influencing innovative behavior. The differences between these analyses, as they are minor, can be ascribed to variations in the sample populations. Also, psychological empowerment is a perception-based concept—one person’s perception is often relative to the work experience acquired. The similarities, however, show that psychological empowerment has an overall positive influence on creativity.

**Findings of Separate Regression by Gender Related to the Relationship between Dependent and Independent Variables**

Since the significance in the combined model is driven completely by gender, a separate multiple regression analyses by gender was computed to evaluate the influence of the demographic characteristics on the psychological empowerment and administrative creativity for academic female leaders from the separate perception of both male and female leaders.

The results of separate multiple regression analysis show that other demographic variables, including university type, occupation, academic rank, leadership experience, and administrative unit size explain very little of the variance in psychological empowerment. While the data shows the perceptions of psychological empowerment for women is divided along gender lines, given what we know about women’s issues in other cultures in more recent history globally, it is not surprising that men’s perceptions of women differ from women’s perceptions of themselves. It might be attributed to the
culture being male-dominated (Al-Lamky, 2007). Women have not been in the workforce much until recently; long-standing gender stereotypes linger from previous generations—men’s perceptions seem to be based on what they know and have experience with. Additionally, since men and women have little experience working together in this culture because of the separate gender sections and because there is little face-to-face interaction, a male’s perception might also be based on limited or no experience with women.

Regarding administrative creativity, the results of separate multiple regression analysis show that other demographic variables, including university type, occupation, academic rank, leadership experience, and administrative unit size explain do not add anything to the explanation of variance in administrative creativity when put in separate models. University type is a predictor for men’s perceptions of women’s administrative creativity, such that men in established universities saw women as more creative. The significance of men acknowledging the administrative creativity of women in the established universities seems to point to experience working with women in some manner. Established universities have had women in some capacity—as students and as faculty—since the 1960’s. Thus, women and men have had opportunities over this time period to work together. It seems, therefore, that men have more experience on which to base their perceptions—especially in a more open-minded culture such as higher education, where many women might be more qualified or educated than men are. This would seem to indicate that men are influenced more by their experience than by gender stereotypes they may have learned or that might be supported elsewhere in the culture, which is more conservative than an institution of higher learning. Men working in
established universities might also have more real opportunities to see and hear about women’s administrative creativity and the impact it might have on the women’s sections, thereby changing their perceptions as well. This is a dynamic worth further investigation.

Comparison of Current Findings with Previous Research

The findings of this research add to, affirm, and dispute some of the previous findings as illustrated in Table 39.

Table 39

<table>
<thead>
<tr>
<th>Psychological Empowerment</th>
<th>Al Ghamdi (2016) Findings</th>
<th>Previous Research Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The level of psychological empowerment for academic female leaders at Saudi universities is moderate from the perceptions of both male and female academic leaders.</td>
<td>• AL- Magableh &amp; Otoum (2014); and Al-Da'di (2011) found that the level of empowerment was moderate for academic leaders at one emerging university Najran University and one established university Umm-Al Qura University, respectively.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Spreitzer (1995) emphasizes the importance of psychological empowerment in the workplace, across the entire organizational levels.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Belevander’s (2014) found that gender inequality in business and finance exists because organizations in these fields do not empower women educationally and psychologically. Also, she assumes that effective female employees are described empowerment differently, compared to male employees. Muhammad, Shaheen, Naqvi &amp; Zehra’s (2012) research on women’s empowerment based on economic indexes identified the importance of women’s empowerment in the society and found that there is a positive relationship between the identified indexes and women’s empowerment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Al-Da'di (2011) found that there are no statistical differences that can be attributed to gender among academic leaders’ perspectives toward the level of academic leaders’ empowerment at Umm Al-Qura University in Saudi Arabia.</td>
</tr>
</tbody>
</table>
### Table 39—Continued

**Comparison of the Current Research with Previous Research**

<table>
<thead>
<tr>
<th>Al Ghamdi (2016) Findings</th>
<th>Previous Research Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administrative Creativity</strong></td>
<td><strong>Al Da’idi (2011) found that the level of administrative creativity was high for both male and female leaders from their perceptions at Umm Al-Qura University in Saudi Arabia.</strong></td>
</tr>
<tr>
<td>The level of administrative creativity for academic female leaders at Saudi universities is high from the perceptions of both male and female academic leaders.</td>
<td><strong>Ghorbanifar &amp; Ahmadi (2011) and Pieterse, Knippenberg, Michae'la, &amp; Dan (2010) suggest that psychological empowerment is not the only required moderation to creativity in the leadership area.</strong></td>
</tr>
<tr>
<td><strong>Affirms</strong></td>
<td><strong>Disputes</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Cingöz &amp; Kaplan (2015); Algahtani (2011); AL-Magableh &amp; Otoum (2014); Çekmecelioğlu &amp; Özbağ1 (2014); Alloah (2016); and Zhang &amp; Bartol (2010) found that the level of creativity was moderate based on their sample size.</strong></td>
</tr>
</tbody>
</table>

**The relationship between Psychological Empowerment & Administrative Creativity**

| There is a high influence of psychological empowerment on administrative creativity for academic female leaders at Saudi universities from the perceptions of both male and female academic leaders. | **Spreitzer (1995); Shousha (2011); Algahtani (2011); AL-Magableh & Otoum (2014); Alloah (2016); Cingöz & Kaplan (2015); Zhang & Bartol (2010); and Al-Da’idi (2011) found that there is a strong positive relationship between empowerment and creativity. Zhang & Bartol (2010) emphasize that empowerment is the most critical aspect that influences creativity.** |
| **Affirms** | **Disputes** |
| **Spreitzer (1995); Shousha (2011); Algahtani (2011); AL-Magableh & Otoum (2014); Alloah (2016); Cingöz & Kaplan (2015); Zhang & Bartol (2010); and Al-Da’idi (2011) found that there is a strong positive relationship between empowerment and creativity. Zhang & Bartol (2010) emphasize that empowerment is the most critical aspect that influences creativity.** | **Due to the fact that there are no studies on the relationship between psychological empowerment and administrative creativity for academic women leaders at Saudi universities, these findings add to the discussion about the influence of psychological empowerment or creativity.** |
| **Adds to** | **Cingöz and Kaplan (2015) who found that self-determination has the greatest role in influencing creativity, while the current study found that competence is the greatest role in influencing creativity.** |

| **The relationship between Psychological Empowerment & Administrative Creativity** |
| There is a high influence of psychological empowerment on administrative creativity for academic female leaders at Saudi universities from the perceptions of both male and female academic leaders. | **Cingöz and Kaplan (2015) who found that self-determination has the greatest role in influencing creativity, while the current study found that competence is the greatest role in influencing creativity.** |
| **Disputes** | **** |

171
Recommendations

The most important result of this study is that psychological empowerment has a significant impact on the administrative creativity of academic women leaders in Saudi universities. Since administrative creativity contributes to the ability to come up with new ideas for leadership practices and to problem-solve, and with the study findings that the extent of this occurring is average, it is worth considering recommendations to improve this situation for women leaders in higher education. The benefit is for them, their institutions, and the female students they teach and influence.

Given that the current study results match some previous studies, it is now crucial to consider how to enhance psychological empowerment and administrative creativity in higher education for female leaders in Saudi Arabia. The researcher recommends changing the prevailing attitudes and beliefs about academic women leaders at Saudi universities, in particular the lack of confidence male leaders have about female leaders’ abilities. The practical implications of this recommendation include implementing effective strategies and policies to promote the awareness among males of the importance of empowering academic female leaders, particularly in the leadership field. Also, assigning leadership tasks to academic female leaders in order to demonstrate their abilities, at least in the women's section, is a crucial step to alter the dominant views about women leaders.

A second recommendation is to acknowledge academic women leaders' rights in Saudi universities by higher educations’ officials to be fully responsible for the leadership of the women they teach; in doing so, female leaders would have the recognition and autonomy to lead the women’s sections. This acknowledgement would require autonomy
that would change the current policies of men running women’s sections and eliminate male bureaucracy that is currently the situation preventing women academic leaders from managing their sections without deference to levels of male leaders.

A third recommendation is to separate completely women's sections from men's sections at Saudi universities following the example of Princess Nourah bint Abdulrahman University; at Princess Nourah, the women have autonomy to manage the education for the women who attend this higher education institution, and they are fully responsible for the leadership of the women they teach. A policy change of this magnitude at all universities might take time and may never extend to all places of higher education in Saudi Arabia; however, this could be an effective strategy to maintain the separate educational areas in accordance with the traditions of the culture in Saudi Arabia and also allow Saudi female academic leadership to develop.

A fourth recommendation is to enhance job security for the academic women leaders so they have the freedom to take risks in order to carry out their administrative tasks to the fullest as well as to ensure that they have opportunities to make mistakes, learn something new from them, and apply that learning in their leadership roles. As the results indicated, academic women leaders are afraid to take risks. This may be due in part to male leaders running the women’s sections and, as the study indicates males have lower perceptions of female leaders’ empowerment, would further perceptual changes that women leaders are indeed competent. Universities should embrace and tailor leadership training programs and incentives, whether material or psychological, to include academic women leaders, meet their specific needs, and develop their creativity.
Finally, higher education officials at Saudi universities ought to capitalize on the existing high sense of self-confidence of academic women leaders at emerging universities by assigning complicated tasks to them, which will augment their psychological empowerment, and as the findings show from both female and male perspectives, lead to additional administrative creativity.

**Recommendations for Future Research**

Based on the findings of this study, there are various considerations for further studies. Specifically, utilization of a larger sample size across senior levels of leadership, such as presidents and vice presidents of Saudi universities is recommended. Using another criterion variable other than psychological empowerment, such as structural empowerment would be worthwhile in order to find out what other variables, influence academic female leaders’ administrative creativity; one such variable could be the impact of female leaders and how impact affects male leaders’ perceptions of administrative creativity. Other studies could examine the perspectives of other generations and make a comparison between different generations of faculty, students and leaders at Saudi universities. Additionally, conducting other approaches, such as qualitative and mixed methods, is another recommendation in order to make in-depth interviews with women leaders and find out from their point of view what other variables impact their creativity as leaders. A qualitative approach, or mixed method approach, may enlighten research and reveal new understanding about why and how gender differences prevail in an area of Saudi society that is the most progressive and where women leaders predominantly have opportunities to become leaders as they work with a growing population of women who want higher education degrees.
Age could turn out to be a critical demographic variable for future research. Adding age to the demographic variables would also be beneficial in order to examine the different perceptions about women’s creativity between different generations. Studying age, especially in relation to whether males and females studied abroad, may show that perceptions of women’s competence and creativity are already shifting within the younger generation with worldwide experience, as suggested by this study’s report of young women leaders in emerging universities. This could be important future research for the country as a whole in relation to gender because students who have studied abroad under grants from the Saudi government have been asked to bring back to the country the best practices from around the globe. Males and females getting degrees in other countries have acquired different gender experiences abroad than they might have at home. King Salman’s Saudi Vision 2030, announced earlier this year, is a country-wide effort to heighten citizens’ participation in all aspects of life to maintain Saudi Arabia as a progressive global power, and is an extension of the former king’s mandate for Saudi citizens to study abroad and bring back to the country the best the world has to offer in all areas of life. It is possible that with new Vision 2030, the impact of Saudi students learning in other countries may ultimately affect gender relations, organizational loyalty, job satisfaction, and organizational justice throughout all organizations in Saudi Arabia.

**Chapter V Summary**

This study found that perceptions of psychological empowerment with its four dimensions highly influence perceptions of administrative creativity for academic female leaders at Saudi universities, which garnering the need for both policy and practice changes and further research on this subject.
Based on these findings, it can be concluded that Saudi academic female leaders need to be more psychologically empowered to be creative in their administrative areas at both established and emerging universities. Academic female leaders at Saudi universities, especially those who have a high self-confidence and appreciate the value of their work, play a key role in preparing future generations of female students for successful higher education as well as to serve as role models for future female leaders. The results of the current study suggest that female leaders need more opportunities to show their creativity in administrative work. Thus, greater efforts must be taken by the officials in higher education to empower women leaders in their own sections and give them more opportunities to show their creativity, thereby raising the prestige of Saudi women leaders both locally and globally.
REFERENCES


AL- Magableh , M. Q., & Otoum, A. M. (2014). The administrative empowerment and its relationship with the innovative behavior among the head / coordinators of the
academic department at the faculty of science and arts, Sharurah – Najran University. *International Research in Education* 2(2), 83-106.


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180


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http://drum.lib.umd.edu/bitstream/1903/6777/umi-umd-4260.pdf?sequence=1&isAllowed=y


Appendix A

Survey
Please read this consent information before you begin the survey.

You are invited to participate in a research project entitled "The Empowerment of Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity" designed to explore the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities, as well as to examine the relationship between these variables. The study is being conducted by Dr. Andrea Beach and Azala Al Ghamdi from Western Michigan University, Department of Education Leadership, Research, and Technology. This research is being conducted as part of the dissertation requirements for Azala Al Ghamdi.

This survey is comprised of 30 multiple choice questions and will take approximately 10 minutes to complete. Your replies will be completely anonymous. This study is being implemented at six Saudi universities and the participants were randomly selected among 1223 leaders to participate in this study. When you begin the survey, you are consenting to participate in the study. If you do not agree to participate in this study simply ignore this invitation. If, after beginning the survey, you decide that you do not wish to continue, you may stop at any stage. You may not directly benefit from participating in this survey but the outcomes of this study will contribute to increasing the awareness of the level of empowerment for academic women leaders in Saudi universities.

If you have any question regarding the study, you may contact Dr. Andrea Beach at (269) 387-1725, Azala Al Ghamdi at (050) 003-5177, the Human Subjects Institutional Review Board (269) 387-8293 or the Vice President for Research (269) 387-8298.

This study was approved by the Western Michigan Human Subjects Institutional Review Board (HSIRB) on (approval date). Please do not participate in this study after (approval termination date).

Do you consent to participate in this survey?

☐ Yes

☐ No
جامعة غرب ميتشيجان
قسم القيادة التربوية والبحث والتكنولوجيا

من فضلك اقرأ معلومات الموافقة على المشاركة قبل البدء في الاستبيان

أنت مدعو للمشاركة في مشروع بحث بعنوان "تمكين القيادات الأكاديمية النسائية في الجامعات السعودية وعلاقته بالإبداع الإداري لديهن". هذا البحث صمم لاستكشاف مستوى التمكين النفسي والإبداع الإداري للقيادات الأكاديمية النسائية في الجامعات السعودية، فضلا عن دراسة العلاقة بين هذه المتغيرات. هذه الدراسة تجريها الدكتورة أندريا بيتش، وعزلاء الغامدي من جامعة غرب ميتشيجان، قسم القيادة التربوية والبحث والتكنولوجيا في الولايات المتحدة الأمريكية، وهي جزء من متطلبات نيل درجة الدكتوراة للطالبة عزلاء الغامدي.

هذه الاستبانة ضمت 30 سؤال على شكل اختيار من متعدد، وسوف تستغرق الإجابة عنها عشر دقائق تقريبًا. سوف يتم التعامل مع جميع إجاباتك بسرية تامة حيث يجري تنفيذ هذه الدراسة في ست جامعات سعودية وقد تم اختيار المشاركين بشكل عشوائي من بين 1223 قائد للمشاركة في هذه الدراسة. عندما تبدأ الإجابة على هذا الاستبيان فست توافق على المشاركة في هذه الدراسة. إذا كنت غير موافق على المشاركة في هذه الدراسة، فقد تتجاهل هذه الدعوة. كذلك عند رغبتك في عدم إكمال الاستبيان بعد بداية، يمكنك التوقف عند أي مرحلة وعدم المشاركة. قد لا تستفيد بشكل مباشر من المشاركة في هذا الاستبيان ولكن إلا أن نتائج هذه الدراسة سوف تسهم في زيادة الوعي بمستوى تمكين القيادات الأكاديمية النسائية في الجامعات السعودية.

في حالة وجود أي استفسار يتعلق بالدراسة، يمكنك التواصل مع الدكتورة/أندريا بيتش على الرقم 2270793922، أو عزلاء الغامدي على الرقم 050500035177، أو مجلس البحث العلمي بجامعة غرب ميتشيجان على الرقم 2693878298، أو نائب الرئيس للبحث على الرقم 2693878298.

هذه الدراسة موافقة على إجرائها من مجلس البحث العلمي بجامعة غرب ميتشيجان كما يوضح من تاريخ (تاريخ الموافقة). الرجاء عدم المشاركة في هذه الدراسة بعد (تاريخ إنتهاء الموافقة).

هل توافق على المشاركة في هذه الاستبيان؟

نعم ☑
لا ☐
**Survey of study entitled "The Empowerment for Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity"**

**Directions:**
The purpose of this study is to learn what you think about the level of psychological empowerment for academic women leaders at Saudi universities and its relationship to their administrative creativity. Please read and answer each question carefully. Remember, all of your responses will remain anonymous and confidential. Your name will not be associated with any of your answers.

---

**Part 1: Demographic Information**

<table>
<thead>
<tr>
<th>1. University Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established University.</td>
</tr>
<tr>
<td>Emerging University.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Occupation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean.</td>
</tr>
<tr>
<td>Vice Dean.</td>
</tr>
<tr>
<td>Department Chair.</td>
</tr>
<tr>
<td>Vice Department Chair.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Academic Rank:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor.</td>
</tr>
<tr>
<td>Associate Professor.</td>
</tr>
<tr>
<td>Assistant Professor.</td>
</tr>
<tr>
<td>Lecturer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Leadership Experience:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years.</td>
</tr>
<tr>
<td>From 5 years to 10 years.</td>
</tr>
<tr>
<td>More than 10 years.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Unit size (number of staff under your supervision):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50 employees.</td>
</tr>
<tr>
<td>From 50 to 100 employees.</td>
</tr>
</tbody>
</table>

---

**تعليمات:**
الغرض من هذه الدراسة هو معرفة رأيك حول مستوى التمكين النفسي للقيادة الأكاديمية النسائية في الجامعات السعودية وعلاقته بالإبداع الإداري لديهن. الرجاء قراءة سؤال بمجرد بدأه ومن ثم الإجابة عنه. تذكر، سيتم التعامل مع كافة الإجابات بسرية تامة، ولن يرتبط اسمك مع أي منها.

---

**الجزء 1: المعلومات الديموغرافية**

<table>
<thead>
<tr>
<th>1. نوع الجامعة:</th>
</tr>
</thead>
<tbody>
<tr>
<td>جامعة قديمة.</td>
</tr>
<tr>
<td>جامعة ناشئة.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. الوظيفة:</th>
</tr>
</thead>
<tbody>
<tr>
<td>عميد كلية.</td>
</tr>
<tr>
<td>وكيل/ة كلية.</td>
</tr>
<tr>
<td>رئيس قسم.</td>
</tr>
<tr>
<td>وكيل/ة رئيس قسم.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. الرتبة الأكاديمية:</th>
</tr>
</thead>
<tbody>
<tr>
<td>أستاذ.</td>
</tr>
<tr>
<td>أستاذ مشارك.</td>
</tr>
<tr>
<td>أستاذ مساعد.</td>
</tr>
<tr>
<td>محاضر.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. الخبرة القيادية:</th>
</tr>
</thead>
<tbody>
<tr>
<td>أقل من خمس سنوات.</td>
</tr>
<tr>
<td>من خمس إلى عشر سنوات.</td>
</tr>
<tr>
<td>أكثر من 10 سنوات.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. حجم الوحدة (عدد الموظفين تحت إشرافك):</th>
</tr>
</thead>
<tbody>
<tr>
<td>أقل من 50 موظف.</td>
</tr>
<tr>
<td>من 50 إلى 100 موظف.</td>
</tr>
</tbody>
</table>
More than 100 employees.

Part 2: Psychological Empowerment Items*

Please indicate the level of psychological empowerment you have in your university using the following scale:

- 1 = Strongly disagree;
- 2 = Disagree;
- 3 = Slightly disagree;
- 4 = Slightly agree;
- 5 = Agree;
- 6 = Strongly agree

Note: The psychological empowerment is defined as "a motivational construct manifested in four cognitions: meaning, competence, self-determination, and impact" (Spreitzer, 1995, p. 1444).

<table>
<thead>
<tr>
<th>No</th>
<th>Dimension / Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First: Dimension of Meaning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>The work I do is very important to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>The work I do is meaningful to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>My job activities are personally meaningful to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Second: Dimension of Competence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I am confident about my ability to do my job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>I am self-assured about my capabilities to perform my work activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>I have mastered the skills necessary for my job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Third: Dimension of Self-determination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I have significant autonomy in determining how I do my job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>I can decide on my own how to go about doing my work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>I have considerable opportunities for independence and freedom in how I do my job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Fourth: Dimension of Impact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>My impact on what happens in my department is great.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>I have a great deal of control over what happens in my department.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
I have significant influence over what happens in my department.

* Adapted from Spreitzer (1995)

Part 3: Administrative Creativity Items

Please indicate the level you think it is compatible with your administrative practices using the following scale:

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree;
4 = Slightly agree; 5 = Agree; 6 = Strongly agree

Note: The creativity is defined as "the production of novel and useful ideas in any domain" (Amabile et al., 1996, p.1155).

<table>
<thead>
<tr>
<th>No</th>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I suggest new ways to achieve goals or objectives.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>I come up with new and practical ideas to improve performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>I search out new technologies, processes, techniques, and/or product ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>I suggest new ways to increase quality.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>I am a good source of creative ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>I am not afraid to take risks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>I promote and champion ideas to others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>I exhibit creativity on the job when given the opportunities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>I develop adequate plans and schedules for the implantation of new ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>I often have new and innovative ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>I come up with creative solutions to problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>I often have a fresh approach to problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>I suggest new ways of performing work tasks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Mلاحظة: الإبداع يعرف بأنه "الإنتاج لكل ماهو جديد ومفيد من الأفكار في أي مجال" (Amabile et al., 1996, p.1155).
Thank you very much for participating in this study.

مع خالص الشكر والتقدير على المشاركة في هذه الدراسة
Appendix B

HSIRB Approval Letters
Date: February 23, 2016

To: Andrea Beach, Principal Investigator
    Azala Al Ghamdi, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 16-02-31

This letter will serve as confirmation that your research project titled “The Empowerment of Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity” has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under “Number of subjects you want to complete the study”). Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: February 22, 2017
Date: July 9, 2015

To: Andrea Beach, Principal Investigator
Azala Mohammad Al Ghanid, Student Investigator for dissertation

From: Julia Mays, Associate Director Research Compliance

Re: HSIRB Project “The Empowerment for Academic Women Leaders at Saudi Universities and its Relationship to Their Administrative Creativity”

This letter will serve as confirmation that the Western Michigan University Human Subjects Institutional Review Board (HSIRB) has received a summary of the proposed research student investigator Azala Mohammad Al Ghanid plans to conduct under the project titled “The Empowerment for Academic Women Leaders at Saudi Universities and its Relationship to Their Administrative Creativity.” This letter should serve as an assurance, to Saudi Arabia’s Minister of Higher Education and Saudi Arabian universities, that no human subject may be involved in this project until the HSIRB has received the full protocol, which must be reviewed and approved prior to implementation of the study. The HSIRB will provide regulatory oversight of the project until data has been collected and data analysis has been completed. Upon completion and closure of the study, all research data will be kept in a secure location for at least three (3) years after which time it can be destroyed.

Western Michigan University’s Federalwide Assurance (FWA) on file with Department of Health and Human Services, covers this activity:

Assurance Identification Number FWA00007042, the expiration date March 10, 2010
IRB Registration Number IRB00000234, Expires March 9, 2018

The Board wishes you success in the pursuit of your research goals.
Appendix C

Approvals from Six Saudi Universities
السلام عليكم ورحمة الله وبركاته...

تعدكم عمادة البحث العلمي أطليعة التحية والتقدير بجامعة جازان...

ونقدم لكم بالعمليات والتقدير على حسن تعاونكم المستمر ومساهمكم الفعال في دعم البحث العلمي والتي تهدف إلى تقديم خدمات متسمية ذات جودة عالية ومبنية على أسس علمية.

علنا نأمل تكرار سعادتك بالموافقة والتجوية من يلزم تسهيل مهمة...

مراء، محمد مطفي الفاسيدي
طلابية دراسات علماً- دكتوراه

والتي يقصد تجهيز رسالة الدكتوراه المعنوية بـ (تمكين القيادات الادارية التنظيمية في الجامعات السعودية) علاقات بالإعداد الإداري لليهود (وتهد ي إلى قياس مستوى التمكين ودرجة الإعداد الإداري لدى القيادات الأكاديمية التنظيمية في الجامعات السعودية) وجبرية تقييم القيادات التنظيمية والتنزه على مستوى المنظمات الكليات والكليات في الجامعة، أقلام من الله العلي القدير أن تؤمّهم هذه الدراسة في خدمة المجتمع المحلي بشكل خاص وعالميًا بشكل عام.

شكرًا موصولًا احترامكم... والله يحفظكم ويرعىكم...

عميد البحث العلمي

د/ رشيد بن محمد المسويسي
سعادة القلق الثقافي السعودي بمظافر خادم الحرمين الشريفين، بأكمله:

السلام عليك ورحمة الله وبركاته.

جامعة الملك عبد العزيز هي جامعة مقدسة، وتشير إلى الطلاب المقدسين من الوالدين الذين يحققون منطلقات العلمانية، حيث يتم من قبل جامعة القيادة للدراسات العليا، بالإضافة إلى الانتهاء من الدراسة العامة، ونتمنى للبضائعية ما يفتح المجال للتعليم العالي.

لجميع المعلومات المطلوبة، تفضل الاتصال بالإجراءات للتعليم العالي في جامعة الملك عبد العزيز، في هذا السياق. في هذه الجامعة لا تقدر على القيام بالإجراءات المطلوبة، علماً بأن ضوابط وليد الاستثناءات، تكريم الملك عبد العزيز، مرفوعة على الرأس التالي:


يمكن للمطالبة بالتزامات، ومع إعداد دفعتين العليا، للعلماء من خلال الاتصال التالي:

lygg.rug@kau.edu.sa.

وتنقلوا خاصة، بخصوص هذه:

وكيل الجامعة
للدراسات العليا والبحث العلمي

أ.د. عدنان بن حسن محمد زاهد

رقم الوارد العام: 1003

تاريخ: 

date:

الرقم: 

Reg: 

الموقع
بسم الله الرحمن الرحيم

سادة وسمايل جامعة الملك سعود للدراسات العليا والبحث العلمي
السلام عليكم ورحمة الله وبركاته وبعد...

أمدكم الله بالاثر ونوركم...

أفيد سمايلكم بعذر محاسرة في جامعة الباحة ومثبتة حالياً لدراسة المكتبة في جامعة غرب متشييج بالولايات المتحدة الأمريكية لتطوير القيادة التربوية. تعلم عالي ودائم إلى مرحلة أحد الوافقات

للتنقيح الجزء العملي من دراستي التي بدأها...

تهمني القيادة الأكاديمية النسائية في الجامعات السعودية وعلاقلته بالابداع الإداري ثمين...

The Relationship between Their Empowerment for Academic Women Leaders at Saudi Universities and its Administrative Creativity...

وتهدف الدراسة إلى قياس مستوى التمكين، ودرجة الإبداع الإداري لدى القيادة الأكاديمية النسائية في الجامعات السعودية من وجهة نظر القيادة الأكاديمية الجرمانية والنسائية. (تفصيلية، وسمايل/بذاع، رئيس قسم، وسمايل/ذاع، رئيس قسم)، مما تهدف الدراسة إلى الكشف عن العلاقة بين التمكين النسائي والإبداع الإداري وتأثير بعض التغييرات الإدارية...

عليه القدم لسمايلكم يطلب الحصول على خطاب موافقة إجراء الدراسة في جامعة الملك فهد...

جامعة غرب متشييج، ويذهني لي الس<size=m in>ب</size=m> في إصلح مطالبات التطبيق.

سرفق سمايلكم خطاب الشرفة على الدراسة، بالإضافة إلى الموافقة من مجلس البحث العلمي في جامعة غرب متشييج على دراسة الموضوع، جنبًا إلى جنب مع أدوات الدراسة وخطاب القسم المختص في جامعة الباحة بالإشراف على خلال فترة تطبيق الدراسة.

وتفضلوا بقبول فائق التحية والتقدير...

مقدمة

الباحثة: عزاء بنت محمد مطلق العامدي
جامعة غرب متشييج - كلية التربية
قسم القيادة التربوية والبحث والتنمية
0556677684 & 016146322772
Szalamohammad.alghamdi@wmich.edu

King Saud University:
Rm. 36943/36944
Date: 1/12/1330

Thank you

signatures
إلى من يهم الأمر
السلام عليكم ورحمة الله وبركاته
اما بعد;
تندعم وطاعتك، الجامعة للدراسات العليا والبحث العلمي على أعماق قلبنا، ونستقبل من القلب المقدم من المحاضرة بجامعـة الباحة - عزاء بن محمد مطلق الفاعلي - ونتحبّم في تطبيق أداة دراستها العلمية (الاستبانة) والتي تسمى "شخكات القيادة الأكاديمية والنسائية في الجامعات السعودية" وعلاقتها بالإياد الإدارة لدى، وذلك من خلال تطبيقها على القيادة الأكاديمية والنسائية والمختلفات الجامعية.
فعملية نفديكم بها لا منع لدينا من التعاون مع الباحث، وتسهيل مهمتها، تعريف أداة دراستها العلمية.

ول تقديرا خالص التحية والتقدير

وعضو الجامعة
للدراسات العليا والبحث العلمي

د. كامر بن حمدان الحربي

1436
السلام عليكم ورحمة الله وبركاته...

تهنيئكم بتحقيق البحث العلمي في جامعة تبوك، أطيب تحرفاً وتقديراً، وتشير إلى الطلب المقدمن من المحاضرة الباحثة، إطار بناء محمد مطلق الغامدي، المتخصص حاليًاً في قسم الدراسات الاجتماعية بمدينة جامعتي جامعة نيويورك وعشرات الرسائل العلمية. 

تشجيع الفرصة لتطوير البحث العلمي في الجامعات السعودية وعلاقته بالإعداد الإداري.

نأمل من سعادتكم التطور ما ترون من نسبياً للتسهيل مهمة الباحثة حتى ينسى لها إحلال ملابس التطبيق.

وتحليلوا سعادتكم خاصاً تحيانيًا وتقديرًا.

عبيد الباحث العلمي

د. ماجد بن محمد الغامدي
السلام عليكم ورحمة الله وبركاته

ننظرًا إلى طلب الباحثة الطالبة/ عزلاء بنت محمد مطلق الغامدي، تطبيق استبانة للبحث بإدارة الموفرة، وهو بعنوان: "تمكين القيادة الأكاديمية النسائية في الجامعات السعودية وعلاقتها بالإداعة الإداري لديهن".

أمل من سعادتكم التكرم الإطلاع والموافقة والتوقيع بين يديكم نحو تسهيل مهمة الباحثة في تطبيق الاستبانة الخاصة بالبحث.

وتقبلوا سعادتكم فائق التحية والاحترام.

وكيل الجامعة
للدراسات العليا والبحث العلمي

د. سالم الزهراني

213
Appendix D

Letter to the Vice President for Graduate Studies and Scientific Research at the Six Saudi Universities
Dear vice president for graduate studies and scientific research at ..... University,

Currently, I am doing my Ph.D. dissertation entitled "The Empowerment for Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity". This study designed to explore the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities and to examine the relationship between these variables. This study was approved previously by your university (attached a copy of the approval).

I am looking forward to your support by sending my survey to all males and females leaders via email and encouraging them to participate in this study. I know you are highly busy as well as all males and females leaders. However, I am confident that your support is a key factor in achieving the objectives of this study. Therefore it will be a valuable addition to the Saudi Academy library. Please ask all males and females leaders in your university to participate in this survey. If you have any questions, please feel free to contact me via email at azalamohammad.alghamdi@wmich.edu or by telephone at 0500035177.

Thank you very much for your time and assistance.

Please click on the link to the online survey:
http://www.surveymonkey.com/r/6D87KMC

Kind Regards,
Azala Al Ghmadi
Western Michigan University
azalamohammad.alghamdi@wmich.edu
0500035177.
سلام عليكم ورحمة الله وبركاته

السلام علىكم ورحمة الله وبركاته،

ستعادة وكيل جامعة... للدراسات العليا والبحث العلمي
حفظه الله

حاليًا، أقوم بتطبيق الجزء الميداني من أطروحة الدكتوراة التي عنوانها "تمكين القيادة الأكاديمية النسائية في الجامعات السعودية وعلاقته بالإبداع الإداري لديهن". هذه الدراسة صممت لإكتشاف مستوى التمكين النفسي والإبداع الإداري للقيادة النساء في الجامعات السعودية، واختبار العلاقة بين تلك المتغيرات. وحيث أن هذه الدراسة موافقة على إجرائها من قبل جامعةكم (مرفق صورة من الموافقة المسبقة)، فإنني أتطلع إلى دعمكم من خلال تحميل هذه الإيميل المحتوي على رابط استبانة الدراسة على جميع القيادة الأكاديمية النساء في جامعتكم الموقرة عبر البريد الإلكتروني وتحتيم على المشاركة في هذه الدراسة. إنني أعلم بقدر إشغالكم وكذلك الحال لجميع القيادات، ولكنني على ثقة بأن دعمكم عامل أساسي في تحقيق هذه الدراسة لأهدافها وبالتالي سوف تكون إضافة قيمة للمكتبة الأكاديمية السعودية.

وفي حال وجود أي استفسار فلا تترددوا بالتواصل معي على الجوال رقم 0500035177 أو بواسطة الايميل التالي azalamohammad.alghamdi@wmich.edu

مع خالص الشكر والتقدير

http://www.surveymonkey.com/r/6D87KMC

الرجاء الضغط على رابط الاستبانة الإلكتروني

عزاء محمد الغامدي
جامعة وستيرن ميشيغان الغربية
azalamohammad.alghamdi@wmich.edu
0500035177
Appendix E

Letter to Deans
Dear Dean, at ..... College,

Currently, I am doing my Ph.D. dissertation entitled "The Empowerment for Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity". This study designed to explore the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities and to examine the relationship between these variables. This study was approved previously by your university (attached a copy of the approval).

I am looking forward to your support by sending my survey to all males and females leaders via email and encouraging them to participate in this study. I know you are highly busy as well as all males and females leaders. However, I am confident that your support is a key factor in achieving the objectives of this study. Therefore it will be a valuable addition to the Saudi Academy library. Please ask all males and females leaders in your university to participate in this survey. If you have any questions, please feel free to contact me via email at azalamohammad.alghamdi@wmich.edu or by telephone at 0500035177.

Thank you very much for your time and assistance.

Please click on the link to the online survey:
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Kind Regards,
Azala Al Ghmadi
Western Michigan University
azalamohammad.alghamdi@wmich.edu
0500035177.
سلام عليكم ورحمة الله وبركاته

حاليًا، أقوم بتطبيق الجزء الميداني من أطروحة الدكتوراة التي عنوانها "تمكين القيادات الأكاديمية النسائية في الجامعات السعودية وعلاقته بالإبداع الإداري لديهن." هذه الدراسة صممت لإكتشاف مستوى التمكين النفسي والإبداع الإداري للقيادات النسائية في الجامعات السعودية، واختبار العلاقة بين تلك المتغيرات. وحيث أن هذه الدراسة موافق على إجرائها من قبل جامعتكم (مرفق صورة من الموافقة المسبقة)، فإنني اتطلع إلى دعم سعادتكم من خلال تعميم هذا الإيميل المحتوي على رابط استبانة الدراسة على جميع القيادات النسائية في الجامعات السعودية، عبر البريد الإلكتروني وحثهم على المشاركة في هذه الدراسة. إنني أعلم بقدر إنشغالكم، ولكنني على ثقة بأن دعمكم عاملي أساسي في تحقيق هذه الدراسة لأهدافها وبالتالي سوف تكون إضافة قيمة للمكتبة الأكاديمية السعودية.

وفي حال وجود أي استفسار فلا تترددوا بالتواصل معي على الجوال رقم 0500035177 أو بواسطة الأيميل التالي

azalamohammad.alghamdi@wmich.edu

مع خالص الشكر والتقدير

http://www.surveymonkey.com/r/6D87KMC

الرجاء الضغط على رابط الاستبانة الإلكتروني

عزاء محمد الغامدي
جامعة وستيرن ميشيغان الغربية

azalamohammad.alghamdi@wmich.edu
0500035177

219
Appendix F

Letter to Male and Female Leaders
Dear Dean,
Dear Vice Dean,
Dear Chair,
Dear Vice Chair,

You are invited to participate in a research project entitled "The Empowerment for Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity". This study designed to explore the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities, as well as to examine the relationship between these variables. This study was approved previously by your university (attached a copy of the approval).

I know that you are highly busy. However, I hope you will take the time to participate in this study. This survey is comprised of 30 multiple choice questions and will take approximately 10 minutes or less to complete. Your responses will be completely anonymous.

If you have any questions, please feel free to contact me via email at azalamohammad.alghamdi@wmich.edu or by telephone at 0500035177.

Thank you very much for your time and assistance.

To participate, please click on the link to the online survey:
http://www.surveymonkey.com/r/6D87KMC

Kind Regards,
Azala Al Ghmadi
Western Michigan University
azalamohammad.alghamdi@wmich.edu.
0500035177.
السلام عليكم ورحمة الله وبركاته وبعد

هناك، أقوم بتطبيق الجزء الميداني من أطروحة الدكتوراة التي عنوانها "تمكين القيادات الأكاديمية النسائية في الجامعات السعودية وعلاقته بالإبداع الإداري لديهن". هذه الدراسة صممت لإكتشاف مستوى التمكين النفسي والإبداع الإداري للقيادات النسائية في الجامعات السعودية، وأختبار العلاقة بين تلك المتغيرات، حيث أن هذه الدراسة موافق على إجرائها من قبل جامعتكم (مرفق صورة من الموافقة المسبقة)، فإنني اتطلع إلى مشاركة سعادتكم في هذه الدورة.

أعلم أن حجم مشاغلكم فيه كثير، ولكن كلي رغبة أن تشارك في هذه الدراسة القليل من وقتكم الثمين، علماً بأن الاستبانة مكونة من 30 سؤال اختيار من متعدد وسوف تستغرق 10 دقائق أو أقل للإجابة عنها. وسوف يتم التعامل مع إجاباتكم بسرية تامة ولن تستخدم إلا لأغراض البحث.

وفي حال وجود أي استفسار فلا تترددوا بالتواصل معي على الجوال رقم 0500035177 أو بواسطة الأيميل التالي azalamohammad.alghamdi@wmich.edu

مع خالص الشكر والتقدير

http://www.surveymonkey.com/r/6D87KMC

للمشاركة، الرجاء الضغط على رابط الاستبانة الالكتروني

عزاء محمد الغامدي
جامعة وستيرن ميشيغان الغربية
azalamohammad.alghamdi@wmich.edu
0500035177
Appendix G

Reminder Letter to the Vice President for Graduate Studies and Scientific, Deans, and Male and Female Leaders
Dear vice president for graduate studies and scientific
Dear Dean,
Dear Vice Dean,
Dear Chair,
Dear Vice Chair,

Thank you for considering participating in this survey. This is a reminder that I am inviting you to participate in a research project entitled "The Empowerment for Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity". This study designed to explore the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities, as well as to examine the relationship between these variables. This study was approved previously by your university (attached a copy of the approval).

I know that you are highly busy. However, I hope you will take the time to participate in this study. This survey is comprised of 30 multiple choice questions and will take approximately 10 minutes or less to complete. Your responses will be completely anonymous.

If you have any questions, please feel free to contact me via email at azalamohammad.alghamdi@wmich.edu or by telephone at 0500035177.

Thank you very much for your time and assistance.

To participate, please click on the link to the online survey:
http://www.surveymonkey.com/r/6D87KMC

Kind Regards,
Azala Al Ghmadi
Western Michigan University
azalamohammad.alghamdi@wmich.edu,
0500035177.
Appendix H

Second Reminder Letter to the Vice President for Graduate Studies and Scientific, Deans, and Male and Female Leaders
Dear vice president for graduate studies and scientific  
Dear Dean,  
Dear Vice Dean,  
Dear Chair,  
Dear Vice Chair,  

Thank you for considering participating in this survey. This is a reminder that I am inviting you to participate in a research project entitled "The Empowerment for Academic Women Leaders at Saudi Universities and Its Relationship to Their Administrative Creativity". This study is designed to explore the level of psychological empowerment and administrative creativity for academic women leaders at Saudi universities, as well as to examine the relationship between these variables. This study was approved previously by your university (attached a copy of the approval).

I know that you are highly busy. However, I hope you will take the time to participate in this study. This survey is comprised of 30 multiple choice questions and will take approximately 10 minutes or less to complete. Your responses will be completely anonymous.

If you have any questions, please feel free to contact me via email at azalamohammad.alghamdi@wmich.edu or by telephone at 0500035177.

Thank you very much for your time and assistance.

To participate, please click on the link to the online survey:
http://www.surveymonkey.com/r/6D87KMC

Kind Regards,
Azala Al Ghmadi
Western Michigan University
azalamohammad.alghamdi@wmich.edu.
0500035177