JOB SATISFACTION FOR SAUDI FEMALE DEPARTMENT HEADS:
A COMPARATIVE STUDY BETWEEN KING SAUD UNIVERSITY
AND PRINCESS NOURA UNIVERSITY
By
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NAIMAH NASSER A ALHUMAIDHI

Submitted to the graduate degree program in Educational Leadership & Policy Studies
Department and the Graduate Faculty of the University of Kansas in partial fulfillment of the
requirements for the degree of Doctor of Philosophy.

________________________________
Chairperson, Dr. Susan Twombly

________________________________
Dr. Lisa Wolf-Wendel

________________________________
Dr. Kim Dongbin

________________________________
Dr. Suzanne Rice

________________________________
Dr. Charles Krider

________________________________
Dr. David Hansen

Date Defended: 01/30/2015
The Dissertation Committee for Naimah Nasser A. Alhumaidhi certifies that this is the approved version of the following dissertation:

JOB SATISFACTION FOR SAUDI FEMALE DEPARTMENT HEADS: A COMPARATIVE STUDY BETWEEN KING SAUD UNIVERSITY AND PRINCESS NOURA UNIVERSITY

________________________________
Chairperson, Dr. Susan Twombly

Date approved: 02/06/2015
ABSTRACT

Research has shown that job satisfaction plays an important role in productivity and organizational commitment, establishment of a positive work environment, reduction of work related stress, and employee retention or turnover. In the university setting, job satisfaction is particularly related to the retention of faculty, effective mutual cooperation among staff, quality of teaching, and efficiency of leadership. The purpose of this study was to measure the current level of job satisfaction for female department heads at King Saud University (a gender segregated university) and Princess Noura University (a women’s only university) in Saudi Arabia. A series of independent samples t-tests were used to examine differences in job satisfaction between the samples from these two universities, and multiple regression analysis was utilized to explore factors that contribute to female department heads’ job satisfaction in both universities. A qualitative study was also conducted by asking participants open-ended questions to seek insight into other possible factors affecting job satisfaction. No significant difference in overall job satisfaction was found between these two universities; but the pay level and the policy of the institutions were identified as two important factors contributing to overall job satisfaction. The implications of this study to educators and policymakers, the limitations of this study, and the directions for future research were discussed.
DEDICATION

To my father Nasser Alhumaidhi, my mother Hussah Alhumaidhi, my brothers and sisters, my nephews and nieces.
ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my advisor, Dr. Susan Twombly, for her constant support and guidance throughout my doctoral study. My acknowledgment goes to my committee members from the Department of Educational Leadership & Policy Studies, Dr. Dongbin Kim and Dr. Lisa Wolf-Wendel, for the valuable inputs and suggestions they provided during the course of my doctoral research. I am thankful to my committee members Dr. Charles Krider, Dr. Suzanne Rice and Dr. David Hansen for their thorough feedback and reviews on my dissertation. I would also like to acknowledge the University of Kansas, King Saud University and Princess Noura University. My sincere thanks to all the female department heads, at King Saud University and Princess Noura University, who responded to the survey questionnaire for this dissertation. My acknowledgment goes to Dr. Ahmed Fagehi for his valuable suggestions. I also acknowledge my best friend, Kathy Rauckman, for her continuous support. And finally, I would like to thank my family who endure this long process with me, always offering support, love and constant encouragement.
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CHAPTER ONE
INTRODUCTION

Much work has been done on the study of job satisfaction. Job satisfaction has been shown in studies to have positive effects on productivity and organizational commitment, and contributes to a positive work environment (Judge, Thoreson, Bono & Patton, 2001). Job satisfaction has also been shown to reduce the negative effects of work related stress, as well as absenteeism and employee turnover (Martin, 2006; Yousef, 2002). While there are numerous factors that affect job satisfaction, including personal characteristics such as employee age and gender, there is much evidence that the work environment is a vital factor for increasing job satisfaction (Kaiser, 2007; Smerek and Peterson, 2007). In particular, the effectiveness of leadership, relationships with colleagues and organizational policies have been implicated in job satisfaction (August & Waltman, 2004). Thus, it is in the best interests of any organization to understand the job satisfaction of its employees, not only to increase morale, but also to evaluate the effectiveness of policies and the quality of the work environment (Bozeman & Gaughan, 2011).

In the university setting, job satisfaction has been shown to contribute to the retention of faculty, and contribute to an environment of mutual cooperation among staff (August & Waltman, 2004; Bozeman & Gaughan, 2011). Studies have suggested that the job satisfaction of administrative staff and faculty members is related to the effectiveness of administrative leaders such as deans and department chairs, as well as the perceived quality of communication and support from the leadership (Bilimoria, Perry, Liang, Stoller, Higgins & Taylor, 2006; Bozeman & Gaughan, 2011).
Saudi Arabia is a very conservative society with respect to gender roles, culture and education, but it has come a long way since the 1950’s. After the opening of education to women in 1959, opportunities have continued to increase, much as they did for women in the United States (Bubshait, 2012). In recent years, the changes for women's education have come quickly, as the Saudi education system has attempted to adapt to ever-increasing numbers of women seeking higher education. Between 1981 and 2013 the number of females who received bachelor’s degrees in Saudi Arabia increased from 1,118 to 61,797, and the number of females enrolled in all higher education institutions increased from 16,079 in 1981 to 588,771 in 2013 (Ministry of Higher Education, 2014). It is clear that the position of women in Saudi Arabia has improved dramatically since the 1950s, but there is still significant room for improvement as women continue to strive towards having opportunities equal to those of men.

While the fact that women's education came late in Saudi Arabia is not so different from the situation in the US, there is one very important difference: In Saudi Arabia, women's education consists of separate, all-women schools. Today, although Saudi women have access to all levels of education, the system remains set apart from male education. This separation has a variety of effects in society, including reinforcing a stereotype that women are intellectually inferior and less able in the working world (Bubshait, 2012; Hamdan, 2005). It also has the effect of creating an all-women’s working environment in schools. Women serve as the teachers, principals, and administration of girls' schools. However, in higher education, a different dynamic has emerged. As private and public universities responded to increasing numbers of female students, many separate campuses for women opened, which remain under the control of the main, male-led university. Although this has started to change in recent years, in 1993, most women working at these women's colleges were only allowed to hold lower
administrative positions. Their work involved overseeing their department’s day-to-day operations, and included duties such as allocating staff and resources, but men held the majority of top-level administrative positions. Men in higher administrative roles were in charge of all the hiring, planning, and evaluating of staff. Additionally, the lack of face-to-face communication between men in higher positions and women in lower administrative positions\(^1\) contributed to uninformed decision-making, ineffective administration, and unfamiliarity with the issues and concerns of women’s colleges on the part of men in higher positions (Al-Shaman, 1993). This situation persists now, with most of the higher administrative positions in Saudi Arabian universities held by men (Bubshait, 2012; Mengash, 2001).

In 2008, a large number of colleges for women were brought together to form Princess Noura Bint Abdulrahman University, which was founded in 2008 in the capital city of Riyadh. It is the first women's university in Saudi Arabia, and is the only university to have a completely female administration, in addition to the all-female student body. It is located in the same city as King Saud University, which is a gender-segregated public institution with separate campuses and lectures for men and women, but one administration in which women and men work together under male senior leadership.

In 2001, Mengash completed a study about higher education in Saudi Arabia, in which she recommended the establishment of an independent Women's University where women would occupy all of the senior administrative positions. Princess Noura Bint Abdulrahman University is, in many ways, an answer to Mengash’s recommendations. Mengash concluded that according to her research, the establishment of an all-women university would benefit students, administrators and faculty. Students would benefit by having more personal interaction and

\(^{1}\) The male employees and female employees at the university work on different campuses. They communicate only on the phone or via emails. There is no face-to-face in person communication between them.
freedom of expression in all women classes, and would be more directly involved in learning activities. Female administrators and faculty would benefit by taking on the responsibility at top-level positions, thus learning the skills necessary to compete and succeed in today's global economy. It was suggested that improved communication would be possible between administrative leadership and other faculty and staff, without any male-female communication barrier (Mengash, 2001). As previous research has shown, improved communication and support in the university setting has been linked to higher job satisfaction (Mengash, 2001). Princess Noura University can be considered an extension of the single-sex educational environment in Saudi Arabia, in which men and women do not interact at all in educational institutions. It is possible that faculty and administrators might feel more comfortable while working in this environment, since it is similar to what they are accustomed to.

On the other hand, it is hypothesized that at King Saud, where female deputy department heads work directly with male department heads, women will feel a welcome departure from the single-sex education system. Perhaps female deputy department heads working alongside males will feel satisfaction through working in this more diverse environment. Through interacting with a broader sector of society, and taking on leadership roles in a predominantly-male university, it is possible that women will feel an increased sense of accomplishment from their work. It is also possible that the quality of male-female relationships among coworkers and university leadership will prove more satisfying to women than in the single-sex environment, as opposed to the predictions of Mengash. This study attempts to see how female department heads' job satisfaction as part of the all-female administration of Princess Noura University compares to female deputy department heads' job satisfaction as part of the largely male-dominated senior administration at King Saud University.
The Purpose of the Study

The purpose of this study is to measure the current level of job satisfaction for female department heads at King Saud University and Princess Noura University and to identify any differences in job satisfaction between the female department heads in those two universities. Job satisfaction was measured by surveys. The principle independent variable investigated is the environment: the gender-segregated King Saud University and the single-sex Princess Noura University.

The study examined job satisfaction by utilizing Herzburg’s Two-Factor Theory (1959). This theory suggests that both motivators and hygiene factors are essential for job satisfaction. Hygiene factors are, according to Herzburg’s thirteen dimensions of job satisfaction, University Policy, Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior, Management and Pay Satisfaction.

The study also looks at how the job satisfaction at the two universities differs with respect to the following dimensions of motivators and hygiene factors of job satisfaction. The hygiene factors must be maintained at an acceptable level in order to safeguard workers from dissatisfaction with work. They function to create a safe environment in which workers can properly concentrate and apply themselves to the job. The following motivators were examined: Achievement, Advancement, Work Itself, Recognition, Growth, Good Feelings about Organization and Responsibility. The Hygiene Factors that were examined are: University Policy, Relationship with coworkers, and Relationship with Supervisor, Work Security, Effective Senior Management and Pay Satisfaction.

According to Herzburg’s theory, these hygiene factors, coupled with the motivators Achievement, Advancement, Work Itself, Recognition, Growth, Good Feelings about
Organization, Responsibility (Recognition, Achievement, Growth, Responsibility and Job Challenge) contribute to job satisfaction. This study not only provides a general measure of job satisfaction levels across these thirteen dimensions, and in respect to several demographic variables, but also asks for feedback from female department heads in the form of an open-ended question, which can provide insight into other possible factors affecting job satisfaction.

The role of demographic variables were also investigated, including years of experience, marital status, age, and the graduation country where the PhD was received. Open-ended questions are included at the conclusion of the survey to help examine the attitudes of employees at both universities. The aim of the study is to build on the knowledge of the factors affecting job satisfaction among female department heads in these two environments, in order to better understand the challenges that women face there, and improve job satisfaction in the working environment.

**Significance of the Study**

With the recent gains for women's education in Saudi Arabia, it is important to understand the quality of the new opportunities available to women administrators, faculty and students. This study attempts to measure the job satisfaction of female department heads, who serve as leaders in their departments on the administrative side, as well as important members of the teaching faculty. The job satisfaction of female department heads was investigated in two distinct working environments; the gender-segregated King Saud University and the all-female Princess Noura University. Since job satisfaction has been shown to reflect quality in leadership, communication, and faculty retention, the results of this study provides important information to help improve the working environment for female department heads in both universities.
This study not only provides a general measure of job satisfaction levels across these thirteen dimensions, and in respect to several demographic variables, but also asks for feedback from female department heads in the form of an open-ended question, which provides insight into other possible factors affecting job satisfaction. Understanding the level of satisfaction that women experience in these different environments may provide important information as Saudi Arabia moves forward with educational reform for women. In Saudi Arabia, where educational reform is of utmost importance to the rapidly changing business environment, the results can be used to inform future policy and university formation. If women are shown to be happier in a certain university setting, the results can be used to make future decisions about how to structure women's education, in order to create an effective system that meets the needs of women. This research adds to the base of knowledge about job satisfaction levels of female department heads at the recently opened Princess Noura University. If a difference in job satisfaction is detected, then future research can be suggested to better understand the underlying causes of the difference, and pinpoint areas for improvement; as well as understand the specific causes for women being satisfied or not satisfied in both environments.

**Research Questions**

This study addressed four questions:

Q1: What are the levels of job satisfaction (overall as well as thirteen measures of job satisfaction) for female department heads at King Saud University and Princess Noura University? Are there significant differences between the female department heads from the two universities in terms of their overall job satisfaction as well as the thirteen measures of job satisfaction?
Q2: What specific dimensions of job satisfaction significantly contribute to the overall job satisfaction of female department heads in King Saud University and Princess Noura University, respectively, after controlling for the demographic variables?

Q3-1: Are there any unique effects of institutions on the overall job satisfaction of female department, when responses from both universities are combined, after controlling for the demographic variables and specific dimensions of job satisfaction variables?

Q3-2: Are there any unique effects of the specific dimensions of job satisfaction on the overall job satisfaction of female department heads, when responses from both universities are combined, after controlling for the demographic variables?

Q4: What other gender-related dimensions explain overall job satisfaction at Princess Noura University and King Saud University?

**Thirteen dimensions (scales) of job satisfaction**

For the purposes of this study, thirteen dimensions of job satisfaction were investigated and defined as follows:

*Achievement (Motivator)*: “This includes the personal satisfaction of completing a job, solving problems and seeing the results of one’s efforts.” (http://www.sacbusiness.org).

*Advancement (Motivator)*: “The actual change in upward status in the company. Increased opportunity changes with no increase in status are considered under responsibility.” (http://www.sacbusiness.org).

*Work Itself (Motivator)*: The actual content of the job and its positive or negative effect upon the employee whether the job is characterized as interesting or boring, varied or routine, creative or stultifying, excessively easy or excessively difficult, challenging or non-demanding.
**Recognition (Motivator):** “This is the recognition by others for a job well done or personal accomplishment.” (http://www.sacbusiness.org)

**Growth (Motivator):** “This includes the actual learning of new skills, with greater possibility of advancement within the current occupational specialty as well as personal.” (http://www.sacbusiness.org).

**Good Feelings about Organization (Motivator):** “This refers to the thoughts, feelings and opinions that the employee has about the organization for which they work, namely; positive feelings. Includes their trust and belief in the mission, vision and goals of the organization.” (http://www.sacbusiness.org).

**Responsibility (Motivator):** “This includes both the responsibility and authority in relation to the job. Responsibility refers to the employee’s control over his or her own job or being given the responsibility for the work of others. Gaps between responsibility and authority are considered under the company policies and administration factor.” (http://www.sacbusiness.org)

**University Policy (Hygiene):** “The feelings about the adequacy or inadequacy of company organization and management. This includes poor communications, lack of delegated authority, policies, procedures and rules.” (http://www.sacbusiness.org)

**Relationship with Coworkers (Hygiene):** “The relationships between the worker and his or her superiors, subordinates and peers. This includes both job related interactions and social interactions within the work environment.” (http://www.sacbusiness.org)

**Relationship with Supervisor (Hygiene):** “The competency or technical ability of the supervisor. This includes the supervisor’s willingness to teach or delegate authority, fairness and job knowledge.” (http://www.sacbusiness.org)
**Work Security (Hygiene):** “The employee’s job tenure and/or the company’s stability or instability – objective signs of the presence or absence of job security, not the feelings of security.” (http://www.sacbusiness.org)

**Effective Senior Management (Hygiene):** “The feelings about the adequacy or inadequacy of company organization and management. This includes poor communications, lack of delegated authority, policies, procedures and rules.” (http://www.sacbusiness.org)

**Pay Satisfaction (Hygiene):** This includes all forms of compensation and focuses on wage or salary increases or unfulfilled expectation of increases.

**Definition of Terms**

**Job Satisfaction:** Locke (1976) said that job satisfaction is a “pleasurable or positive emotional state resulting from an appraisal of one’s job or job experiences” (p. 1304).

**Department Heads and Deputy Department Heads:** Women holding the top position of a department of academic study, performing administrative duties in addition to teaching as members of the faculty. At Princess Noura University, all department heads are female, and holders of doctorate degrees. At King Saud University, female deputy department heads are in charge of the department at the female campus, and work with the male department heads who oversee the department at the male campus. All female deputy department heads at King Saud University are holders of doctorate degrees. The job descriptions and responsibilities of the fifty-five department heads at Princess Noura and sixty-one deputy department heads at King Saud are similar (Mengash, 2007).

**Gender-segregated Institution:** An institution of higher education that has separate campuses, professors, and administration for female and male students. In cases where female professors are not available for a subject, male professors deliver lectures through close-circuit televisions.
**Single-sex Institution:** An institution of higher education in which all members of the administrative staff, faculty, and students are of a single sex. Two such institutions exist in Saudi Arabia: Princess Noura University which is an all-female institution, and King Fahd University of Petroleum & Minerals, an all-male institution.

**Saudi Arabian Historical Context**

Before the establishment of the Directorate of Education in 1926, the educational opportunities for boys and girls in Saudi Arabia were limited to the Qu’ranic schools, known as “Kuttbas.” Girls and boys alike were taught to read and write, using mainly the Qu’ran. Formal education was introduced by the government in 1926, though the first schools were established in 1931. The mission of these schools was to supervise both private and public education for boys and to set policies and strategies for education. In 1953 an important development occurred in the establishment of the Ministry of Education, which replaced the Directorate of Education. A new era of education in Saudi Arabia began, but girls were still left out (Mengash, 2001).

Until 1959, girls’ access to education was limited to clergymen who taught them reading and writing free of charge, or to educated relatives who would tutor them. A few private schools were established, but these were only accessible to wealthy families who could afford to send their children (Al-Nuaim, 1999). However, in 1959, King Saud paved the way for the education of women, announcing his plan to open schools to teach girls the fundamentals of Islam and other sciences that are in agreement with religious beliefs, such as home economics and child care.

The actions of King Saud in 1959 were somewhat controversial because many considered women’s education to be a violation of religious principles, and many were afraid that modern education would produce undesirable effects on the religious and social values of Saudi Arabian
King Saud helped allay the people’s fears by appointing a committee of religious leaders who would be responsible for the schools for girls. In 1960 formal education for girls in Saudi Arabia was initiated with the establishment of an organization that is independent from the Ministry of Education, known as the General Presidency of Girls’ Education (GPGE) (Mengash, 2001).

Currently there are 25 public universities in Saudi Arabia, with Princess Noura Bint Abdulrahman University, with 34,601 women, being the only all-women institution, and King Fahd University of Petroleum and Minerals being the only all-male university among them. Nine private universities also exist, most of which are available to both men and women (Ministry of Higher Education of Saudi Arabia, 2013). Most universities that were originally established for men now have separate campuses for women. Often, women will watch the video of the same lectures given to their male counterparts. Both men and women professors teach on the female campuses, but only male professors are allowed to teach on the male campuses (Mengash, 2001).

Higher Education in Saudi Arabia

In 1998, the number of post-secondary colleges had reached 168, with over 300,000 graduates (Alkhazim 2003). Over the last several decades, Saudi Arabia has held one of the highest population growth rates in the world. Beginning in 1960, the country has experienced exponential growth. In 1960, the population jumped from 3,121,000 to 4,041,000, a 29.5% increase. By 1980, the population had grown to 9,801,000, a 69.8% rise. The recent statistics in March 2014 show that the estimated total population has increased to 29.65 million in the Kingdom of Saudi Arabia; and the population in Riyadh, the capital of Saudi Arabia and the largest city in the country, is about 7 million, which accounts for 24% of the population of the
whole country. (worldpopulationreview.com, 2014). In 2007, the minister of higher education announced the government's plan to open 11 new universities within three years. The universities would focus on applied sciences, and the minister stated that 80% of the students entering university in the 2006-07 school years chose to specialize in subjects that will be of use in the job market (El-Rashidi 2007). The higher-education ministry's budget reached $15 billion in 2007, more than doubling since 2004. Lack of sufficient preparation and job skills form a hindrance for young Saudis looking to enter the job market, and a large demand for improved teaching techniques, focus on research and more freedom in the university is present (Krieger 2007). Challenges seen by higher education include recruiting professors, balancing control between the universities and the centralized government, as well as cultural challenges. As Saudi Arabia seeks to further educate its populace and become more competitive on the global scale, cultures and traditions are being challenged.

Today, Saudi Arabia’s education system includes 25 public and 10 private universities, with more planned; some 25,000 schools; and a large number of colleges (i.e., 168) and other institutions. The system is open to all citizens, and provides students with free education, books and health services. In addition, students at the level of post-secondary receive stipends ranging from $220 - $280 per month (Alkhazim, 2003). The 25 high-capacity government universities are linked to the Ministry of Higher Education, but have a certain amount of autonomy in decision making. The 10 private universities all offer bachelor's degrees and 7 of them offer master's degrees.

The structure of higher education places the highest authority in the Supreme Council of Higher Education (SCHE), which is chaired by the Prime Minister (the King) and also counts the Minister of Higher Education, and the universities' rectors as members. The Ministry of Higher
Education was established in 1975 to be responsible for supervising, planning and coordinating the Kingdom’s requirements with regards to higher education. The SCHE is responsible for regulating higher education policies at the national level. One important accomplishment by the SCHE was the establishment of unified higher education regulations, which promote similar systems of employment, salary, promotion and other policies across the universities. The King appoints university presidents for terms of 4 years, and they are officially ranked as ministers in the government employment system. The Minister of Higher Education appoints the college or faculty deans in the universities for 2-year, renewable terms. The University Rector appoints heads of departments and academic committees, also for terms of 2 years (Ministry of Higher Education, 2012; Embassy, 2013).

**Administrative Structure in the Two Universities**

Princess Noura Bint Abdulrahman University and King Saud University are both well-respected, large universities in the city of Riyadh, capital of Saudi Arabia. In the year 2008, King Abdullah Bin Abdulaziz founded Princess Noura University, naming it after Princess Noura Bint Abdurrahman, sister of King Abdul Aziz (the first King in Saudi Arabia). It was formed by organizing many independent female colleges in the city of Riyadh into 23 faculties, later restructured into colleges within one university. The number of colleges increased rapidly to 34, spread across the Riyadh Region. This large increase resulted in 21 of the colleges being transferred to the supervision of King Saud University. The remaining colleges represented a broad range of fields of study including the sciences, nursing, home economics, education, computer sciences, and more. Princess Nora University now encompasses 15 colleges under its supervision. In the year 2009, there were 18,250 Bachelor’s students, 505 Master students and 272 doctoral students attending the university (Princess Noura University, 2012). By 2012, the
university grew dramatically, with a total of 34,601 undergraduates, in 15 schools. The schools included Computer and Information Sciences, Sciences, Business and Management, Education, Art and Design, Languages and Translation, Liberal Arts, Social Work, Arabic Language Teaching Institute, Nursing, Pharmacy, Health and Rehabilitation Sciences, Dentistry, and a community college. Students graduating in 2012 numbered 3,851, with 12,957 incoming students. This huge number of incoming students can be explained by the opening of Princess Noura's large new campus, which includes a hospital and medical school. The new campus rivals King Saud University in size, and it is apparent that the new Princess Noura University has gained popularity and esteem among Saudi women students (Ministry of Higher Education 2013).

The structure of Princess Noura University includes a University Council and University Rector, with numerous branches working under the Rector. These include a Consulting League, Consultant Supervisor of the Rector Office, University Council Secretariat, International Consulting and Health Council, Legal Administration, Directorate of Public Relations, Science and Technology Unit, International Audit Unit, Financial Controller, and Follow-up Administration. In addition, there are several vice-rectorates for: the University, Community Service and Environmental Department, Health Affairs, Graduate Studies and Scientific Research, Academic Affairs, and Studies & Development. Each of these vice-rectorates contains various colleges, offices and centers, and their respective deans and department heads (Princess Noura University, 2012).

Princess Noura University employs 648 faculty holding doctoral degrees, including Saudis and non-Saudis. In terms of the participants of this study, at Princess Noura University
the total number of female department heads accounts for 55 Saudi women, all holding doctorate degrees (Princess Noura University, 2013).

King Saud University was the first university established in Saudi Arabia, and is located in Riyadh. In 2012, the university had a total of 68,095 students, making it the largest university in Saudi Arabia. The university includes community colleges, women's centers, health colleges, humanities colleges and science colleges. In 2012, there were 36,374 male and 31,721 female students currently attending the university, with a total of 12,764 incoming students and 11,556 graduating. (Ministry of Higher Education, 2012). As the number of colleges and programs has continued to grow, six independent universities have been formed since 1998 out of the restructuring of King Saud programs with the goal of increasing effective management.

King Saud became the first Saudi University to admit female students in 1961 and in 1976 the Center for University Studies for Girls was approved and put into operation. The center employs female professors and also arranges for male professors to lecture via close-circuit TV (King Saud University, 2010). An increasing number of women enrolled caused the center to be divided into separate locations. In 2013 the main centers, the Center for Humanities at Oleisha and the Center for Sciences and Medical Colleges at Malaz were united in one center located close to the main campus. The total number of female students (31,721) is comparable in size to the number at Princess Noura University, although the number of incoming female students is considerably lower at 4,537 in 2012. The number of graduating female students in 2012 was 5,544, higher than Princess Noura University, which had a low number of graduates due to its status as a new university (Ministry of Higher Education, 2013).

The King Saud university is organized around a Rector who oversees the Vice Rectors and Presidents, including: Vice president for Educational and Academic Affairs, Vice Rectorate
for Knowledge Exchange and Technology Transfer, Vice President for Development and Follow-up, Vice Rector for Business Development, Vice Rector for Health Specializations, Vice Rectorate for Graduate Studies and Research, Vice President for Projects, Vice Rector for Female Student Affairs, among others. The colleges and their deanships work with various administrative departments, including Information and Statistics Management, Studies and Development Management, Developmental Planning Management, Accreditation Management, Follow-Up Management, and Academic Publishing (King Saud University, 2012).

The female leadership at King Saud University includes two deans, one at the women's medical campus, and one at the other women's campus. There are also 16 female vice-deans, one for each school open to women students. The number of female faculty teaching at King Saud University holding doctorate degrees is at 662. There are a total of 61 women working as deputy department heads. While Princess Noura University hires women with the title of department head, King Saud University designates these women as “deputy” department heads, since they are working under the male department head, who takes charge of the department for the men's campus. Despite the difference in position title, the responsibilities and job descriptions of department heads and deputy department heads are similar. For both positions, the scope of work is essentially to manage the functioning of the department and its Council Presidency and the formation of committees, and to assess the performance of faculty members. While Princess Noura University also has a female university president, at King Saud’s university there isn’t a female university president. This is because one president manages all campuses for men and women, and only men are allowed to fill this position. (King Saud University, 2013)
This chapter includes the purpose of the study, the significance of the study, the research questions, and thirteen dimensions of job satisfaction. The definition of the terms used in this study, the historical context of Saudi Arabia, the higher education in Saudi Arabia, and the administrative structure in King Saud University and Princess Noura University has been introduced. In the next chapter, a literature review on job satisfaction will be presented.
CHAPTER TWO
REVIEW OF LITERATURE

This chapter first provides an overview of the theoretical framework of the study. Next, it reviews the causes and impacts of job satisfaction, correlates of job satisfaction, and the effects of job satisfaction. Last, it presents the job satisfaction in higher education and job satisfaction among women in the Arabian countries.

Theoretical Framework for the Study

In conceptualizing job satisfaction, this study incorporates ideas from the two-factor theory developed by Herzberg’s theory, as well as Maslow's theory of hierarchy of needs. These two theories have had an extremely large influence on the study of job satisfaction, and they apply to the current study for several reasons. Much of the previous research to be reviewed in the study of job satisfaction uses these theories as a theoretical base. Thus, it is in line for this study to continue to use the same concepts that have traditionally been incorporated. Additionally, this study attempts to understand job satisfaction among populations of department heads in different working environments, and both of these theories provide a sufficiently broad scope through which to consider the factors that might affect job satisfaction in these contexts.

Herzberg’s theory assumes that people are motivated by the work itself, so that the completion of tasks and organizational goals satisfy the needs of workers, and that more interesting or challenging work content has the effect of increasing motivation (Herzberg, 1959). Herzberg based his theory on interviews he conducted with hundreds of engineers and accountants. By analyzing the themes that came up when asking participants about positive and negative experiences at work, Herzberg identified two distinct groups of factors which he believed influenced job satisfaction differently, the “motivators” and the “hygiene factors.”
theory is similar to Maslow's hierarchy of needs, with the main difference being that Herzberg specified two types of factors, with motivators being more related to satisfaction and hygiene factors being more likely to influence job dissatisfaction as cited in (Quick, 1985). The motivators include: achievement, recognition, the work itself, responsibility, advancement, and possibility of growth. According to Herzberg, these factors are motivating factors that will satisfy people and encourage them to work hard. Their absence will not necessarily lead to dissatisfaction, but a lack of satisfaction in one's work. Smerek and Perterson (2007) explain that this was a big departure from traditional thinking. They go on to explain that “the opposite of job satisfaction is not job dissatisfaction but, rather, no job satisfaction; and similarly, the opposite of job dissatisfaction is not job satisfaction, but no job dissatisfaction” (Smerek and Perterson, 2007, p.3). The hygiene factors include: technical supervision, interpersonal relations in the workplace, working conditions, policies in the workplace, job security, salary, status and personal life as cited in (Bess and Dee, 2008). Herzberg’s theory noted that resentful feelings towards the employer would be decreased to a neutral level as hygiene factors improve. Thus, these factors are necessary elements for workers to be happy, but Herzberg believed that only by improving the motivators, such as the work itself, could an employee reach a high level of job satisfaction.

When comparing Herzberg's theory to Maslow's hierarchy of needs, the basic physiological, safety, and love needs are comparable to hygiene factors, while the higher-level needs for esteem and self-actualization are similar to the motivators (Bess and Dee, 2008).

This study investigated two different working environments for female department heads, and how the possible differences in hygiene factors and motivators in these environments may lead to different levels of job satisfaction across the two groups. By investigating the dimensions of Achievement, Advancement, Work Itself, Recognition, Growth, Good Feelings about
Organization, Responsibility, University Policy, and Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior, Management and Pay Satisfaction, this study will gain insight into which hygiene factors need to be improved in both universities. Career affiliation contains items investigating satisfaction with the work itself, an important motivator. Additionally, the open-ended answer section of this study allowed for participants to specify any other aspects that are affecting job satisfaction in the two universities. While this study is based theoretically on the conceptions of job satisfaction elaborated by Herzberg’s theory and Maslow’s theory, more recent literature regarding job satisfaction across gender and in the university setting is also important. Also, it will be necessary to review literature more closely related to the unique situation in Saudi Arabia, to investigate any aspects of job satisfaction that may differ from western research.

The Causes and Impacts of Job Satisfaction

Job satisfaction is a multi-dimensional concept, representing the total satisfaction that the employee takes from his job. While different theories vary as to what factors cause job satisfaction, the Haidar and Bntalib study (2005) mentioned the following aspects of jobs and job sites: work content, earnings, working conditions, relations with colleagues, relations with supervisors, administrative policies, opportunities for career advancement, and job security, among others. Other factors that affect the job satisfaction of individuals deal with the personal details of those individuals. Age, gender, character, life experience, and expectations are among the possible causes and a complex mix of these factors leads to overall perceived job satisfaction. In the article Examining Herzberg’s Theory, Smerek and Peterson (2007) cite that the level of stress also impacts satisfaction. From the compilation of different studies presented in this source, there were studies that focused on faculty and those focused on administration. Overall,
the studies found that the characteristics that contributed to job satisfaction were different depending on the group being studied and that overall satisfaction is the product of a complex balance of many components (Smerek and Peterson, 2007).

**Correlates of Job Satisfaction**

**Age**

Factors that are innate to the individual also affect job satisfaction, and one well-documented correlation is with age. One of the studies noted a positive correlation between job satisfaction and age. “The results suggest that older employees are well-adjusted to their job and obtain more intrinsic rewards from it.” (Smerek and Peterson, 2007, p. 245). As Clark, Oswald and Warr (1996) investigated, age could have a more complicated relationship. Their large group study found that job satisfaction is U-shaped in relation to age. The effect showed the lowest value for job satisfaction at 31 years of age with no controls, and remained significant with a minimum value of 36 years old while controlling for approximately 80 variables. The effect was verified in both intrinsic job satisfaction and extrinsic (satisfaction in respect with salary and benefits), and the effect was particularly strong in full-time employees, and somewhat stronger in men as opposed to women. The researchers indicated that changes in expectation over time, as well as a decreased importance placed on how one's job compares to peers may be partially responsible for the effect. Because age has been noted as a significant variable in job satisfaction, this study also examined age and its correlation with job satisfaction.

**Marital Status**

In a study conducted by Al-Aameri (2000), marital status was shown to significantly affect job satisfaction and organizational commitment, with divorced women reporting higher levels and widowed women reporting lower levels. In another study, Weaver (1978) found that
single employees had lower job satisfaction levels than their married counterparts. Steiner and Truxillo (1987) also support the idea of a correlation between marital status and job satisfaction, stating that employees who greatly valued their work were more likely to be satisfied with their work, and were also more likely to be married. The same study found that there was a statistically significant relationship between job satisfaction and some other variables combined with marriage, such as married men under 30. As a result of this research, this study will look at marital-status.

*Years of Experience:* 

Klassen and Chiu in 2010 examined the influence of work experience on job satisfaction among elementary and secondary teachers. They found that self-efficacy, or job satisfaction increased for a number of years and then began to decrease. They found this to be true across three categories: classroom management, instructional strategies, and student engagement. In all areas, satisfaction increased for the first 23 years before beginning to decline. In the category of classroom management, job satisfaction increased by 76% from zero to 23 years of experience. In instructional strategies, job satisfaction increased by 88% from zero to 23 years. And in the category of student engagement, the increase in job satisfaction was 68% from zero to 23 years.

*Attitude & Environment:* 

Saari and Judge (2004) looked at employee attitudes and their causes, and reviewed several possible factors influencing job satisfaction. They reviewed research that indicates that disposition may play a role in job satisfaction, noting that a person's job satisfaction scores have been shown to remain steady over time, even after job changes.

The environment that individuals interact with also seems to have an effect on decisions regarding career path and job satisfaction. As McDowell, Singell and Stater (2006) investigated
the type of human capital investments received may play a significant role in helping university administrators make career decisions. These researchers found that economic PhD holders, who were in top tier programs, thus receiving more research-specific human capital, were less likely to enter into the field of administration later in life. Those who chose to become administrators were more often recipients of less research-specific human capital, and more general human capital. This research suggests that administrators, similar to managers, are cultivated through more general human capital, and that those who choose a career in administration as opposed to continuing a purely academic trajectory may have a broader range of talents and abilities, although perhaps lack the depth of knowledge that comes from more skill-specific human capital investment. Thus, career decisions and job satisfaction in part reflect the values that individuals develop throughout their educational career.

While environment, including location of education received is an important factor in job satisfaction outcomes, it is by no means a deciding factor. Professors educated in one culture may have expectations that are not met in the culture in which they teach. A study by Ball and Chick (2001) looked at early employment outcomes of home and foreign educated Malaysian graduates. Although certain factors, such as level of English proficiency, participation in extracurricular activities, and socioeconomic background correlated positively with foreign education, income levels and job satisfaction were not shown to have any relationship with location of study. Job satisfaction did, however, correlate with factors such as self-esteem, satisfaction with the university, and income. The researchers suggested that while the location of study may not be a deciding factor in job satisfaction outcomes, further investigation should be paid to how to improve the university experience and self-esteem of home graduates. The researchers also admitted that since the study only followed early outcomes, a longitudinal study...
would be useful in verifying future trends for home and foreign educated graduates. As a result of this research, the present study examined if an individual’s past environment within their doctoral-level of education impacted job-satisfaction in their new work-environment within King Saud and Princess Noura University.

**Gender and Job Satisfaction**

There is much data supporting the idea that women in general tend to report higher levels of job satisfaction than males. Clark (1996) conducted a study on a British population attempting to understand the gender gap in reported job satisfaction between women and men. His research asserted that identical men and women should be identically satisfied with work, and that job type, work values, and sample selection do not account for the differential. He further suggested that job expectation differences between men and women are at play, and that the disappearance of the gender satisfaction gap in young, highly educated professionals and those in male-dominated workplaces lends support to the hypothesis. The final assertion is that women's expectations for their work are generally lower, all other factors being equal. He attributes this to the historically poorer position that women have held in the labor market, and suggests that as the labor gains for women slow down as they approach equality, the gender gap in job satisfaction will disappear.

Kaiser (2007) expanded on the work of Clark (1996) to study the gender differences in job satisfaction across 14 countries in Europe. The research built on Clark's idea that the “gender-job satisfaction paradox” would lessen and disappear in countries with equal working opportunities for women, and theorized that the level of job satisfaction measured by women could be used as an indicator or the country's level of labor market modernization. Equal levels of job satisfaction across gender were theorized to show the level of “gender modernization” of
the labor market, which refers to the extent that equal conditions and equal opportunities exist for men and women (Kaiser, 2007). The appearance of higher female levels of satisfaction despite poorer observed working conditions would indicate an “adaptive response” in labor markets where women were still at a disadvantage. As for the levels of job satisfaction, in ten out of 14 countries studied women reported higher levels of job satisfaction (Kaiser, 2007). In Denmark and Finland, job satisfaction was not significantly different, which is in line with the hypothesis, since both countries have advanced daycare systems and a high level of equality across work opportunities. In the Netherlands and Portugal, women showed significantly lower levels of job satisfaction, which might indicate a big gap in working opportunities. In addition, nine countries showed that women in supervisory positions did not differ significantly, which supports previous research findings that the gender gap in satisfaction decreases in higher level jobs. In general, women reported higher levels of satisfaction than men in respect to job security, and lower levels in terms of work hours (Kaiser, 2007).

Bender, Donohue and Heywood (2005) came to a different conclusion when studying the underlying cause of the trend of women in higher positions having higher job satisfaction. They disputed the opinion of Clark (1996) that women's higher level of reported job satisfaction could be due to women's lower expectations for their job, and relative happiness compared to the unsuitable working conditions of the past. Instead, they argued that women's expectations would quickly adjust to the current situation, and that the high level of job satisfaction is related to other factors. Looking at job flexibility as the main variable in their experiment, they suggested that women value flexibility between work and home more than men, who tend to value higher pay more than women do. They also suggested that women “self-sort” into fields that offer more flexibility, citing data that women working in traditionally female-dominated fields such as
nursing and teaching tend to report higher levels of job satisfaction. By controlling for this variable of flexibility in work, the difference in job satisfaction between men and women was eliminated, supporting the hypothesis.

Scandura and Lankau (1997) did work examining the role that family-friendly policies play on job satisfaction in female and male managers, specifically looking at the effect of flexible hour programs. They found that the presence of family-friendly programs was significantly related to improved organizational commitment and job satisfaction in women, but not in men. These findings suggest that women value the presence of family-friendly programs and flexibility in their work more than males. Interestingly, job satisfaction and organizational commitment did not differ depending on whether the employees were using the flexible hour programs or not. The researchers theorized that the presence of the program, and not its direct effect on the individual, was important for women. This suggests that women may place more importance on the organization's readiness to support families, regardless of whether they are actually benefiting from the programs. This is important to this study because the flexibility in decision-making might be a fact impacting job satisfaction.

**Effects of Job Satisfaction**

Several studies have reviewed the effects of job satisfaction. Most recent research indicates that job satisfaction is related to improved job performance, and reduced job turnover and absenteeism. As job satisfaction also represents to a certain degree the quality of management, policy and communication in the workplace, it is an important indicator of the work environment (Frey and Stutzer, 2002; Judge, Thoreson, Bono, & Patton, 2001; Kosherod, 1995). On the other hand, dissatisfaction contributes to absenteeism, accidents at work, reduction in productivity and employee turnover. Dissatisfaction is linked to an increase in
complaints, the establishment of trade unions and in general contributes to an unhealthy work climate (Khadra, Bashir and Marwa, 1995)

Judge, Thoreson, Bono, & Patton (2001) reviewed the qualitative and quantitative work done on the relationship between job satisfaction and job performance in a meta-analysis. They reviewed the findings of Iaffaldano and Muchinsky (1985) that claimed an insignificant value of 0.17 to describe the correlation between job satisfaction and job performance and claimed that through correcting the limitations of that study, the true value can be taken as 0.30. They asserted that the connection is not negligible, and deserves further research. Furthermore, it was found that the correlation between job satisfaction and performance became stronger based on the complexity of the job. Similar jobs did not show as strong of a correlation, but as jobs became more complex, job satisfaction became a stronger indicator of performance, showing that job satisfaction may have an effect on motivation for cognitive tasks (Judge, Thoreson, Bono, & Patton, 2001).

On the other hand, there is a study that reported job satisfaction is also related to organizational commitment. Yousef (2002) expanded on the work examining relationships between job satisfaction and organizational commitment. Among a diverse group polled from the United Arab Emirates, high levels of role ambiguity as sources of stress were perceived, with lower levels of perceived role conflict. Results indicated that role conflict and role ambiguity negatively affect job satisfaction, in line with the hypotheses and previous research. High role ambiguity correlated with lower affective and normative commitment, however role conflict was not shown to have any correlation with organizational commitment. Job satisfaction was shown to have a mediating influence on the relationship between role ambiguity and organizational
commitment, indicating that employees who are happy with their jobs are not as negatively affected by role ambiguity.

A study conducted by Al-Aameri (2000) also provided evidence for the link between job satisfaction and organizational commitment, in a large selection of nurses working in hospitals in Riyadh city, Saudi Arabia. Females constituted 220 out of 294 participants, and several trends were identified, including a highly significant correlation between job satisfaction and organizational commitment. The strongest overall effect of demographic variables was age, with older nurses having higher job satisfaction and organizational commitment. Experience, on the other hand, correlated only with improved organizational commitment. Finally, nationality was shown to have some effect, with Arab nurses being significantly more committed to their positions than European nurses.

Job satisfaction may also buffer workers against the negative health effects associated with their work. Griffin, Hogan, Lambert, Tucker-Gail, & Baker (2010) investigated the possible effects of job satisfaction and other variables on burnout in correctional staff. Burnout was defined as including sensations of extreme exhaustion, depersonalization, and a sense of lack of accomplishment. In this study, job satisfaction was significantly and negatively related to exhaustion, and the sense of lack of accomplishment that indicates burnout. While job involvement and job stress were positively linked to burnout, organizational commitment was not observed to have any link to burnout. As this study suggests, high job satisfaction may help to prevent burnout, while low job satisfaction may serve as an important early warning sign. In addition, this research shows that satisfaction is important and worth studying.

Benefits of Job Satisfaction
Studies show that increased earnings and benefits such as health care and pension are associated with increased job satisfaction (Bender, 2006; Clark, 1996; Donohue & Heywood, 2005; Kaiser, 2007). These studies noted a difference across gender, with men placing more importance on the monetary benefits derived from work than women. Working hours are a more complicated matter; holders of part-time jobs often report less satisfaction than full-time workers. However, in the professional positions such as doctors and lawyers, increased hours are associated with lower reported job satisfaction (Clark 1996; Kaiser 2007). Good health, when reported independently, was associated with higher levels of job satisfaction (Bender et al 2005).

**Job Satisfaction in Higher Education**

Job satisfaction in relation to higher education has been examined by several studies, with some major trends identified. First of all, various studies have showed that more educated individuals report lower levels of job satisfaction (Bender & Heywood, 2006; Clark and Oswald, 1996). In addition, in studies of faculty, tenure is an important predictor of satisfaction (Bender & Heywood, 2006). Volkwein, Malik, and Napierski-Prancl (1998) find that perceptions of teamwork and interpersonal work stress are the best predictors of satisfaction in a higher education context.

As Bozeman and Gaughan (2011) investigated, the factors that affect faculty in the university setting differ somewhat from those in other industries and positions. In line with previous research on job satisfaction among university faculty, Bozeman and Gaughan found that male faculty members were somewhat more satisfied with their jobs than women, and that being a tenured faculty member was a significant predictor of higher job satisfaction. Similar to what is reported in other sectors, faculty that reported being paid “what one is worth” at the market value for their position correlated significantly with satisfaction. Although being married
was not a significant predictor of job satisfaction, it was found that colleagues' views of one's position were very strong predictors of job satisfaction. Specifically, the strongest predictor was having departmental colleagues recognize one's work. This suggests that as is the case in other sectors, feeling that one's work is respected by peers is important to job satisfaction. The study found no correlation with job satisfaction in relation to the amount of time that one must spend on grant writing, teaching, and research, which the researcher suggested may be due in part to the sample, which is made up largely of professors who spend a lot of time on research and grant writing. In addition, no correlation was found in respect to the degree to which faculty were involved in industrial activity.

While tenure has consistently been associated with job satisfaction, Wilson (2012) focused on the difficulties that professors face after making tenure, especially the increased work load and lack of support and time for completing research. Wilson reported data from a study by the Collaborative on Academic Careers in Higher Education at Harvard University, in which 13,510 tenured or tenure track professors from 56 colleges and universities took part. Associate professors scored significantly lower than professors of lower or higher rank in nine out of 11 questions regarding satisfaction with research. They also scored lower on five out of seven questions pertaining to service, including the amount of time they must spend and the support they receive to maintain other aspects of their work. These interesting findings indicate that tenure may have a more complicated effect on satisfaction, perhaps mirroring the U-shaped curve that has been documented in regards to job satisfaction and age.

Terpstra and Honoree (2004) investigated job satisfaction and pay satisfaction from a sample of 500 faculty members from over 100 four-year universities from all over the US. They found that there is no difference in job satisfaction across disciplines, however there are
differences in satisfaction with pay across disciplines, with Law and Business being most satisfied with pay. The generally higher rate of pay for these disciplines is probably due to external market forces. The researchers suggest that in order to reduce differences in satisfaction that arise from unequal pay, more weight should be given to “internal equity”, or the amount paid for similar job types and outputs, regardless of discipline. Geographical location and pay satisfaction also had a significant correlation with job satisfaction, likely due to the geographical differences in average pay. The researchers suggest that universities might try adjusting salary to the national average in lower pay regions as a way to decrease job satisfaction.

These results confirm previous research by Pfeffer and Langton (1993) in which increased wage dispersion correlated to decreased job satisfaction among a large sample of university and college faculty. Those with lower wages were more likely to report lower satisfaction. The negative effects on job satisfaction from wage dispersion were less significant for faculty with longer tenure, faculty in more developed scientific fields, and in situations where salary is based on experience and scholarly productivity.

Gender also plays a role in job satisfaction among university faculty. Bender and Heywood (2006) found that among faculty, non-academic women scientists were found to have generally higher job satisfaction than their male counterparts, women academic scientists were found to have less job satisfaction. This effect seemed to be due to differences in male’s and female’s values. While male faculty highly value salary and tenure, women place less importance on these factors. In addition, they confirmed previous research showing that one indicator of job satisfaction is the comparison of earnings with others in the same sector.

As Bilimoria, Perry, Liang, Stoller, Higgins and Taylor (2006) reported, the quality of administrative leadership, especially department chairs or college deans, has an impact on faculty
satisfaction. Administration has the ability to rearrange workloads, obtain access to academic and research resources, and also provide relational supports for faculty by acting as mentors and introducing professional connections. According to the study, while male and female faculty value both relational supports and access to academic resources, women place more importance on relational supports than men. The researchers recommend that university administrators should pay special attention to their female faculty members' perceived level of support, as well as focusing on improving the perception of access to academic resources of all faculty members.

August and Waltman (2004) found similar results when investigating the factors that influence women faculty members' level of job satisfaction. Environmental factors such as the atmosphere in the department, quality of relationships with students, a supportive relationship with the unit chair or administrator, and perceived influence within the department were all related with job satisfaction among women faculty. In addition, the perception of one's salary as being comparable to others in the department was also a predictor of satisfaction. The correlations were significant for both nontenured and tenured women, although somewhat stronger with tenured women.

In looking at Quality of Life (QOL) indicators, Blackburn et al found that job stress and QOL were highly correlated. The QOL studied are satisfaction related to life, satisfaction related to job, and health status. The researchers found that for both administrators and faculty, there were correlations between job stress and all QOL indicators. In additions, administrator job stress was positively correlated with supervisor dissatisfaction. This, however, was not the case for faculty, where there was no correlation between job stress and supervisor satisfaction. Blackburn, Horowitz, Edington, and Klos (1986).
There is evidence that in institutions of higher education, relations with supervisors seem to be related to perception of job satisfaction. Smerek and Peterson (2007) investigated Herzberg's theory of job satisfaction, to better understand what factors are essential in determining job satisfaction among non-academic employees in a US university. Herzberg's theory of job satisfaction predicts that excellent relations with supervision will not directly increase job satisfaction, although dissatisfaction may occur when there are problems with supervision. The theory was not upheld by the research done by Smerek and Peterson, however, "the work itself" was identified as the strongest indicator of job satisfaction, as Herzberg's theory predicts. In contrast with Herzberg's theory, effective supervisors and senior management were both significant predictors of high levels of job satisfaction. The study went on to show that in the university environment, female employees were generally more satisfied with their jobs, in every category except for salary. Minorities were less satisfied, especially in the categories of advancement, work itself, and relationships with co-workers. Age correlated positively with work itself and job satisfaction, although it correlated negatively with satisfaction with benefits and perception of professional growth opportunities.

**Job Satisfaction among Women in the Arabian Countries**

As this study looks at job satisfaction among female department heads in two Saudi universities, it is important to consider what factors might affect job satisfaction in this setting and with this population. As Bubshait (2012) concluded, Saudi women face a number of obstacles as they try to assume leadership positions at universities. While the number of female students has grown tremendously in the past 20 years, significantly outpacing the growth rate in the number of male students, the percentage of Saudi women in leadership positions remains small. Only 15% of university presidents, 16% of vice-presidents and 20% of deans and vice
deans are women, while women account for 62% of the student body (Bubshait 2012). Bubshait investigated the type of obstacles that women face, and found that cultural obstacles are most commonly faced, followed by organizational and finally personal obstacles. Important cultural obstacles include lack of confidence of senior management in female leaders, common belief in the weakness of female administrative skills, difficulty in dealing with male superiors, and unwillingness of women to accept leadership roles. As Hamdan (2005) discussed, the prevalence of these beliefs is no doubt influenced by the historical place of women in Saudi Arabia, and the conservative nature of the society, which in general discourages the open interaction between women and men outside of family and spousal interactions. It is important to keep these cultural differences in mind when comparing the factors that affect job satisfaction in Saudi Arabia and other parts of the world.

A study by Shallal (2013) investigating the factors that affect working women of the United Arab Emirates provides relevant data on the subject of job satisfaction in the Arab world. Some of the general trends differ somewhat from those observed in western research. While age and income positively correlated with job satisfaction, similar to previous research, in Shallal's study an increased level of education positively correlated with job satisfaction. This trend differs from previous research indicating that highly educated individuals have less job satisfaction. Perhaps this inconsistency of the findings regarding the relationship between education level and job satisfaction in different studies is due to the ways different studies define the variable “higher education.” The variable “higher education” often refers to masters and doctorate degrees in western countries; but in Shallal’s study, it refers to the completion of high school. Shallal also found that married women were significantly less happy with their job, possibly because of the stress involved in managing home life and work. Interestingly, more
“conservative” women were less satisfied with their jobs. Conservatism was evaluated based on a woman's willingness to interact with male co-workers, something traditionally unacceptable. Women who chose to work in all female environments, or preferred not to work with men were less satisfied, while more “flexible” women who did not mind working with men reported higher levels of job satisfaction. Finally it was reported that women who worked because they enjoyed the work, wanted to be more independent or wanted to participate in society reported higher levels of job satisfaction than those who were working out of need or to pass the time.

Al-Nefesah (2011) conducted a study at King Saud University assessing the relationship between perception of empowerment and job satisfaction among female administrative employees. A questionnaire was used to collect data from 569 female employees at King Saud University in Riyadh, and the results yielded a moderate but significant relationship between perception of empowerment and job satisfaction. Job satisfaction was moderate among subjects, and perception of empowerment was relatively high. These variables did not differ significantly as a function of work experience or salary, however they did improve with the level of academic qualification. Perception of empowerment also differed significantly with marriage status, with married individuals feeling more empowered; while job satisfaction did not. Age positively correlated with job satisfaction, but had no relation with perception of empowerment.

Al-Otaibi (2007) studied the differences in job satisfaction between female faculty members of the institution King Saud University and the private institution Prince Sultan University. The purpose of the study was to identify similarities and differences in the level of job satisfaction among faculty members of King Saud and Prince Sultan Universities in the areas of human relations, working conditions, salary, promotions, and administrative procedures. The study also looked at the relationship between job satisfaction and variables including academic
rank, years of experience, specialization and nationality, as well as proposals to increase job satisfaction. The results showed high levels of satisfaction for both universities, with 75% of the female faculty of King Saud, and 81.8% of those at Prince Sultan reporting that they were satisfied with their jobs. At King Saud, low levels of satisfaction were reported for salary, incentives and promotions, while at Prince Sultan the levels were relatively high. In terms of working conditions and administrative procedures, moderate levels were reported at King Saud, and high levels at Prince Sultan. The differences in total scores for the universities were statistically significant at the level of (0.01), with Prince Sultan University reporting higher job satisfaction.

There is also evidence that leadership style differences can be found across cultures. To understand possible job satisfaction differences in regards to relations with supervision, it is important to review leadership style trends found in Saudi Arabia. Mengash's (2007) study on leadership style differences across gender in King Saud University did not directly measure job satisfaction, but instead looked at important differences in leadership strategies between male department heads and female vice department heads. The study focused on departments in which both male department heads and female deputy department heads were present, excluding departments open only to male or female students. Data from 34 male department heads and 34 female deputy department heads were included, for a total of 68 participants. The study looked at two different leadership styles. The first style examined was “Power Over”, in which the leader is more concerned with the maintaining the structure, rules and regulations of the organization. The leader dictates jobs to other employees, and takes main responsibility for decision making, similar to the authoritarian style. The “Power With” style emphasizes good relationships with workers, and seeks to uphold the human dimension of the work place. The
leader acts as a collaborator with workers, allowing them to participate in decision-making. It was found that gender was a significant predictor of leadership style, with male department heads being significantly more likely to use the “Power With” leadership style. Female deputy department heads utilized both leadership styles, but were more likely to use the “power over” style. There was no significant difference in the leadership style of males and females due to the academic specialization, faculty member ranks, or work experience. Mengash went on to mention that these trends in leadership style differ from previous western research, in which male leaders prefer the “power over” style, and women tend to utilize “power with” style. (Mengash 2007). In looking at this research, it is important to recognize Princess Noura’s and King Saud’s leadership styles in analyzing the female department head’s job satisfaction. In analyzing these two universities and their leadership-style, it allows the researcher to see if a particular leadership-style affects job-satisfaction within female department heads.

**Summary**

The studies discussed in this review of literature indicate that job satisfaction correlates with age, years of experience, attitude and environment, and gender, in particular the level of job satisfaction among Arab women. They also address the causes and impacts of job satisfaction, the effects of job satisfaction, the benefits of job satisfaction, and the degree of job satisfaction in higher education. Based on the findings of these studies, the present research examined the same and similar variables, focusing on and comparing job satisfaction for Saudi female department heads in two Saudi Arabian public universities, King Saud University and Princess Noura University.
CHAPTER THREE
RESEARCH METHODS

The purpose of this chapter is to describe the methods and procedures that were used to accomplish the goals of this study. This study investigated the current level of job satisfaction for female department heads in different environments: the gender-segregated King Saud University and the single-sex Princess Noura University in Saudi Arabia. The problem examined is very important to Saudi Arabian educational reform, as these two environments of gender-segregated and single-sex universities differ considerably, and may pose unique advantages and challenges that affect job satisfaction among the female leadership. The principal variable investigated in respect to job satisfaction is the university environment, noting any differences in satisfaction between female department heads at King Saud University and Princess Noura University. The study looked at how job satisfaction among female department heads at the two universities differ with respect to the overall job satisfaction and the thirteen dimensions of job satisfaction: Achievement, Advancement, Work Itself, Recognition, Growth, Good Feelings about the Organization, Responsibility, University Policy, Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior, Management and Pay Satisfaction. The study also examined the possible influence of individual demographic variables including age, marital status (single, married, widowed, divorced), the graduation country where the PhD was received (Saudi Arabia vs. other countries), and years of experience. Finally, an open ended question was included asking the department heads to comment on any other factors that may be affecting their job satisfaction.

Princess Noura University, which is considered an extension of Saudi Arabia's single-sex system of education, may be a more comfortable working environment for women.
Communication barriers between the female department heads and male leadership that might exist at King Saud University may not be present in the single-sex environment, leading to improved working relations for females. Alternatively, the interaction between female department heads and male leadership at King Saud may present a unique, and stimulating work environment where communication and working relations are improved, resulting in higher job satisfaction. Investigating the levels of job satisfaction at both types of universities may help to expand the base of knowledge of how the structure of educational institutions impacts job satisfaction among female department heads in Saudi Arabia.

**Participant Sample**

The survey was given to 61 female deputy department heads at King Saud University. Forty-nine out of 61 department heads at this university responded. The same survey was also given to 55 female department heads at Princess Noura University. Forty-eight out of 55 department heads at this university responded. In other words, in total, 116 department heads were asked to participate in this study, and 97, or 84%, of them participated. The final sample consisted of 49 female deputy department heads at King Saud University and 48 female department heads at Princess Noura University who were working in Spring of 2014. The entire sample of department heads and deputy department heads are Saudi Arabian and hold doctoral degrees. Table 1 shows the marital status for the entire sample.
Table 1: The Marital Status for the Participants

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>77</td>
<td>79.4</td>
</tr>
<tr>
<td>Single</td>
<td>10</td>
<td>10.3</td>
</tr>
<tr>
<td>Widow</td>
<td>2</td>
<td>2.1</td>
</tr>
<tr>
<td>Divorced</td>
<td>8</td>
<td>8.2</td>
</tr>
<tr>
<td>Total</td>
<td>97</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A total of 79.6% of participants from King Saud University are married, 8.2% are single, 4.1% are widowed, and 8.2% are divorced (See table 1).

Table 2: Marital Status for King Saud University

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>39</td>
<td>79.6</td>
</tr>
<tr>
<td>Single</td>
<td>4</td>
<td>8.2</td>
</tr>
<tr>
<td>Widow</td>
<td>2</td>
<td>4.1</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
<td>8.2</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A total of 79.2% of participants from Princess Noura University are married, 12.5% are single, and 8.3% are divorced in Princess Noura University (See table 3).
Table 3: Marital Status for Princess Noura University

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>38</td>
<td>79.2</td>
</tr>
<tr>
<td>Single</td>
<td>6</td>
<td>12.5</td>
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<tr>
<td>Divorced</td>
<td>4</td>
<td>8.3</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A total of 73.3% of participants received their Ph.D. in Saudi Arabia and 24.7% received their Ph.D. outside of Saudi Arabia (See table 4).

Table 4: Ph.D. received for All Participants

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Saudi Arabia</td>
<td>73</td>
<td>75.3</td>
</tr>
<tr>
<td>Outside Saudi Arabia</td>
<td>24</td>
<td>24.7</td>
</tr>
<tr>
<td>Total</td>
<td>97</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A total of 69.4% of participants from the King Saud University received their Ph.D. in Saudi Arabia and 30.6% received their Ph.D. outside of Saudi Arabia (See table 5).

Table 5: Ph.D. received for King Saud University

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Saudi Arabia</td>
<td>34</td>
<td>69.4</td>
</tr>
<tr>
<td>Outside Saudi Arabia</td>
<td>15</td>
<td>30.6</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A total of 81.3% of participants from Princess Noura University received their Ph.D. in Saudi Arabia and 18.8% received their Ph.D. outside of Saudi Arabia (See table 6).
Table 6: Ph.D. received for Princess Noura University

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Saudi Arabia</td>
<td>39</td>
<td>81.3</td>
</tr>
<tr>
<td>Outside Saudi Arabia</td>
<td>9</td>
<td>18.8</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The age range for the King Saud University was of 29 to 62 with a mean age of 43.1 and a standard deviation of 7.3. The experience range was of 1 to 35 years with a mean experience of 14 and standard deviation of 7.1 (See table 7).

Table 7: Descriptive Statistics for King Saud University

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>49</td>
<td>29.00</td>
<td>62.00</td>
<td>43.1</td>
<td>7.3</td>
</tr>
<tr>
<td>Experience</td>
<td>49</td>
<td>1.00</td>
<td>35.00</td>
<td>14.0</td>
<td>7.9</td>
</tr>
</tbody>
</table>

The age range for the Princess Noura University was of 33 to 57 with a mean age of 44.5 and a standard deviation of 5.6. The experience range was of 1 to 35 years with a mean experience of 16.9 and standard deviation of 8.6 (See table 8).

Table 8: Descriptive Statistics - Princess Noura University

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>48</td>
<td>24.00</td>
<td>33.00</td>
<td>57.00</td>
<td>44.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Experience</td>
<td>48</td>
<td>34.00</td>
<td>1.00</td>
<td>35.00</td>
<td>16.9</td>
<td>8.6</td>
</tr>
</tbody>
</table>
Materials and Procedure

An envelope with an informed consent statement that contained a description of the study, the job satisfaction survey and instrument for collecting demographic information enclosed was distributed by the researcher after obtaining approval to conduct the study from the Saudi Cultural Mission, the Ministry of Higher Education. The researcher visited all the departments in the two universities and asked each individual participant to take part in the study. Participants were also ensured that the information would be kept confidential.

Data Collection

To collect data, the researcher adapted a previously published survey used by Dr. Ryan E. Smerek, which explored job satisfaction in industry, to make it more appropriate for the purposes of the current study about Saudi female department heads’ job satisfaction in Saudi Arabian Public Universities. The original survey that Smerek used was designed to examine 2700 employees in business operations at one public research university by using Herzberg’s Job-Satisfaction Theory. The modified survey for the current study was to examine the level of job satisfaction at two universities in Saudi Arabia- King Saud University and Princess Noura University in relations to the job-satisfaction of female department-heads (See Appendices B and C). Additionally, the modified survey was reduced to a smaller sample size of 116 potential participants to collect data in relations to job-satisfaction.

The questionnaire for the current study was approved by the ministry of higher education in Saudi Arabia. Data were collected from the female department heads at the two types of universities by using a pencil-paper version of the adapted survey. The instrument consisted of three main parts. The first part evaluates job satisfaction, which includes thirteen dimensions or scales of job satisfaction: Achievement, Advancement, Work Itself, Recognition, Growth, Good
Feelings about Organization, Responsibility, University Policy, and Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior Management and Pay Satisfaction. The second part evaluates the overall job satisfaction by asking general satisfaction questions. The third part focuses on the individual participants’ demographic information (Age, marital status, location of PhD, and years of experience).

The survey items are based on a 10 point Likert-type scale, with 1 being Strongly Disagree and 10 being Strongly Agree. The mean and the standard deviation for the items for each of the 13 job satisfaction dimensions (scales) were computed after receiving responses from the target participants. The item means represent the level of satisfaction for each of the following scales: Achievement (3 items), Advancement (4 items), Work Itself (5 items), Recognition (6 items), Growth (6 items), Good Feelings about the Organization (5 items), Responsibility (3 items), University Policy (2 items), Relationship with Coworkers (7 items), Relationship with Supervisor (11 items), Work Security (3 items), Effective Senior Management (3 items) and Pay Satisfaction (7 items). The overall job satisfaction was obtained by using an overall job satisfaction measure that consists of 2 items (Appendix B). Individual demographic information including age, marital status (single, married, widowed, divorced), the graduation country where the PhD was received (Saudi Arabia vs. other countries), and years of experience was also collected from participants. (See Appendix B.) Open-ended questions were included to help identify other possible factors that may impact the female department heads’ job satisfaction in higher education in Saudi Arabia.

**Translation of Survey from English to Arabic**

Since the participants of this study were native Arabic speakers, an Arabic version of the survey was developed so the researcher sought assistance from experts in both languages (Arabic
and English) to translate the English survey into Arabic. Next, another expert translated the Arabic version back to English. The original English survey was compared with the English survey that was translated from Arabic to English to ensure that they are identical.

**The specific steps for data collection were as follows.**

1) First, the researcher sent an Arabic copy of the survey to the Saudi Cultural Mission to be approved. In order to receive permission for undergoing this survey, the Saudi Cultural Mission requires a letter of approval from the researcher’s academic-advisor at the University of Kansas and a copy of the survey in English and Arabic used for research. Additionally, this process was done electronically by e-government at www.safeer.mohe.gov.sa, which is an electronic exchange between Saudi Cultural Mission in the United States and ministry of higher education in Saudi-Arabia. This process included sending the researcher’s letter of approval from the academic-advisor at the University of Kansas along with a copy of the survey in English and Arabic to the ministry of higher education in Saudi-Arabia. The process for the approval process took approximately one month.

2) On January 8th, 2014, the researcher received the KU Human subjects’ approval IRB (See appendix D).

3) Next, permission from all campuses within King Saud University and Princess Noura University was solicited on January 2014 to conduct the survey with female department heads at their institutions. The researcher physically visited each higher-education institution to seek approval from the office of the president of both universities in order to conduct research. The process for gaining approval took about ten business days. Once approval was granted (See appendix E & F), the universities
turned in a letter of approval and after the research was completed (See appendix G&H), the universities sent letters of completion.

4) On February 5th, 2014, the researcher first went to Prince Noura University for 6 weeks to collect data then went to King Saud University for six weeks to mark off each department on the researcher’s constructed list to ensure that the Arabic survey was administered to that department.

5) The researcher personally met with each one of the targeted research participants and encouraged them to take part in the study. Each participant who agreed to participate was given the survey in an envelope. Participants were then asked to complete the survey within a specified timeframe and seal the survey in delivery envelope. After completing the survey, surveys were to be placed back into the envelope and all envelopes were gathered by the researcher. The researcher followed-up with participants after agreed time to have surveys completed. Additionally, the researcher gathered surveys from various departments within their envelopes to ensure confidentiality.

6) Lastly, the researcher organized and analyzed the participant data collected using the survey.

**Variables**

Independent Variables

The first independent variable in this study was the type of university environment; the gender-segregated King Saud University, and the single-sex Princess Noura University. Other independent variables included the demographic information (Age, marital status, years of experience, and graduation country from which the Ph.D. was received (Saudi Arabia vs. other
countries) of the department heads at the University of King Saud and Princess Noura University. The variables of age, marital status (Single, married, widowed, divorced) and years of experience were chosen due to various studies and research that found a positive correlation between job satisfaction and these variables. These variables were further explored in this study to determine if this holds true for female department heads at both University locations.

Job satisfaction in this study is represented by thirteen main scales and each scale is composed of several items. The 13 dimensions of job satisfaction (i.e., Achievement, Advancement, Work Itself, Recognition, Growth, Good Feelings about the Organization, Responsibility, University Policy, Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior, Management and Pay Satisfaction) also served as an independent variable as the researcher investigated the relationship between the level of overall job satisfaction and each dimension, both with the King Saud University sample and the Princess Noura University sample, respectively, and with two samples combined.

Dependent Variable

The dependent variable in this study was overall job satisfaction. Overall job satisfaction was computed by averaging the responses to overall satisfaction items. The participants of this study were asked to evaluate their overall satisfaction with the institution they work at on a 5-point Likert scale listed below. The mean score of overall job satisfaction was obtained by summing up the mean scores of participants’ choices of the scales to Question 1 below and the mean scores of their choices of the scales to Question 2 below and dividing this sum by two.

1- All things considered, rate your satisfaction or dissatisfaction with your institution as a place to work
   - Very dissatisfied
   - Dissatisfied
Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

2- If I had it to do all over, I would again choose to work at this institution.
- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

**Data Analysis**

Data analysis involved coding, analyzing, and interpreting the data collected from the questionnaire. The data was coded and entered into a database and analyzed using Statistical Package for Social Science (SPSS 20). The study examined how job satisfaction at the two universities differed with respect to thirteen dimensions of job satisfaction as well as the overall satisfaction and examined the possible influence of demographic variables including age, marital status, location the PhD was received, and years of experience on job satisfaction. Independent-samples t-tests were conducted to investigate if there are significant differences in the level of job satisfaction between female department heads from both universities. The researcher also conducted multiple regression analyses to examine if any of specific dimensions of job satisfaction significantly contribute to the overall job satisfaction of female department heads at both universities, respectively and in combination.

**Statistical treatments**

Descriptive analysis was used to evaluate the overall job satisfaction as well as the level of satisfaction across the 13 dimensions of job satisfaction measures at King Saud University and Princess Noura University. Descriptive analysis provided information about the mean and the
standard deviation of participants’ responses. High means indicate high satisfaction and low means indicate low levels of satisfaction. To understand the results of the survey, it is also important to consider the standard deviation scores. A large standard deviation indicated that there was high variability within the same group. Therefore, it was critical to consider both the mean and the standard deviation in the data analysis.

To evaluate if there were significant differences between the female department heads at King Saud University and the female department heads at Princess Noura University in their overall job satisfaction as well as the 13 dimensions of job satisfactions, a series of independent-samples t-tests were conducted.

Multiple regression analysis was conducted to predict the overall job satisfaction. The models included the 13 dimensions of job satisfaction (Achievement, Advancement, Work Itself, Recognition, Growth, Good Feelings about Organization, Responsibility, University Policy, Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior, Management and Pay Satisfaction after controlling for demographic and institution variables) as predictors and the demographic variables as control variables. This analysis was first run by using data collected from King Saud University only, and then by using data collected from Princess Noura University only. Next, the same analysis was run again by using combined data from both universities. When the combined data were used, the variable, University, was also added to the regression model to identify if there is any unique effect of institutions on the overall job satisfaction.

For the open-end question, quantitative approach was used in this study to determine an account of the survey participants based on their demographic factors to analyze their responses
to the measurable items of the survey, and to examine the significance of the selected variables in the attitude of the survey participants.

**Validity and Reliability**

This study adopted a survey used by E.Smerek and Peterson (2007) in “Examining Herzberg’s Theory: Improving Job Satisfaction among Non-Academic Employees at a University” in the journal *Research in Higher Education*. These researchers conducted a survey that looked at business operations employees at a large, public research university. In surveying these participants, they distributed these surveys electronically and by hard-copy. However, the primary way of distribution was electronically. This survey consisted of 109 questions which were written by an internal team which was led by an organization development specialist in business operations. In addition, the researchers utilized a customer satisfaction consulting firm. The survey included topics of training and development: recognition, collaboration, communication, and alignment with mission and goals and feelings about one’s jobs. Additionally, the question response options ranged from *strongly agree* to *strongly disagree* on a 10-point Likert scale. In analyzing the business operations employees at the large, public research university, the researchers also looked at six demographic items in addition to the 109 questions: area of employment, union membership, sex, age, being a member of a racial or ethnic minority, and length of service at the university (Smerek & Peterson, 2007).

The Smerek and Peterson survey was chosen because their research is closely aligned with this research in using Herzberg’s theory on job-satisfaction in analyzing the job-satisfaction of female department-heads at King Saud University and Princess Noura University. However, in this current research only 64 items (i.e., survey questions), measuring Herzberg’s 13 dimensions of job satisfaction, were used. The thirteen dimensions are: Achievement,
Advancement, Work Itself, Recognition, Growth, Good Feelings about Organization, Responsibility, University Policy, and Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior, Management and Pay Satisfaction. Cronbach’s alpha for these 13 individual measures was .96. Table 9 below shows the correlations among these 13 items and their correlations with the overall job satisfaction measure. As we can see that the 13 individual measures are highly correlated with each other and they are also highly correlated with the overall job satisfaction measure. All the relationships among the variables are statistically significant at the significance level of $\alpha = .01$. On one hand, the high correlations among the variables suggest that they are measuring the same thing, i.e., job satisfaction. As a result, tests to determine degree of multicollinearity were run.

The survey was reviewed by three professors within the Higher Education Administration program at the University of Kansas. In addition, these three professors were specifically a part of my dissertation committee.
Table 9: Correlation coefficients values among the individual job satisfaction measures and between the individual measures and the overall job satisfaction measure of the whole sample

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
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<tbody>
<tr>
<td>1. Achievement</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. Advancement</td>
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</tr>
<tr>
<td>3. Work itself</td>
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<td>.64***</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>4. Recognition</td>
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<td></td>
<td></td>
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<td>5. Growth</td>
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<tr>
<td>6. Feeling about Organization</td>
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<td>.64***</td>
<td>.73***</td>
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<tr>
<td>7. Responsibility</td>
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<td>.82***</td>
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<td>8. Policy</td>
<td>.76***</td>
<td>.72***</td>
<td>.65***</td>
<td>.78***</td>
<td>.76***</td>
<td>.65***</td>
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<tr>
<td>9. Relation w/ Coworker</td>
<td>.71***</td>
<td>.55***</td>
<td>.72***</td>
<td>.65***</td>
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<td>.70***</td>
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<td>.64***</td>
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<td></td>
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<tr>
<td>10. Relation w/ Supervisor</td>
<td>.65***</td>
<td>.52***</td>
<td>.65***</td>
<td>.69***</td>
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<tr>
<td>11. Security</td>
<td>.67***</td>
<td>.62***</td>
<td>.61***</td>
<td>.66***</td>
<td>.68***</td>
<td>.60***</td>
<td>.63***</td>
<td>.61***</td>
<td>.61***</td>
<td>.86***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Senior Management</td>
<td>.67***</td>
<td>.74***</td>
<td>.62***</td>
<td>.80***</td>
<td>.73***</td>
<td>.61***</td>
<td>.72***</td>
<td>.80***</td>
<td>.65***</td>
<td>.62***</td>
<td>.65***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Pay Satisfaction</td>
<td>.56***</td>
<td>.49***</td>
<td>.51***</td>
<td>.49***</td>
<td>.56***</td>
<td>.42***</td>
<td>.52***</td>
<td>.52***</td>
<td>.48***</td>
<td>.44***</td>
<td>.57***</td>
<td>.55***</td>
<td></td>
</tr>
<tr>
<td>14. Overall Satisfaction</td>
<td>.67***</td>
<td>.63***</td>
<td>.57***</td>
<td>.62***</td>
<td>.58***</td>
<td>.56***</td>
<td>.65***</td>
<td>.68***</td>
<td>.56***</td>
<td>.57***</td>
<td>.54***</td>
<td>.64***</td>
<td>.52***</td>
</tr>
</tbody>
</table>

*p < .10. **p < .05. ***p < .01.
Summary

A review of literature with a focus on the causes and impacts, the correlates, and the effects of job satisfaction provided the rationales why the present study is important and necessary. Based on the findings and suggestions from previous studies, this present study examined the factors that specifically impact female department heads’ job satisfaction in Saudi Arabian Universities.
CHAPTER FOUR
RESULTS

The focus of this chapter is to present the results of analyses related to 1) the four research questions of the study using independent-samples $t$-test and multiple regression and, 2) the responses to the open-ended questions. This chapter consists of two major sections: results of quantitative study and results of qualitative study. The results of quantitative study focus on (1) data description, (2) research questions and results, and (3) a summary of major findings.

Results of Quantitative Analyses

Data Description

The participants are 97 female department heads. Among them, 49 are employed at King Saud University and 48 at Princess Noura University. They all hold doctoral degrees. Most of them are married (79.6%) and received their Ph.D. in Saudi Arabia (73.3%). The average age of the participants is around middle forties, i.e., $M = 43.1$ for King Saud University and $M = 44.5$ for Princess Noura University.

They responded to a survey that consists of three main parts: 1) an evaluation of job satisfaction that includes 13 specific dimensions of job satisfaction (e.g., Advancement, Work Itself, etc.), 2) an evaluation of overall job satisfaction that asks general satisfaction questions and, 3) a collection of individual participants’ demographic information. Responses from 97 participants from both universities to the survey questions were analyze to address the four research questions.
Research Questions and Results

This study addressed four questions:

Q1: What are the levels of job satisfaction (overall as well as thirteen measures of job satisfaction) for female department heads at King Saud University and Princess Noura University? Are there significant differences between the female department heads from the two universities in terms of their overall job satisfaction as well as the thirteen measures of job satisfaction?

Q2: What specific dimensions of job satisfaction significantly contribute to the overall job satisfaction of female department heads in King Saud University and Princess Noura University, respectively, after controlling for the demographic variables?

Q3-1: Are there any unique effects of institutions on the overall job satisfaction of female department, when responses from both universities are combined, after controlling for the demographic variables and specific dimensions of job satisfaction variables?

Q3-2: Are there any unique effects of the specific dimensions of job satisfaction on the overall job satisfaction of female department heads, when responses from both universities are combined, after controlling for the demographic variables?

Q4: What other gender-related dimensions explain overall job satisfaction at Princess Noura University and King Saud University?

In order to answer the research questions above, the SPSS program (Version 20) was used to conduct independent samples t-test analyses and multiple regression.

Answers to Question 1:

A series of independent-samples t-tests were conducted to evaluate the levels of satisfaction for female department heads in King Saud University and Princess Noura University,
and to investigate if there are significant differences in the level of job satisfaction between samples from these two universities. Although there were some outliers, the researcher did not delete any of them because the sample size is small. Table 10 presents descriptive statistics of the job satisfaction measures for the entire sample. The thing that the participants were most satisfied with is Feeling about Organization (M = 8.67, SD = 1.89) and the thing that they were least satisfied with is Achievement (M = 6.81, SD = 2.07). The level of overall job satisfaction of this sample is pretty high (M = 3.78, SD = 0.97 over a 5-point Likert scale).

Table 10: Descriptive Statistics of Job Satisfaction Measures

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>7.94</td>
<td>2.04</td>
</tr>
<tr>
<td>Advancement</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>6.81</td>
<td>2.07</td>
</tr>
<tr>
<td>Work itself</td>
<td>97</td>
<td>8.80</td>
<td>1.20</td>
<td>10.00</td>
<td>8.20</td>
<td>1.94</td>
</tr>
<tr>
<td>Recognition</td>
<td>97</td>
<td>8.67</td>
<td>1.33</td>
<td>10.00</td>
<td>7.27</td>
<td>2.29</td>
</tr>
<tr>
<td>Growth</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>7.38</td>
<td>2.01</td>
</tr>
<tr>
<td>Feeling about Organization</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>8.67</td>
<td>1.89</td>
</tr>
<tr>
<td>Responsibility</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>7.24</td>
<td>2.06</td>
</tr>
<tr>
<td>Policy</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>6.83</td>
<td>2.39</td>
</tr>
<tr>
<td>Relation w/ Coworker</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>8.08</td>
<td>2.05</td>
</tr>
<tr>
<td>Relation w/ Supervisor</td>
<td>97</td>
<td>8.91</td>
<td>1.09</td>
<td>10.00</td>
<td>7.75</td>
<td>2.17</td>
</tr>
<tr>
<td>Security</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>8.02</td>
<td>2.41</td>
</tr>
<tr>
<td>Senior Management</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>6.93</td>
<td>2.36</td>
</tr>
<tr>
<td>Pay Satisfaction</td>
<td>97</td>
<td>9.00</td>
<td>1.00</td>
<td>10.00</td>
<td>7.11</td>
<td>1.94</td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>97</td>
<td>4.00</td>
<td>1.00</td>
<td>5.00</td>
<td>3.78</td>
<td>0.92</td>
</tr>
</tbody>
</table>

Results of the t-tests show that there is a statistically significant mean difference in pay satisfaction between female department heads at King Saud University and their peers at Princess Noura University. The female heads at Princess Noura University (M = 7.56, SD = 1.69)
reported significantly higher level of pay satisfaction than those at King Saud University \((M = 6.68, SD = 2.09), t(95) = -2.29, p < .05\). The actual salary level of the participants is confidential information that was not collected in the survey. Two possible reasons why participants from Princess Noura University had higher level of pay satisfaction are: 1) this university is newer than King Saud University and it may have a new payment system different than that in King Saud University; 2) because it is a newly-established university, it may provide better salary and/or benefits to retain its current employees and to attract potential employees. There are no statistically significant mean differences in regard to other measures of job satisfaction. In general, although female department heads at King Saud University \((M = 3.86, SD = .93)\) are more satisfied with their overall job and profession compared to those at Princess Noura University \((M = 3.71, SD = .92)\), there is no statistically significant mean difference in overall job satisfaction across these two universities \((t(95) = .80, p = n.s.)\).

When specific dimensions of job satisfaction are considered, female department heads at King Saud University are slightly more satisfied with Advancement, Recognition, Responsibility, Policy, Relationship with Coworkers and Senior Management, while female heads at Princess Noura University are more satisfied with Achievement, Work Itself, Growth, Feeling about Organization, Relationship with Supervisor, Security, and Pay Satisfaction.

Table 11 below presents detailed information about the levels of job satisfaction (overall as well as thirteen measures of job satisfaction) for female department heads at King Saud University and Princess Noura University.
Table 11: Results of t-test and Descriptive Statistics for Job Satisfaction by University

<table>
<thead>
<tr>
<th>University</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>95% CI for Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>7.78</td>
<td>2.28</td>
<td>49</td>
<td>8.10</td>
<td>1.78</td>
<td>48</td>
<td>-1.15, 0.50, -.78, 95</td>
</tr>
<tr>
<td>Advancement</td>
<td>6.82</td>
<td>1.98</td>
<td>49</td>
<td>6.81</td>
<td>2.19</td>
<td>48</td>
<td>-0.83, 0.85, .02, 95</td>
</tr>
<tr>
<td>Work Itself</td>
<td>7.98</td>
<td>2.20</td>
<td>49</td>
<td>8.43</td>
<td>1.63</td>
<td>48</td>
<td>-1.23, 0.34, -1.13, 95</td>
</tr>
<tr>
<td>Recognition</td>
<td>7.49</td>
<td>2.14</td>
<td>49</td>
<td>7.05</td>
<td>2.44</td>
<td>48</td>
<td>-0.49, 1.36, .94, 95</td>
</tr>
<tr>
<td>Growth</td>
<td>7.27</td>
<td>2.26</td>
<td>49</td>
<td>7.49</td>
<td>1.73</td>
<td>48</td>
<td>-1.04, 0.59, -.55, 95</td>
</tr>
<tr>
<td>Feeling about</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>8.61</td>
<td>2.20</td>
<td>49</td>
<td>8.73</td>
<td>1.51</td>
<td>48</td>
<td>-0.88, 0.65, -.30, 95</td>
</tr>
<tr>
<td>Responsibility</td>
<td>7.25</td>
<td>2.09</td>
<td>49</td>
<td>7.23</td>
<td>2.06</td>
<td>48</td>
<td>-0.82, 0.85, .034, 95</td>
</tr>
<tr>
<td>Policy</td>
<td>7.07</td>
<td>2.53</td>
<td>49</td>
<td>6.58</td>
<td>2.23</td>
<td>48</td>
<td>-0.47, 1.45, 1.01, 95</td>
</tr>
<tr>
<td>Relation w/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coworker</td>
<td>8.10</td>
<td>2.26</td>
<td>49</td>
<td>8.07</td>
<td>1.70</td>
<td>48</td>
<td>-0.79, 0.87, .09, 95</td>
</tr>
<tr>
<td>Relation w/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisor</td>
<td>7.58</td>
<td>2.52</td>
<td>49</td>
<td>7.93</td>
<td>1.74</td>
<td>48</td>
<td>-1.23, 0.52, -.81, 95</td>
</tr>
<tr>
<td>Security</td>
<td>7.86</td>
<td>2.83</td>
<td>49</td>
<td>8.18</td>
<td>1.92</td>
<td>48</td>
<td>-1.30, 0.65, -.66, 95</td>
</tr>
<tr>
<td>Senior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>6.97</td>
<td>2.44</td>
<td>49</td>
<td>6.90</td>
<td>2.29</td>
<td>48</td>
<td>-0.88, 1.03, .16, 95</td>
</tr>
<tr>
<td>Pay Satisfaction</td>
<td>6.68</td>
<td>2.09</td>
<td>49</td>
<td>7.56</td>
<td>1.69</td>
<td>48</td>
<td>-1.65, -0.12, -2.29, 95</td>
</tr>
<tr>
<td>Overall</td>
<td>6.68</td>
<td>2.09</td>
<td>49</td>
<td>7.56</td>
<td>1.69</td>
<td>48</td>
<td>-1.65, -0.12, -2.29, 95</td>
</tr>
<tr>
<td>Satisfaction²</td>
<td>3.86</td>
<td>0.93</td>
<td>49</td>
<td>3.71</td>
<td>0.92</td>
<td>48</td>
<td>-0.22, 0.52, .80, 95</td>
</tr>
</tbody>
</table>

*p < .10. **p < .05. ***p < .01.

² The individual dimensions of job satisfaction and the overall level of job satisfaction are not measured on the same scale. The individual dimensions are rated based on a “1 to 10” scale, with 1 = Strongly Disagree and 10 = Strongly Agree, and the overall level of job satisfaction is rated based on a “1 to 5” scale, with 1 = Very dissatisfied and 5 = Very Satisfied.
**Answers to Question 2:**

A multiple regression analysis was conducted to test if any of the specific dimensions of job satisfaction significantly contribute to the overall job satisfaction of female department heads at King Saud University and Princess Noura University, respectively. To better answer this question, the researcher first controlled for the demographic variables, i.e., age, experience, marital status, and Ph.D. received. None of these demographic variables are significantly related to the overall level of job satisfaction. Thus, the major predictors are the thirteen individual measures of job satisfaction, while the dependent variable is the overall level of job satisfaction.

The Variance Inflation Factor (VIF) measures the impact of collinearity among the variables in a regression model. Although there is no formal VIF value of determining presence of multicollinearity, values of VIF that exceed 10 are often regarded as indicating multicollinearity. In weak models, values above 2.5 may be a cause for concern. To be conservative, the researcher used the VIF value of 5 as a cut score in this study. The specific procedures are as follows:

1. Select data from a single university or both universities, accordingly, based on the research question;
2. Put all thirteen independent variables (i.e., the individual dimensions of job satisfaction) into the regression model and run the analysis;
3. Check the collinearity statistics in the results and find the independent variables that have a value of VIF greater than 5;
4. Remove one (usually the one with the largest value of VIF) independent variables with a value of VIF greater than 5 at a time, and rerun the analysis;
5. Repeat Step 4 until there are no independent variables that have a value of VIF greater than 5.

*King Saud University.* The researcher first ran data collected from King Saud University only. To identify multicollinearity among the independent variables (i.e., the thirteen measures of job satisfaction), the researcher examined the VIF measures of these variables in the regression model. Five variables, namely, Achievement, Recognition, Growth, Feeling about Organization, and Responsibility, presented values of VIF close or above 10 and were removed from the analysis. After removing these five variables, the values of VIF for all the remaining variables (i.e., the satisfaction with Advancement, Work Itself, University Policy, Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior, Management and Pay Satisfaction) were reduced to less than 5, indicating there were no multicollinearity among the remaining eight independent variables.

Results of this analysis show that the remaining eight measures of job satisfaction, as well as the demographic variables, accounted for a significant amount of the overall job satisfaction variability, \( R^2 = .63, F(12, 36) = 5.18, p < .001 \). After controlling for the demographic variables, the combination of the remaining eight measures of job satisfaction are significantly related to the overall job satisfaction index and approximately 55% of the variance of the overall job satisfaction index in the sample can be accounted for uniquely by the combination of these eight independent variables, \( R^2 \text{ change}^3 = .55, \Delta F(8, 36) = 6.80, p < .001 \).

Among the remaining eight measures of job satisfaction, only Pay Satisfaction makes a significant contribution to the prediction equation at the significance level of \( \alpha = .10 \) is employed (\( t(36) = 1.99, p = .06 \)). Results also show that Relationship with Coworkers and Security are

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3 \( R^2 \text{ change} = R^2 \) in the second model (.63) − \( R^2 \) in the first model (.08) = .55.
negatively related to the overall level of job satisfaction, meaning the better relationship they have with coworkers and the more secure they feel about their job, the lower level of overall job satisfaction is; the other professional factors are positively related to the overall level of job satisfaction. Among the individual measures of job satisfaction included in the model, satisfaction with Relationship with Supervisor contributes the most ($\beta = .34$), while satisfaction with Policy ($\beta = .06$) and Security ($\beta = -.06$) contributes the least, toward the overall level of the female department heads’ job satisfaction at King Saud University. Table 12 shows the contributions of the individual measures of job satisfaction as well as the demographic variables to female department heads’ overall level of job satisfaction at King Saud University.
Table 12: Results of Regression Analysis Predicting Overall Level of Job Satisfaction at King Saud University

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE(B)</td>
<td>β</td>
<td>B</td>
<td>SE(B)</td>
<td>β</td>
</tr>
<tr>
<td>Age</td>
<td>-.004</td>
<td>.03</td>
<td>-.03</td>
<td>-.012</td>
<td>.02</td>
<td>-.10</td>
</tr>
<tr>
<td>Experience</td>
<td>-.023</td>
<td>.02</td>
<td>-.20</td>
<td>.011</td>
<td>.02</td>
<td>.09</td>
</tr>
<tr>
<td>Marital Status</td>
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<td>.15</td>
<td>-.13</td>
<td>-.060</td>
<td>.11</td>
<td>-.06</td>
</tr>
<tr>
<td>PhD Received</td>
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<td>-.11</td>
<td>.139</td>
<td>.24</td>
<td>.07</td>
</tr>
<tr>
<td>Advancement</td>
<td></td>
<td></td>
<td></td>
<td>.093</td>
<td>.08</td>
<td>.20</td>
</tr>
<tr>
<td>Work Itself</td>
<td></td>
<td></td>
<td></td>
<td>.047</td>
<td>.08</td>
<td>.11</td>
</tr>
<tr>
<td>Policy</td>
<td></td>
<td></td>
<td></td>
<td>.022</td>
<td>.07</td>
<td>.06</td>
</tr>
<tr>
<td>Relation w/ Coworker</td>
<td></td>
<td></td>
<td></td>
<td>-.060</td>
<td>.08</td>
<td>-.15</td>
</tr>
<tr>
<td>Relation w/ Supervisor</td>
<td></td>
<td></td>
<td></td>
<td>.127</td>
<td>.07</td>
<td>.34</td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td></td>
<td></td>
<td>-.019</td>
<td>.07</td>
<td>-.06</td>
</tr>
<tr>
<td>Senior Management</td>
<td></td>
<td></td>
<td></td>
<td>.045</td>
<td>.08</td>
<td>.12</td>
</tr>
<tr>
<td>Pay Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td>.138</td>
<td>.07</td>
<td>.31*</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.08</td>
<td>.63</td>
</tr>
<tr>
<td>$F$ change in $R^2$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.95</td>
<td>6.80***</td>
</tr>
</tbody>
</table>

Note: $N = 49$. Degrees of freedom for the two regression equations are $F(4, 44)$ for Model 1, and $F(12, 36)$ for Model 2.

*p < .10.  **p < .05.  ***p < .01.

Princess Noura University. The researcher again examined the VIF measures of the independent variables in the regression model again to identify multicollinearity. Among them
(i.e., the thirteen measures of job satisfaction) when running the data collected from Princess Noura University. Three variables (i.e., Achievement, Responsibility, and Senior Management) presented values of VIF close or above 10. After removing these three variables, the values of VIF for all the remaining variables were reduced to less than 5.

Results of this analysis indicate that the remaining ten measures of job satisfaction as well as the demographic variables accounted for a significant amount of the overall job satisfaction variability, $R^2 = .60, F(14, 33) = 3.57, p < .01$. After controlling for the demographic variables, the combination of the remaining ten measures of job satisfaction are significantly related to the overall job satisfaction index and approximately 59% of the variance of the overall job satisfaction index in the sample can be accounted for uniquely by the linear combination of these ten independent variables, $R^2$ change = .59, $\Delta F(10, 33) = 4.91, p < .001$.

The variable, satisfaction with Policy, makes a significant contribution to the prediction equation (i.e., $t(33) = 2.75, p = .01$). In other words, it significantly contributes to the overall level of the female department heads’ job satisfaction at Princess Noura University. Results also show that Relationship with Coworkers, Security, Recognition, and Growth are negatively related to the overall level of job satisfaction (e.g., the better the relationship they have with their coworkers, the lower level of the overall job satisfaction is); the rest professional factors are positively related to the overall level of job satisfaction. Among the individual measures of job satisfaction included in the model, Policy contributes the most ($\beta = .67$), while Work Itself contributes the least ($\beta = .02$), toward the overall level of the female department heads’ job satisfaction at Princess Noura University. Table 13 shows the contributions of the individual measures of job satisfaction as well as the demographic variables to female department heads’ overall level of job satisfaction at Princess Noura University.
Table 13: Results of Regression Analysis Predicting Overall Level of Job Satisfaction at Princess Noura University

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE(B)</td>
<td>β</td>
<td>B</td>
<td>SE(B)</td>
<td>β</td>
</tr>
<tr>
<td>Age</td>
<td>-0.011</td>
<td>0.04</td>
<td>-0.07</td>
<td>-0.026</td>
<td>0.03</td>
<td>-0.16</td>
</tr>
<tr>
<td>Experience</td>
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<td>0.03</td>
<td>-0.03</td>
<td>0.020</td>
<td>0.02</td>
<td>0.19</td>
</tr>
<tr>
<td>Marital Status</td>
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<td>0.16</td>
<td>0.06</td>
<td>0.063</td>
<td>0.13</td>
<td>0.06</td>
</tr>
<tr>
<td>PhD Received</td>
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<td>0.58</td>
<td>-0.03</td>
<td>0.088</td>
<td>0.48</td>
<td>0.04</td>
</tr>
<tr>
<td>Advancement</td>
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<td></td>
<td></td>
<td>0.143</td>
<td>0.09</td>
<td>0.34</td>
</tr>
<tr>
<td>Work Itself</td>
<td></td>
<td></td>
<td></td>
<td>0.009</td>
<td>0.14</td>
<td>0.02</td>
</tr>
<tr>
<td>Policy</td>
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<td></td>
<td></td>
<td>0.275</td>
<td>0.10</td>
<td>0.67**</td>
</tr>
<tr>
<td>Relation w/ Coworker</td>
<td></td>
<td></td>
<td></td>
<td>-0.025</td>
<td>0.13</td>
<td>-0.05</td>
</tr>
<tr>
<td>Relation w/ Supervisor</td>
<td></td>
<td></td>
<td></td>
<td>0.120</td>
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<td>0.23</td>
</tr>
<tr>
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<td>-0.092</td>
<td>0.09</td>
<td>-0.19</td>
</tr>
<tr>
<td>Pay Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td>0.053</td>
<td>0.08</td>
<td>0.10</td>
</tr>
<tr>
<td>Recognition</td>
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<td></td>
<td></td>
<td>-0.099</td>
<td>0.09</td>
<td>-0.26</td>
</tr>
<tr>
<td>Growth</td>
<td></td>
<td></td>
<td></td>
<td>-0.119</td>
<td>0.11</td>
<td>-0.23</td>
</tr>
<tr>
<td>Feeling Organization</td>
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<td></td>
<td></td>
<td>0.128</td>
<td>0.14</td>
<td>0.21</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>0.60</td>
</tr>
<tr>
<td>$F$ change in $R^2$</td>
<td></td>
<td></td>
<td></td>
<td>0.11</td>
<td></td>
<td>4.91***</td>
</tr>
</tbody>
</table>

Note: $N = 48$. Degrees of freedom for the two regression equations are $F(4, 43)$ for Model 1, and $F(14, 33)$ for Model 2.

$p < .10$. **$p < .05$. ***$p < .01$. 

66
Answers to Question 3:

The researcher then combined data collected from both universities, and conducted a multiple regression analysis to test if any of the specific dimensions of job satisfaction significantly contribute to the overall job satisfaction of female department heads at both universities. Further, the variable, University, was added into this model to see if it is a significant predictor that may detect any possible unique effects from institutions on the overall job satisfaction. Again, the VIF measures of the independent variables in the regression model were examined to identify multicollinearity among these variables. Three variables (i.e., Achievement, Recognition, and Growth) presented values of VIF close or above 10. After removing these three variables, the values of VIF for all the remaining variables were reduced to less than 5.

To examine if institution where the department chairs work plays a unique role in their overall satisfaction, the regression model included institution (King Saudi versus Princess Nora), in addition to demographic and ten satisfaction measures. The results show that university is not a significant predictor of faculty satisfaction, indicating that were was no statistically significant effect of institution on overall satisfaction. The regression model indicates that all independent variables, including satisfaction measures, demographic variables, and institutions accounted for a significant amount of the overall job satisfaction variability, $R^2 = .58, F(15, 81) = 7.41, p < .01$. After controlling for the demographic variables, the combination of the remaining ten measures of job satisfaction are significantly related to the overall job satisfaction index and approximately 55% of the variance of the overall job satisfaction index in the sample.

Of all satisfaction measures, pay satisfaction ($t(81) = 2.22, p = .03$) is significantly related to overall satisfaction at .05 level. Table 14 shows the contributions of the individual measures of
job satisfaction as well as the demographic variables to female department heads’ overall level of job satisfaction at both universities.
Table 14: Results of Regression Analysis Predicting Overall Level of Job Satisfaction at King Saud University and Princess Noura University (including University as an independent variable).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE(B)</td>
</tr>
<tr>
<td>Age</td>
<td>-.01</td>
<td>.02</td>
</tr>
<tr>
<td>Experience</td>
<td>-.01</td>
<td>.02</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-.04</td>
<td>.11</td>
</tr>
<tr>
<td>PhD Received</td>
<td>-.18</td>
<td>.27</td>
</tr>
<tr>
<td>Advancement</td>
<td></td>
<td>.09</td>
</tr>
<tr>
<td>Work Itself</td>
<td></td>
<td>-.02</td>
</tr>
<tr>
<td>Feeling Organization</td>
<td></td>
<td>.04</td>
</tr>
<tr>
<td>Responsibility</td>
<td></td>
<td>.05</td>
</tr>
<tr>
<td>Policy</td>
<td></td>
<td>.08</td>
</tr>
<tr>
<td>Relation w/ Coworker</td>
<td></td>
<td>-.02</td>
</tr>
<tr>
<td>Relation w/ Supervisor</td>
<td></td>
<td>.09</td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td>-.03</td>
</tr>
<tr>
<td>Senior Management</td>
<td></td>
<td>.01</td>
</tr>
<tr>
<td>Pay Satisfaction</td>
<td></td>
<td>.11</td>
</tr>
<tr>
<td>University</td>
<td></td>
<td>-.21</td>
</tr>
<tr>
<td>$R^2$</td>
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<td>.03</td>
</tr>
<tr>
<td>$F$ for change in $R^2$</td>
<td></td>
<td>.81</td>
</tr>
</tbody>
</table>

Note: $N = 97$. Degrees of freedom for the two regression equations are $F(4, 92)$ for Model 1, and $F(15, 81)$ for Model 2.

*p < .10. **p < .05. ***p < .01.
After conducting a regression model that contained all variables (including institution, demographic variables, and satisfaction variables), another regression model that did not have institution as an independent variable was conducted. In this model, faculty satisfaction with policy became significant, indicating that faculty members who are more satisfied with Policy are more likely to be satisfied with their institution in general. This finding suggests that there is a significant suppressor effect of institution that influences the effect of Policy satisfaction on faculty's overall satisfaction. But once the institution variable is removed, the suppressor effect disappears and the effect of policy satisfaction becomes significant. With this finding, it is possible to assume that institution plays a significant role in determining the effect of faculty satisfaction with policy, all things being equal. Table 15 shows the contributions of the individual measures of job satisfaction as well as the demographic variables to female department heads’ overall level of job satisfaction at both universities, without the variable University included in the model.
Table 15: Results of Regression Analysis Predicting Overall Level of Job Satisfaction at King Saud University and Princess Noura University (University not added as an independent variable)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE(B)</td>
<td>β</td>
<td>B</td>
</tr>
<tr>
<td>Age</td>
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<td>0.02</td>
<td>-0.06</td>
<td>-0.01</td>
</tr>
<tr>
<td>Experience</td>
<td>-0.02</td>
<td>0.02</td>
<td>-0.13</td>
<td>0.01</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.04</td>
<td>0.11</td>
<td>-0.03</td>
<td>-0.05</td>
</tr>
<tr>
<td>PhD Received</td>
<td>-0.18</td>
<td>0.27</td>
<td>-0.09</td>
<td>0.17</td>
</tr>
<tr>
<td>Advancement</td>
<td></td>
<td></td>
<td></td>
<td>0.09</td>
</tr>
<tr>
<td>Work Itself</td>
<td></td>
<td></td>
<td></td>
<td>-0.04</td>
</tr>
<tr>
<td>Feeling Organization</td>
<td></td>
<td></td>
<td></td>
<td>0.05</td>
</tr>
<tr>
<td>Responsibility</td>
<td></td>
<td></td>
<td></td>
<td>0.05</td>
</tr>
<tr>
<td>Policy</td>
<td></td>
<td></td>
<td></td>
<td>0.10</td>
</tr>
<tr>
<td>Relation w/ Coworker</td>
<td></td>
<td></td>
<td></td>
<td>-0.01</td>
</tr>
<tr>
<td>Relation w/ Supervisor</td>
<td></td>
<td></td>
<td></td>
<td>0.08</td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td></td>
<td></td>
<td>-0.02</td>
</tr>
<tr>
<td>Senior Management</td>
<td></td>
<td></td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>Pay Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td>0.09</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.03</td>
<td></td>
<td>.57</td>
<td></td>
</tr>
<tr>
<td>$F$ for change in $R^2$</td>
<td>.81</td>
<td></td>
<td>10.13***</td>
<td></td>
</tr>
</tbody>
</table>

Note: $N = 97$. Degrees of freedom for the two regression equations are $F(4, 92)$ for Model 1, and $F(14, 82)$ for Model 2.

*p < .10.  **p < .05.  ***p < .01.
Summary

To summarize, the major findings are listed as follows:

1. There is no statistically significant mean difference ($t(95) = .80, p = \text{n.s.}$) in overall job satisfaction between female department heads at King Saud ($M = 3.86, SD = .93$) and Princess Noura ($M = 3.71, SD = .92$) universities. For specific satisfaction measures, the female department heads at Princess Noura University ($M = 7.56, SD = 1.69$) reported significantly higher level of pay satisfaction than those at King Saud University ($M = 6.68, SD = 2.09$), $t(95) = -2.29, p < .05$.

2. The combination of the individual measures of job satisfaction (after removing the variables with high values of VIF from the predicting models), and after controlling for the demographic variables, accounted for a significant amount of the overall job satisfaction variability both when the data were analyzed separately for each university and when they were analyzed in combination. To be specific, the combination of the individual measures of job satisfaction uniquely accounted for approximate 55% of the variance of the overall job satisfaction index in the King Saud University sample ($R^2$ change = .55, $\Delta F(8, 36) = 6.80, p < .001$); the combination of the individual measures of job satisfaction uniquely accounted for approximate 59% of the variance of the overall job satisfaction index in the Princess Noura University sample ($R^2$ change = .59, $\Delta F(10, 33) = 4.91, p < .001$); and the combination of the individual measures of job satisfaction uniquely accounted for approximate 54% of the variance of the overall job satisfaction index in the combined sample from both universities ($R^2$ change = .55, $\Delta F(11, 81) = 9.51, p < .001$).

3. An interesting finding is that when the variable (i.e., University) that represents whether the faculty members work at King Saudi or Princess Nora was not included in the
regression model of the entire sample, satisfaction with policy became significant, indicating that faculty who are more satisfied with policy are more likely to be satisfied with their institution in general. But once the institution variable is removed, the suppressor effect disappears and the effect of Policy satisfaction becomes significant. This finding suggests that there are significant suppressor effects of institution that influences the effect of policy satisfaction on faculty's overall satisfaction. This means, depending on the institutions the department chairs work, there are significant differences in the level of satisfaction with policy all things being equal.

4. Satisfaction with Achievement, Growth, Responsibility, Recognition and Senior Management are variables that tend to cause multicollinearity among variables when they are included in the model. Therefore, the variable, Achievement, was removed from all the models. In addition, the variables, Growth and Recognition, were removed from the models applied to the King Saud University sample and the combined sample. And the variable, Responsibility, was also removed from the models applied to the King Saud University sample and the Princess Noura University sample, respectively.

5. No unique effects from institutions on the overall job satisfaction were detected.
Results of Qualitative Analyses

To answer the 4th research question (What other gender-related dimensions explain overall job satisfaction at Princess Noura University and King Saud University?), three open-ended questions were given to the participants to collect their opinions. The two open-ended questions for the King Saud University sample are as follows:

1) What are positive aspects of working for a male supervisor?
2) What are some disadvantages of working for a male supervisor?

Accordingly, the first two open-ended questions for the Princess Noura University sample are as follows:

1) What are positive aspects of working for a female supervisor?
2) What are some disadvantages of working for a female supervisor?

The third open-ended question remains the same for both samples – “How would you compare the leadership style of male and female leaders?”

Answers to Open-ended Question 1:

King Saud University

Through analyzing responses from the King Saud University sample to this open-ended question, the researcher found that there are four factors that affect the job satisfaction under the supervision of a male supervisor. They are as follows:

1. Flexibility

Twenty-six out of 49 of King Saud University sample mentioned that the flexibility of the male supervisor was one of the main factors that affected job flexibility, where 53% of the sample mentioned that a man's flexibility had a great significance to gain the satisfaction of the female employees working under his supervision, and this is what distinguished the
administration of males. A department head mentioned that her boss’ flexibility at work makes her comfortable and gives her permanent job satisfaction.

2. Experience

Experience was the second factor the researcher discovered through the responses to this question. A male supervisor was characterized by the experience of dealing with senior leaderships and female employees. Seventeen out of 49, equivalent to 35% of King Saud University sample, mentioned that experience is an important factor for women in the administration field to achieve job satisfaction; they have longer experience and they have better understanding of laws. In addition, another woman said, “A man has accurate and confident decisions based on his former experiences.”

3. Quick Decision-Making

Decision-making is the third factor that emerged from the responses to this open-ended question. Fifteen out of 49, equivalent to 31% of the participants, believed that a man in charge is characterized by the speed in decision-making. A female department head mentioned, “A man’s speed in decision-making causes work to be fulfilled as required.” Another one said, “A man is firm and his decisions are often oriented and non-volatile.”

4. Support

Support is the last factor that was found in the responses to this open-ended question. Results showed that twelve out of 49 of King Saud University sample, equivalent to 24%, participants expressed that support is a feature of a man in charge which helps to achieve job satisfaction at work. One woman mentioned, "One of the advantages of dealing with men is that they are very understanding, cooperative, and they appreciate the achievements of the female department heads." This is in agreement with Mengash’s study in 2001 which showed that there
was a high correlation between support and job satisfaction.

**Princess Noura University**

Through examining responses from the Princess Noura University sample to this open-ended question, the researcher discovered that there are three new factors that affect job satisfaction when the superintendent is a female. They are as follows:

1. **Ease of Communication**

   Ease of communication is another factor that took the lion's share of job satisfaction in Princess Noura University, 22 out of 48 of the sample, or 46%, agrees that ease of communication is an important factor of job satisfaction factors regarding the female superintendent in the university, this is due to the easiness in communicating with her and talking to her directly without the need to use the various means of communication like the phone. One woman said, “One of the most positive things in working with a female superintendent is the easiness in contacting her, talking to her face to face and inspecting and meeting the students.” This opposes Shallal’s study (2013) in The United Arab Emirates which stated that a flexible woman who works with men is more satisfied than those who prefer to work in female environment.

2. **Understanding for Women’s Circumstances**

   Understanding women’s circumstances is the second factor which emerged through this study. The researcher found that 11 out of 48 of Princess Noura sample, or 23%, agreed that understanding of women circumstances is one of the positives when working with a female superintendent because she understands women's nature and their family circumstances without embarrassment. One mentioned, “A female superintendent understands the responsibilities related to the nature of women and understands their physical condition.” Another said, “A woman understands some private cases of women and she is able to discuss all the family issues
and problems without embarrassment.”

3. Achievement and Appreciation

Achievement and Appreciation are the last factors affecting job satisfaction found by the researcher. Eight out of 48 of the sample (16%) thought that achievement and appreciation is one of the advantages of working with a female superintendent. And this was mentioned by several female department heads. One said, “A female superintendent is encouraging for women to work and prove themselves and encouraging for creativity.” Another added, “A female superintendent is characterized by the appreciating the devotion of the working member and encouraging her.”

The table below summarizes the factors discussed above from both universities and the percentage of participants who shared the same opinions.

<table>
<thead>
<tr>
<th>King Saud University</th>
<th>Princess Noura University</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What are positive aspects of working for a male supervisor?</strong></td>
<td><strong>What are positive aspects of working for a female supervisor?</strong></td>
</tr>
<tr>
<td>1- Flexibility 53%</td>
<td>1- Ease of Communication 46%</td>
</tr>
<tr>
<td>2- Experience 35%</td>
<td>2- Understanding for Women Circumstances 23%</td>
</tr>
<tr>
<td>3- Quick Decision-making 31%</td>
<td>3- Achievement and Appreciation 16%</td>
</tr>
<tr>
<td>4- Support 24%</td>
<td></td>
</tr>
</tbody>
</table>
Answers to Open-ended Question 2

King Saud University

Through analyzing responses to this open-ended question, the researcher found that there are three factors that affect job satisfaction negatively under the supervision of a male supervisor. They are as follows:

1. Not Effective Communication with Female Employees under His Supervision

This factor was mentioned by most participants in the answers to this open-ended question. Twenty-one out of 49, equivalent to 43% (which is nearly half of the sample), were not satisfied with the indirect way of male communication with female employees. One said that the absence of direct briefing on problems and achievements for both sides is one of the most important causes of job dissatisfaction towards the male supervisors’ being far from the work environment. Another one added that the delay in direct communication that depends on phone calls between the male and female departments was one of the most important defects that lead to job dissatisfaction towards a male supervisor. This was emphasized by the Al-Shaman study in 1993 which shows that the lack of communication between males and females leads to ineffectiveness of administration in decision-making. Bubshait study in 2012 agrees with this finding - there is a belief that there is a difficulty for females to deal with a male superintendent. The Hamdan study in 2005 agrees on the presence of historical and social effect which does not encourage the direct interaction between males and females outside the family; it emphasizes that the cultural differences must be taken in consideration when we compare the factors that lead to job dissatisfaction in Saudi Arabia to the other countries of the world.

2. Centralism in Decision-Making
Sixteen out of 49, equivalent to 33%, participants said that a male superintendent has centralism in decision-making because he does not consult females when he makes a decision in spite that some decisions concern the both sides. One female department head said, “Male superintendents do not trust female employees, they do not appreciate their points of views and suggestions and this is due to the superior view they have towards females which is only based on the difference in gender but not the scientific and administrative competence.” Another woman added, “Male superintendents tend to centralize and make almost all the decisions despite the fact that women are their business partners.” And finally, one department head said, “Male superintendent in the university is dominant and conservative to some powers against female employees.”

3. Lack of Appreciation of the Responsibilities of Working Women as Wives and Mothers

The researcher noticed that five out of 49 of King Saud University sample, or 10%, were dissatisfied with the lack of appreciation of the responsibilities of working women as wives and mothers by the male in charge, which causes job satisfaction in the university. Men do not realize or understand the circumstances that might affect women's performance at work. One said, “One of the disadvantages of working under the supervision of a male superintendent is that he does not appreciate the responsibilities incumbent upon women as females, mothers and wives and he does not understand the nature of women and what they face in getting birth and taking care of their babies.”

Princess Noura University

Through analyzing responses from the Princess Noura University to the second open-ended question, the researcher noticed that there are four factors that affect job dissatisfaction when the superintendent is a female.
1. Lack of Experience and Instability of Decisions

Lack of experience and fluctuation of decisions are the first factor that has appeared through this open question. Twenty-four out of 48, or 50%, participants see that the lack of experience and fluctuation of decisions are important causes of job dissatisfaction when working with a female superintendent. This is due to several reasons, e.g., the literal adherence to regulations that are out of flexibility. And this might be due to some psychological aspects of some females which affect decision-making and cause fluctuation. One mentioned, “Some of the disadvantages of female administration are the literal adherence to regulations which are out of decision flexibility and the presence of some psychological aspects for some ladies that affect decision-making and lead to fluctuation and conflict among the directories of the university.” Another one added, “Strong adherence to unimportant details disrupts tasks, causes fluctuation and leads to streaming fluctuated changes.” On another side, lack of experience affects decisions as one said, “Most women are lacking leadership and fast decision-making due to the lack of experience.” And another one added, “The lack in the leading experience is due to the adherence to the unimportant details and neglecting the important issues.” This finding is in line with Bubshait study in 2012 which states that there is lack of confidence in female administration, weakness in female administration skills and unwillingness of females to accept their leading role.

2. Lack of Flexibility

Sixteen out of 48 of the Princess Noura Sample, (i.e., 33.3%) said that lack of flexibility is one of the disadvantages of working under female administration. A woman lacks flexibility in decision-making and she depends on the literal application to regulations. One department head at Princess Noura University said, “Women are emotional but irrational in taking decisions.”
Another added, “One of the defects of a female superintendent is the lack of flexibility in the application of regulations and the literal adherence to rules.”

3. Bureaucracy

Bureaucracy is one of the factors that affects female administration and make it one of the disadvantages of working under the supervision of a female superintendent. The results have shown that nine out of 48, or 18%, participants said that female superintendents are bureaucratic in decision-making and they complicate the procedures. Based on that, one department head said," A woman is not confident in decision-making but she refers to the senior administration in the university despite of the powers she has as being in charge." Another added," Complexity of the procedures and paying attentions to details are reasons for females' aversion to work under the supervision of female administration."

4. Jealousy

Jealousy is the least important negative factor the researcher found in the responses to this question. Five out of forty-eight of the sample, or of 10%, thought that jealousy is one of the factors that affect the work of the female superintendent and make it one of the disadvantages of the female administration. We have evidence supported by others’ opinions," There's a clear and negative competition between females who tend to be jealous."

The table below presents the factors summarized from the participants’ responses to the second open-ended question and the percentage of participants sharing the same ideas.
<table>
<thead>
<tr>
<th>King Saud University</th>
<th>Princess Noura University</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What are some disadvantages of working for a male supervisor?</strong></td>
<td><strong>What are some disadvantages of working for a female supervisor?</strong></td>
</tr>
<tr>
<td>1- Not communicating effectively with Female Employees under His Supervision 43%</td>
<td>1- Lack of Experience and instability of Decisions 50%</td>
</tr>
<tr>
<td>2- Centralism in Decision-making 33%</td>
<td>2- Lack of Flexibility 33.3%</td>
</tr>
<tr>
<td>3- Lack of appreciation of the responsibilities of working women as wives and mothers 10%</td>
<td>3- Bureaucracy 18%</td>
</tr>
<tr>
<td>4- Jealousy 10%</td>
<td></td>
</tr>
</tbody>
</table>

**Answers to Open-ended Question 3**

**King Saud University**

Based on the analysis of responses from the King Saud University sample to the third open-ended question, the researcher has found out that there are four new factors which affect job satisfaction through the leadership approach between males and females. They are as follows:

1. **Males Are Bolder and More Flexible**

   The researcher found that sixteen out of forty-nine (33%) female department heads prefer male leadership for their flexibility and smoothness in dealing with the female employees and they interact more in the department administration. That was according to what some female
department heads mentioned, where one of them said," Men are more flexible and more comprehensive in leadership." And another one added," Men support and interact constantly with females in department administration." One participant also commented," Males are better and more flexible than females in leadership." These results agree with what Shallal (2013) said that flexible women who work with men are more job satisfied than women who prefer to work in female environment.

2. Male Administrators Are Central and Dictatorial

Eleven out of 49 women, or 22%, said that male administrators are characterized by dictatorship and centralism in decision-making with no reference to the female department which makes it one of the defects of men administration that causes job dissatisfaction. One said, “Male administration is dictatorial to some extent and not flexible in some decisions.”

3. Female Administrators Are More Complicated

Female administration is considered more complicated based on the answers from the sample to this comparative question from King Saud University. Eleven out of forty-nine, or of 22%, participants mentioned that women administrators are more bureaucratic in dealing with them, while men are more receptive to the others' opinions than women and they are more understanding, while some women mentioned that they are sometimes characterized with jealousy which leads to taking some tough and out of flexibility decisions. One said," Women often have limited outlooks only in the literal application of the rules with some complication with their colleagues and less interaction." Another added," Women side has some jealousy and complication."

4. Females Are More Understanding of Working Women’s Circumstances

The last factor that emerged in this open question where 5 out of 49 of King Saud
University sample, or 10% see that women are more understanding to working women circumstances which increases job satisfaction. One woman head department said, “A man is sometimes tough because he does not know how women suffer in the work environment.” Another woman said, “Men are strict in some issues and they do not change a decision they take, contrary of women, because they are more understanding to their colleagues' nature and family circumstances.” These responses imply that, compared to men, female supervisors are more understanding to working women’s circumstances. This opposes what Shallal’s study, 2013 stated that a flexible women who work with men is more job satisfied than those who prefer to work in female environment.

**Princess Noura University**

From the Princess Noura University sample’s responses to the third open-ended question, the researcher found that there are three new factors that affect job satisfaction through the leading approach of males and females. They are as follows:

1. **A Man is Bolder in Decision-Making**

   By comparing women to men, it was found that men are bolder in decision-making than women and braver in expressing their opinions with the logic that cannot be affected by emotion, personal side, or leaning to some people or discriminating. Fourteen out of 48, or 29%, of the Princess Noura participants agreed that men are bolder, so they prefer the leading approach of the male. One department head said, "I prefer the leadership of the males because they respect women, they respect the laws and they have no discrimination." Further, one added, "Men are more serious and more adventurous than women and their decisions are rational and not affected
by emotion or personal matter." Another participant concluded, "I think that the leading approach of men is better as they are more able to take decisions and fast in achievement."

2. Men Are More Flexible than Women

Eleven out of 48 (23%) participants believed that men are more flexible than women in leadership for the smoothness and neutrality they have in dealing with women in the work field with understanding to their nature. A department head in Princess Noura University said, "Male administrative leaders have the ability to achieve the administrative procedures in a shorter time." Another added, "Man are easier to deal with and more flexible while I find women are strict and more complex." Furthermore, another one said, "Men are more successful in the leading work as men are characterized by neutrality in dealing with women, understanding to their nature and settling things easily."

3. Female Administrators Are More Complicated than Men

Five out of 48, or 10%, participants thought that women are more complicated in the administrative work than men; this is based on what one department head said, "Women are more complicated than men because of their literal adherence to regulations without any withdrawal in some issues where men see some flexibility in regulations." Another added, "A woman in the leading position is like a glass wall against who work with her which restricts their development, so in my opinion, male leadership is better and precedes female leadership in many stages."

The table below presents the above factors summarized from the participants’ responses to the third open-ended question. The rate of responses regarding each of the factors is shown as well.
King Saud University | Princess Noura University
---|---
**How would you compare the leadership style of male and female leaders?** | **How would you compare the leadership style of male and female leaders?**
1- Males Are Bolder and More Flexible  33% | 1- A Man is Bolder in Decision-making  29%
2- Male Administrators Are Central and Dictatorial  22% | 2- Men are more flexible than women  23%
3- Female Administrators Are More Complicated  22% | 3- Female Administrators Are More Complicated than Men  10%
4- Females Are More Understanding to Working Women Circumstances  10% |  |
CHAPTER FIVE
DISCUSSION

Introduction

This chapter contains five sections. An overview of the study is presented in the first section. In the second section, the findings of the four research questions and the open-ended questions are discussed. Implications of the study are presented in the third section. Limitations of the study are outlined in the fourth section. Recommendations for future research directions are provided in the fifth section.

Study Overview

The purpose of this study was to measure the current level of job satisfaction for female department heads at King Saud University and Princess Noura University, and to investigate if there are any differences in job satisfaction between the female department heads in those two universities.

A survey questionnaire was conducted to collect data from both universities. Job satisfaction was measured by the survey questions. The principle variable investigated was the environment: the gender-segregated King Saud University and the single-sex Princess Noura University. Open-ended questions were included at the conclusion of the survey to help examine the attitudes of employees at both universities. The researcher adapted a previously published survey used by Dr. Smerek (2007) in examining Herzberg’s Theory, which explored job satisfaction in industry, and made it suitable for Saudi female department heads in Saudi Arabian Public Universities. The survey consisted of three main parts. The first part evaluates job satisfaction, which includes thirteen dimensions or scales of job satisfaction: Achievement, Advancement, Work Itself, Recognition, Growth, Good Feelings about Organization,
Responsibility, University Policy, Relationship with Coworkers, Relationship with Supervisor, Work Security, Effective Senior Management and Pay Satisfaction. The second part evaluates the overall job satisfaction by asking general satisfaction questions. The third part focuses on the individual participants’ demographic information (age, marital status, location of PhD, and years of experience).

The Findings

Recall that the first research question is stated as “What are the levels of job satisfaction (overall as well as thirteen measures of job satisfaction) for female department heads at King Saud University and Princess Noura University? Are there significant differences between the female department heads from the two universities in terms of their overall job satisfaction as well as the thirteen measures of job satisfaction?” As previously shown in chapter four, a high overall level of job satisfaction was indicated across the thirteen dimensions by the female heads from both universities. A significant difference by University was found only in the variable “pay satisfaction.” The actual salary level of the participants is confidential information that was not collected in the survey. Two possible reasons why participants from Princess Noura University had higher level of pay satisfaction are: 1) this university is newer than King Saud University and it may have a new payment system different than that in King Saud University; 2) because it is a newly-established university, it may provide better salary and/or benefits to retain its current employees and to attract potential employees.

No significant differences were detected between the department heads in the two universities across the other dimensions of job satisfaction and the overall satisfaction. This agrees with the results of a study conducted by Kaiser (2007), which shows that in 10 out of 14 countries, women appeared to have higher level of job satisfaction than men. It was generally
concluded that women’s satisfaction level is higher than men’s in respect to job security, and lower in terms of work hours. Shallal (2013) investigated the factors that affect working women of the United Arab Emirates and provided relevant data on the subject of job satisfaction in the Arab world. Among the findings, income and increased level of education positively affected job satisfaction.

The high level of job satisfaction might be attributed to the set of benefits and incentives that Saudi faculty members gain. Faculty in Saudi Arabia are offered many benefits in addition to their salary, such as housing, free basic medical and dental care offered by the universities’ medical centers, monthly transportation allowance, round-trip tickets for attending conferences. Also, the government of Saudi Arabia implemented a new system of incentives and benefits in order to help faculty at Saudi universities feel stable in their jobs as well as to improve the educational system in Saudi universities. In addition to the basic salary, some of the benefits and incentives include a 25% teaching allowance, a 20 – 40% bonus for exceptional and specialized fields, allowances for working in new universities, and an increase in salary correlated with the performance of faculty (Al-Qurashi, 2014). For example, faculty who received a local prize get a 10% increase in salary; if she received a regional prize, she gets 20%; if she received an international prize she gets 30%; and finally she receives 40% for an invention or patent (DFA, n.d). Also, extra allowances are given to faculty in administrative positions such as dean, vice dean, and department heads. Comparing the pay for faculty members in 15 countries, among them Saudi Arabia, China, Canada and the United States of America, Fischer (2008) found that faculty at Saudi universities received the most increase in earnings over their academic job, and the average salaries for Saudi professors are the highest. That seems to make working at a Saudi
university a rewarding job and thus faculty feel satisfied with the environment in which they work.

By asking the first open-ended question (i.e., “What are positive aspects of working for a female supervisor?”), the researcher found that understanding for women’s circumstances may be counted as an additional factor that affects job satisfaction. Results indicated that 23% of the respondents in the Princess Noura sample all agreed that understanding of women’s special circumstances is one of the positives when working with a female superintendent, as her compassion and understanding are expected. Although the understanding for women’s circumstances is an important positive factor affecting overall job satisfaction, it is not the only factor. Other factors, such as the 13 job satisfaction measures used to address the quantitative research questions in the present study, also contribute to overall job satisfaction. For example, the results of the first research question show that the female department heads at King Saud University have higher level of overall job satisfaction than those at Princess Noura University, even though Princess Noura University is a woman university.

Looking at job flexibility as the main variable in their study, Bender, Donohue and Heywood (2005) suggested that women value flexibility between work and home more than men, who tend to value higher pay more than women do. They also suggested that women “self-sort” into fields that offer more flexibility, citing data that women working in traditionally female-dominated fields such as nursing and teaching tend to report higher levels of job satisfaction. The later results are consistent with the findings of this research. This means that understanding of women’s circumstances affects job satisfaction in a positive way, as illustrated by the women in the Princess Noura University.
The second open ended question for the Princess Noura Sample was “What are some disadvantages of working for a female supervisor?” The answers to this question indicate that the lack of experience and fluctuation of decisions is the first factor that appeared, as about 50% of the sample confirmed that the lack of experience and fluctuation of decisions are the disadvantages when working with a female superintendent. This can be attributed, as reported from the answers, to several reasons, such as the literal adherence to regulations that are inflexible, and this might be due to some psychological aspects of some women which affect decision-making and cause fluctuation. Perhaps, given the role of women in Saudi Arabia, women are unaccustomed to making decisions and are inexperienced in doing so. This agrees with Bubshait's study (2012), which states that there is lack of confidence in female administration, weakness in female administration skills and unwillingness of females to accept their leading role. Lack of flexibility was the second disadvantage indicated by the answers from 33% of the female participants working under female administration. They agreed that women lack flexibility in decision-making and restrict themselves to the literal applications of system regulations. Based on answers to the two open-ended questions, it can be concluded that the lack of experience and fluctuation of decisions and the lack of flexibility are resulting in lower job satisfaction among female department heads in Princess Noura University. This indicates that the results from the open-ended questions were more reflective of the current situations than the findings the survey provides.

The second research question stated “what specific dimensions of job satisfaction significantly contribute to the overall job satisfaction of female department heads in King Saud University and Princess Noura University, respectively, after controlling for the demographic variables?” Referring to results in chapter four, it was revealed that the combination of the
remaining eight measures of job satisfaction accounted for a significant amount of the overall job satisfaction variability among female heads at King Saud University. Among them, only Pay Satisfaction makes a significant contribution to the overall job satisfaction.

This finding came in agreement with an early study by Pfeffer and Langton (1993) in which wage dispersion appeared to be correlated to lower job satisfaction in a sample chosen from university faculty. More recent research done by August and Waltman (2004) and Bozeman and Gaughan (2011) confirmed this finding by reporting higher satisfaction among university faculty significantly is correlated with higher payment.

For data collected from Prince Noura University, results indicate that the remaining ten measures of job satisfaction accounted for a significant amount of the overall job satisfaction variability. The variable, satisfaction with Policy, significantly contributes to the overall level of the female department heads’ job satisfaction at Princess Noura University.

No demographic variables were significantly related to the overall job satisfaction for both King Saud University and Princess Noura University. Therefore, this finding in the current study is contradictory to the results found by Smerek and Peterson (2007), who concluded that overall satisfaction is the product of a complex balance of many components. Smerek and Peterson also found in this study that age is one component that has positive correlation with job satisfaction. Another study conducted by Al-Nefesah 2011 revealed the same conclusion. Earlier work by Clark, Oswald and Warr (1996) investigated the relationship between age and job satisfaction. Their findings showed a complicated relationship where other factors interfered. The disagreement between the results of this study and the previous studies can be attributed to the size of sample, the age range of participants, the location, the cultural background of the participants, and the date of the study.
An early study by Weaver (1978) investigated the effect of marital status on the level of job satisfaction. A correlation between marital status and job satisfaction was found, and single employees showed higher job satisfaction. This result was supported by Steiner and Truxillo (1987). Conversely, a more recent study by Al-Aameri (2000) demonstrating that marital status significantly affected job satisfaction found that the level of satisfaction was higher among married employees.

A study by Ball and Chick (2001) compared early employment outcomes of home and foreign educated Malaysian graduates and came to the conclusion that there was no relationship between job satisfaction and location of study, which supports our findings, although the study focused only on early outcomes.

Further, Pay Satisfaction makes a significant contribution to the overall job satisfaction of the female department heads from both universities.

In the current study, there is a significant relationship between Pay Satisfaction and overall job satisfaction for the King Saud University; for the Princess Noura University, there is a significant relationship between Policy and overall job satisfaction; and both Pay Satisfaction and Policy are significantly related to overall job satisfaction when data from both universities are combined. It makes sense that policy of these two universities plays an important role in the female heads’ overall job satisfaction because both universities are public universities and their policies secure their employees’ positions. The results of this study are in agreement with an early study by Pfeffer and Langton (1993) in which wage dispersion appeared to be correlated to lower job satisfaction in a sample chosen from university faculty. More recent research done August and Waltman (2004) and Bozeman and Gaughan (2011) confirmed the results through reporting higher satisfaction among university faculty significantly correlated with higher
payment as was evident by later mentioned results. These results suggest that these two
dimensions are the best predictors of overall job satisfaction.

Answers from King Saud University to the first open-ended question (i.e., What are positive aspects of working for a male supervisor?) revealed factors that may be considered as new dimensions of job satisfaction at least in the Saudi context. Flexibility was one of the factors, according to 53% of King Saud University sample’s opinion. Experience in dealing with leadership and women employees was the second factor, as 35% of the same sample agreed on this point. Decision-making came was third, chosen by 31% of the sample and the final factor was support of supervisors according to 24% of the sample’s opinion. The later factor agrees with Mengash’s study in 2001, which indicated a high correlation between support and job satisfaction. The exact opposite question was asked as an open-ended question to the same institution, King Saud University, “What are some disadvantages of working for a male supervisor?” About 43% of the sample agreed that difficulty of communication made them unsatisfied because males and females work in two entirely separate buildings. This issue was emphasized by Bubshait’s study in 2012. Al-Shaman (1993) argued that the lack of effective communication between males and females negatively affects decision-making. Hamdan’s study (2005) referred to a correlation between lack of communication and job satisfaction. The second-rated answer to the question by 33% of the sample was Centralism in Decision-making. The explanation based on the answers was that a male superintendent usually does not consult females even if the decision is related to both males and females. The third-rated disadvantage, by 10%, was lack of appreciation of the responsibilities of working women as wives and mothers. The sample says that a male in charge does not take into serious consideration women’s special circumstances, although these circumstances might affect their performance.
An interesting result occurred when the same question was asked to the Princess Noura University sample considering female supervision. Jealousy appeared to be the lowest-ranking disadvantage as chosen by 10% of the sample. One of the department heads at Princess Noura University stated, “There's a clear and negative competition between females which is nearly to be jealousy”. Jealousy is a factor of dissatisfaction when working under female administration.

A related open-ended question was asked to both universities: “How would you compare the leadership style of male and female leaders?” About 33% of the King Saud University sample confirmed the result we previously concluded, i.e., male leadership is preferred due to men’s flexibility in dealing with females under their administration. Answers to this question by the Princess Noura University sample supported our previously mentioned results of difficulty in communicating with male supervisors, as easiness of communication was the first-rated factor. About 46% of the sample agreed that easy communication is essential to job satisfaction. This was attributed to the ability to deal and talk directly with a supervisor, which eliminates the need to use other means such as the phone. The results of this study are in agreement with an early study by Pfeffer and Langton (1993) in which wage dispersion appeared to be correlated to lower job satisfaction in a sample chosen from university faculty. More recent research conducted by August and Waltman (2004) and Bozeman and Gaughan (2011) confirmed the results, reporting that higher satisfaction among university faculty significantly correlated with higher payment. Recognition, however, was the strongest predictor of job satisfaction according to their statistics.

However, it was previously demonstrated, through open-ended questions to the King Saud university sample in the current study, that male administration was favored by deputy department heads, as was shown by the agreement of 33% participants on flexibility of male leaders. Central decision-making of male leaders was another significant result as pointed out by
22% of the sample. On the other hand, 29% of the Princess Noura University respondents believed that male leaders are bolder in decision-making than female leaders, while 23% thought that male administration is more flexible in dealing with female employees. Our results come into agreement with a study by Mengash (2007), in which leadership style differences across gender in King Saud were investigated. The author looked at important differences in leadership strategies between male department heads and female vice department heads. In Mengash study, data were collected from 68 participants, half of them were female deputy department heads and half were male department heads. Two different leadership styles were examined: “Power Over”, in which the leader is more concerned with application of regulations of the organization and “Power With”, in which the leader is mainly concerned with maintaining good relationships and collaboration with workers in the organization. Results suggested that gender was a significant predictor of leadership style. It was also found that the trend toward using “Power With” was more pronounced in case of male department heads, while the trend of female vice department heads was to use “Power Over” style, although both styles were used.

**Implications of study**

This study’s intent was to measure the current level of job satisfaction for female department heads at King Saud University and Princess Noura University and to explore any differences in job satisfaction between the female department heads in those two universities. The findings of this research provide useful implications to administrative leaders and policy makers in higher education in Saudi Arabia.

First, it is important for the administrative leaders at King Saud University to know that the less effective communication between the male leaders and their female employees is the major factor that affects the female department heads’ overall job satisfaction. Although this
could not easily be changed or improved due to the cultural background, the male administrative leaders can at least make some efforts to improve in the other two areas that the participants were concerned about – the empowerment in decision-making and the appreciation of the responsibilities of working women as wives and mothers. If the male administrative leaders at King Saud University could get their female employees better involved in decision-making and show more appreciation to their dual roles both in job market and in families, the overall job satisfaction of these female employees may be significantly increased.

Second, it is helpful for the administrative leaders at Princess Noura University to know that their employees are less satisfied with the fact that the female supervisors seem to be less experienced and less firm in decision-making and less flexible. In addition, the job satisfaction of the employees can also be impacted when they feel their female supervisors are bureaucratic and/or jealous. These concerns from the participants are great reminders to the administrative leaders at Princess Noura University, so that they can fix the problems with specific plans and clear goals.

Third, it is vital for the policy-makers to know that payment level and the satisfaction with institutional policy are playing a significant role in the overall job satisfaction of the female department headers in both universities. With this understanding, the policy-makers may want to continue to offer good salaries and benefits to the employees in public universities retain and motivate the faculty and staff to do a better job. Also, the ministry of higher education, as well as the policy-makers at the universities, may be interested in developing policies that continue to secure the positions of the employees and create innovative environments for the employees to achieve better.
Fourth, by comparing responses from the female department heads at both universities, the researcher found that both male and female administrative leaders have advantages and disadvantages in their leadership. Therefore, another imperative implication of this study is that both male and female supervisors could benefit from learning from each other’s good leading styles. By learning from each other’s strong points, both male and female administrative leaders could effectively increase their efficiency and quality of their management. And the improvement in management will in turn increase the level employees’ overall job satisfaction.

Limitations of the study

This study was conducted in the semester of Fall 2013. In addition, data was collected from February 2014 until April 2014, and data-analysis took place between April 2014 and May 2014. This research focused only on female department heads at King Saud University and Princess Noura University. Thus, the data collected from the survey cannot be generalized for all administrators at these two universities or to other Saudi Arabian universities. The sample-size consisted of 97 department heads in total - 49 female deputy heads from King Saud and 48 department heads from Princess Noura. In order to generalize about the population surveyed, a collection of 100 completed surveys was needed to insure that the population was accurately represented. In addition, the survey was administered in Arabic to participants and was translated from Arabic to English by professionals skilled in translating languages. The last limitation may due to the tendency of survey respondents to answer questions in a manner that will be viewed favorably by others. The participants may over-report "good behavior" or under-reporting "bad", or undesirable behavior. Finally, the survey data for this present study were collected by the researcher on site after the participants completed the questionnaire. The participants may not have felt secure in being honest for fear that the researcher could attach responses to individuals.
This bias may have interfered with the responses. On the other hand, the researcher would not have been able to gather sufficient data using traditional survey method.

**Future research directions**

This research opens the horizon for further research topics, such as:

1. A comparative study about job satisfaction could be done among faculty members from all the departments, instead of department heads only, in both universities, using larger sample sizes. By increasing the sample size and recruiting participants from all the departments, the participants would be more diverse and could better represent the population. Thus, the finds could be better generalized. Further, with a more diverse sample, some demographic information, such as age, marital status, teaching experience, and so on, may be a significant predictor to the overall job satisfaction.

2. A study could be conducted to compare males and females in job satisfaction for department heads in two public universities that are gender-segregated and have similar educational environments, such as the University of Imam Muhammad Bin Saud and King Saud University in Riyadh. This study is meaningful because the more similar the two universities are, the less confounding information will be involved to impact the findings. Thus, the comparison will be more meaningful. Moreover, the University of Imam Muhammad Bin Saud was originally established focusing on the Islamic studies in 1953, while King Saud University was established in 1957. The University of Imam Muhammad Bin Saud is comparatively more culturally and religiously conservative, while King Saud University is more open. Therefore, this proposed study may reflect more of the impact from the institutional policies.

3. Another possible study could be about job satisfaction for staff administrators at Princess
Noura University who work under contract (no tenure and lower salary) and those who work under the university’s administration (tenure and higher salary), because the researcher was aware of some complaints from the contracted workers when collecting data for the current research. So, it is worthwhile to further explore this topic.

4. This current study examined the relation between overall job satisfaction and different dimensions of job satisfaction among Saudi women department heads. It did not examine how these 13 different job satisfaction dimensions differed between each university beyond a bi-variant level. It is possible that there were multi-variant differences between universities, however. Further research could examine possible differences between universities on these dimensions.

**Conclusion**

This research shows the differences in job satisfaction between female department heads at the University of Princess Noura and at King Saud University. Significant results were found in relationship to the Pay Satisfaction and Policy predictors.

In response to the first research question, addressing overall job satisfaction and the thirteen measures of job satisfaction, only level of payment was found to be a significant factor. The many benefits and incentives offered in the Saudi university system contribute to job satisfaction among administrators. Among the specific measures of job satisfaction included in the regression model, the variable Policy showed a strong prediction correlation with the overall job satisfaction, when data collected from Princess Noura University were analyzed.

Supporting the significance of relationships with supervisor are the open-ended questions. These questions show that there are new aspects that affect female department heads positively or negatively. For instance, there are factors affecting women in King Saud
University, where they prefer men in upper administration positions due to advantages such as their flexibility, experience, support, and quick decision-making. On the other hand, female department heads find some disadvantages of having men in upper administration positions, such as their inability to communicate effectively with female employees under their supervision, centralism in decision-making, and lack of appreciation of the responsibilities of working women as wives and mothers. Furthermore, female department heads believe that males are bolder and more flexible than females, male administration is central and dictatorial, female administration is more complicated, and females are more understanding of working women’s circumstances.

One finding of the research at the University of Princess Noura was that female department heads see some positive features in women, such as ease of communication and understanding of women’s circumstances. On the other hand, they see some disadvantages, such as lack of experience and fluctuation of decisions, lack of flexibility, and bureaucracy. In comparing the leadership style of males and females, we found that men are bolder in decision-making and more flexible than women.
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APPENDIX

Appendix A: Information Statement

Information Statement

The Department of Educational Leadership & Policies at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty.

The goal of this study is to investigate the current level of job satisfaction for female department heads. The content of the study should cause no more discomfort than you would experience in your everyday life. Your participation is solicited, although strictly voluntary, and your name will not be associated with the research findings. Although participation may not benefit you directly, we believe that the information obtained from this study will help us gain a better understanding of the level of job satisfaction at this university. You will likely complete the survey in less than 20 minutes.

If you would like additional information concerning this study before or after it is completed, please feel free to contact us by phone or mail. Completion of the study indicates your willingness to participate in this study and that you are at least 18 years old. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email irb@ku.edu.

Sincerely,

Naimah Alhumaidhi
Student Researcher
Educational Leadership & Policies
University of Kansas
Lawrence, KS 66045
(216) 526-2920
nalhumadhi@ku.edu

Dr. Susan Twombly
Faculty Supervisor
Educational Leadership & Policies
University of Kansas
Lawrence, KS 66045
(785) 864-9721
stwombly@ku.edu
Appendix B: Questionnaire English

Part 1: dimensions of Job Satisfaction

Please select a number 1–10, 1 meaning you strongly disagree and 10 meaning you strongly agree.

<table>
<thead>
<tr>
<th>Item</th>
<th>SD</th>
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<tr>
<td></td>
<td>1</td>
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<tr>
<td><strong>Achievement:</strong></td>
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<tr>
<td>I am proud to work in the university because it recognizes my achievements</td>
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<tr>
<td>I feel satisfied with my work because it makes me feel accomplished</td>
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<tr>
<td>I feel like I have contributed positively towards the university for which I work</td>
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<td><strong>Advancement:</strong></td>
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<tr>
<td>My job enables me to learn new skills for career advancement</td>
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<tr>
<td>Opportunities for promotion or advancement exist within the university</td>
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<td>Internal candidates receive fair consideration for open positions</td>
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<td>Information about vacancies within the university are readily available</td>
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<td><strong>Work Itself:</strong></td>
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<tr>
<td>There is variety in the tasks that I complete for my job</td>
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<tr>
<td>My job challenges me appropriately</td>
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<tr>
<td>I enjoy the work I do at the university</td>
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<tr>
<td>I feel like the work I do at the university is important</td>
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<td>I feel like I make a difference in my department and at the university</td>
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</table>
**Recognition:**

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<tr>
<th>Statement</th>
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<tbody>
<tr>
<td>I receive adequate recognition for a job well done</td>
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<tr>
<td>My manager expresses thanks when I do a good job</td>
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<tr>
<td>I feel appreciated when I complete a task</td>
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<tr>
<td>I feel like my coworkers recognize my good work</td>
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<tr>
<td>Expressions of thanks and gratitude are common in my university department</td>
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<tr>
<td>My contributions are valued by the university for which I work</td>
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**Growth:**

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<th>Statement</th>
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<tbody>
<tr>
<td>My job at the university allows me to grow as a person</td>
<td></td>
</tr>
<tr>
<td>My university provides training for me to develop and grow my skills</td>
<td></td>
</tr>
<tr>
<td>I have received the appropriate training to do my job well</td>
<td></td>
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<tr>
<td>The university I work for allows me to develop myself as a person</td>
<td></td>
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<tr>
<td>Someone in my department has talked to me about my progress in the last year</td>
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<tr>
<td>There is someone at the university who encourages my development</td>
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</tbody>
</table>

**Good Feelings about Organization:**

<table>
<thead>
<tr>
<th>Statement</th>
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<tbody>
<tr>
<td>I feel like I belong to the University</td>
<td></td>
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<tr>
<td>I enjoy talking about the university with people who do not work there</td>
<td></td>
</tr>
<tr>
<td>I feel strongly committed to the university</td>
<td></td>
</tr>
<tr>
<td>I am proud to work for the university</td>
<td></td>
</tr>
<tr>
<td>I care about the future of the university</td>
<td></td>
</tr>
</tbody>
</table>

**Responsibility:**
<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>My opinion is valued at the university</td>
<td></td>
</tr>
<tr>
<td>I have input about decisions that affect my work</td>
<td></td>
</tr>
<tr>
<td>The university provides the necessary tools and resources for me to do my job</td>
<td></td>
</tr>
<tr>
<td><strong>University Policy:</strong></td>
<td></td>
</tr>
<tr>
<td>The attitude of the administration adds to a harmonious working environment</td>
<td></td>
</tr>
<tr>
<td>The university policies are favorable to the employees</td>
<td></td>
</tr>
<tr>
<td><strong>Relationship with coworkers:</strong></td>
<td></td>
</tr>
<tr>
<td>It is easy to get along with my colleagues</td>
<td></td>
</tr>
<tr>
<td>My colleagues are helpful and friendly</td>
<td></td>
</tr>
<tr>
<td>I am treated with respect by my coworkers</td>
<td></td>
</tr>
<tr>
<td>My coworkers made me feel welcomed when I joined the university</td>
<td></td>
</tr>
<tr>
<td>My department at the university cares about me as a person</td>
<td></td>
</tr>
<tr>
<td>My workgroup collaborates effectively with one another</td>
<td></td>
</tr>
<tr>
<td>My coworkers and I work together as part of a team</td>
<td></td>
</tr>
<tr>
<td><strong>Relationship with Supervisor:</strong></td>
<td></td>
</tr>
<tr>
<td>My supervisor is a strong and trustworthy leader</td>
<td></td>
</tr>
<tr>
<td>My supervisor communicates well</td>
<td></td>
</tr>
<tr>
<td>My supervisor creates an environment that creates trust</td>
<td></td>
</tr>
<tr>
<td>My supervisor cares about me as a person</td>
<td></td>
</tr>
<tr>
<td>I feel my performance has improved because of my relationship with my supervisor</td>
<td></td>
</tr>
<tr>
<td>My supervisor is approachable and easy to talk to</td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>1</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>My supervisor deals effectively with poor performance</td>
<td></td>
</tr>
<tr>
<td>My supervisor treats me with respect</td>
<td></td>
</tr>
<tr>
<td>My supervisor considers my ideas</td>
<td></td>
</tr>
<tr>
<td>My supervisor gives me constructive feedback on my performance</td>
<td></td>
</tr>
<tr>
<td>My supervisor recognizes me for doing good work</td>
<td></td>
</tr>
<tr>
<td><strong>Work Security:</strong></td>
<td></td>
</tr>
<tr>
<td>I feel safe working at my university</td>
<td></td>
</tr>
<tr>
<td>I believe my job is secure</td>
<td></td>
</tr>
<tr>
<td>I feel that my job is stable</td>
<td></td>
</tr>
<tr>
<td><strong>Effective Senior Management:</strong></td>
<td></td>
</tr>
<tr>
<td>Senior management keeps employees informed</td>
<td></td>
</tr>
<tr>
<td>Senior Management communicates effectively</td>
<td></td>
</tr>
<tr>
<td>Senior management demonstrates leadership qualities</td>
<td></td>
</tr>
<tr>
<td><strong>Pay Satisfaction:</strong></td>
<td></td>
</tr>
<tr>
<td>I am encouraged to work harder because of my salary</td>
<td></td>
</tr>
<tr>
<td>I believe my salary is fair</td>
<td></td>
</tr>
<tr>
<td>The pay I receive is appropriate for the work I do</td>
<td></td>
</tr>
<tr>
<td>Salary increases are important</td>
<td></td>
</tr>
<tr>
<td>The salary I receive is competitive when compared to other universities</td>
<td></td>
</tr>
<tr>
<td>I understand how my salary base is determined</td>
<td></td>
</tr>
<tr>
<td>My salary is an important factor in my decision to stay at the university</td>
<td></td>
</tr>
</tbody>
</table>
Part 2: Overall Job Satisfaction

All things considered, rate your satisfaction or dissatisfaction with your institution as a place to work

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

If I had it to do all over, I would again choose to work at this institution.

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

Part 3: Demographic Information:

1. How old are you?
   
   .................................

2. How many years of experience do you have at this university?
   
   .................................

3. Current Marital status:
   - Married
   - Single, never married
4. Location of the institution from which you received your PhD?
   - In Saudi Arabia
   - Outside of Saudi Arabia

King Saud University Open-Ended Questions:
- What are positive aspects of working for a male supervisor?
- What are some disadvantages of working for a male supervisor?
- How would you compare the leadership style of male and female leaders?

Princess Noura University Open-Ended Questions:
- What are positive aspects of working for a female supervisor?
- What are some disadvantages of working for a female supervisor?
- How would you compare the leadership style of male and female leaders?
Appendix C: Questionnaire Arabic

بسم الله الرحمن الرحيم

عزيزيت رئيسة القسم:

بين يديك استبانة لدراسة موضوع "الرضا الوظيفي لرؤساء الأقسام الإناث في الجامعات الحكومية في المملكة العربية السعودية" وهي دراسة مقارنة بين جامعة الملك سعود وجامعة الأميرة نورة بنت عبدالرحمن في الرياض للحصول على درجة الدكتوراه في إدارة التعليم العالي. قيادة تربوية من جامعة كانساس, الولايات المتحدة الأمريكية. ويعكس هذا الاستبان ملاحظاتكم وتصوراتكم فيما يتعلق ببيئة العمل في جامعتكم. أرجو التكرم بتعبئة الاستبانة والإجابة على الأسئلة المفتوحة.

جميع المعلومات في هذا الاستبيان سوف تعامل بسرية ولن تُستخدم إلا لأغراض البحث العلمي فقط.

شاكرة لك على حسن تعاونك واهتمامك.

الباحثة
نعيمه ناصر الحميضي
Nnh1981@gmail.com
+966554144355
الجزء الأول: أبعاد الرضا الوظيفي

يرجى اختيار رقم من 1-10، الرقم 1 يعني أنك تعارضين بشدة والرقم 10 يعني أنك توافقين بشدة.

<table>
<thead>
<tr>
<th>العباقرة</th>
<th>موافقة</th>
<th>موافقة بشدة</th>
<th>غير موافقة بشدة</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

الإنجاز:

أنا فخورة بالعمل في هذه الجامعة لأنها تقدر إنجازاتي.
آشر بالرضا في عملي لأنني أسعد بالإنجاز.
آشر بانتي ساهمت بشكل إيجابي تجاه الجامعة التي أعمل بها.

التقدم:

عمل يتيح لي تعلم مهارات جديدة للتقدم الوظيفي.
فرص الترقي و التطور الوظيفي متوفرة في الجامعة.
يحظى المرشحون من الداخل بتقييم عادل للمناصب الشاغرة.
المعلومات حول الوظائف الشاغرة متوفرة دائمًا داخل الجامعة.

العمل ذاته:

هناك تنوع في المهام التي أقوم بإنجازها في عملي.
عملي يشكل تحدياً مناسباً لي.
أشر أن العمل الذي أقوم به في الجامعة مهم.
آشر بأنني ساهمت بشكل إيجابي تجاه الجامعة التي أعمل بها.

التقدير:

أتلقى التقدير الكافي مقابل العمل الموجه بشكل جيد.
تقوم إدارة بتقدير عن شكري عندما أقوم بعمل جيد.
أشر بالتقدير عندما أقوم بإنتاج مهمة ما.
تتيح لي الجامعة مناقشتي بالعمل يعترف بعملي الجيد.
استقبلت الشكر والامتنان شائعة في أقسام الجامعة.
تقدر قيمة مساهماتي من قبل الجامعة التي أعمل بها.

التطور:

وظيفي في الجامعة تسمح لي بالتطور كفرد.
تقدم لي الجامعة التدريب لتطوير وتنمية مهاراتي.
قد تلقنت التدريب المناسب للقيام بعمل جيد.
تتيح لي الجامعة مناقشتي بالعمل بشكل جيد.
قد تحضر شخص ما في إدارتي حول تطورني في العام الماضي.
هناك شخص ما في الجامعة يقوم بتشجيعي التطور.

المشاعر الجيدة حول الجامعة:

اشعر بالانتماء لهذه الجامعة.

الموافقين: 10
الموافقين بشدة: 9
غير الموافقين بشدة: 1
لا استمتع بالحديث عن الجامعة مع أشخاص لا يعملون بها.

أشعر بالالتزام قوي تجاه الجامعة.

أشعر بالفخر لعملي في الجامعة.

أهمن حول مستقبل الجامعة.

المسؤولية:

رأيي ذو قيمة في الجامعة.

 لدي مشاركات حول القرارات التي تؤثر على عملي.

توفر الجامعة الأدوات والمصادر الضرورية للقيام به.

سياسة الجامعة:

طريقة الإدارة تضيف إلى بيئة العمل المنسجمة.

سياسات الجامعة مساعدة للموظفات.

العلاقة مع زميلات العمل:

من السلسلة الاستماع مع زميلاتي في العمل.

زميلاتي متعاونات وودودات.

تعاملني زميلاتي باحترام.

زميلات العمل منحنى الشعور بأنني شخص معتمد به عندما انضمت للعمل.

بولتي قصمي في الجامعة الاهمة للعمل.

تعاطن مجموعتي بفعالية مع بعضي البعض في العمل.

نقوم أنا وزميلاتي بالعمل كفريق.

العلاقة مع المشرفة في العمل:

تتمتع مشرفتي في العمل بالقوة والقيادة.

تتواصل مشرفتي في العمل بشكل جيد.

تخليق مشرفتي بيئة مفعمة بالثقة في العمل.

توليني مشرفة الاهتمام بي كفرد.

أشعر بأن أدائي في العمل قد تطور بسبب علاقتي مع المشرفة.

مشترفي في العمل ودودة ومن السهل التحدث إليها.

تتعامل مشرفتي في العمل بفعالية مع ضعف الأداء.

تعاطني مشرفتني باحترام في العمل.

تاخذ المشرفة أفكاري بعيد الاعتبار.

تنحنى المشرفة ملاحظات بناءة تتعلق بأدائي في العمل.

تلاحظ مشرفة أدائي الجيد.

السلامة الوظيفية:

أشعر بالسلامة في عملي في الجامعة.

أؤمن بأن عملي آمن.

أشعر بالاستقرار الوظيفي.
الإدارة العليا الفعالة:

- تبقى الإدارة العليا الموظفات على اطلاع دائم.
- تتوصل الإدارة العليا بفعالية.
- تتمتع الإدارة العليا بالصفات القيادية.

الرضاء المادي:

- يشجعني راتبي للعمل بجهود أكبر.
- أؤمن براتبي عادل.
- يتطلب المقابل المادي الذي أتقاضاه مع طبيعة العمل الذي أقوم به.
- تزيد في الرواتب ضرورية.
- الراتب الذي أتقاضاه تناسب بالمقارنة مع الجامعات الأخرى.
- أتفهم كيف حددت راتبي الأساسي.
- راتبي عامل مهم بحدد قرار استمراري في الجامعة.

الجزء الثاني: الرضا الوظيفي العام

1- كل الأمور تؤخذ في الاعتبار عند تقييم مدى رضاك أو عدم رضاك من جامعتكم كمكان للعمل:
   - غير راضية جداً
   - غير راضية
   - لا راضية ولا غير راضية
   - راضية
   - راضية جداً

2- لو عادني الزمن سوف أختار العمل في هذه الجامعة مرة أخرى:
   - لا أوافق بشدة
   - لا أوافق إلى حد ما
   - لا أوافق ولا أرفض
   - أوافق إلى حد ما
   - أوافق بشدة

الجزء الثالث: معلومات ديموغرافية

1) كم عمرك؟

----------------------------------

2) كم عدد سنوات الخبرة لديك في هذه الجامعة؟

----------------------------------

3) الحالة الاجتماعية الحالية:
_ متزوجة _ 
_ عزباء و لم يسبق لك الزواج _ 
_ أرملة _ 
_ مطلقة _

4) مكان الجامعة التي حصلت عليها درجة الدكتوراه:
_ داخل السعودية _ 
_ خارج السعودية _

* أسئلة مفتوحة الإجابة لجامعة الملك سعود:

- ما هي الجوانب الإيجابية في العمل تحت إشراف مسؤول (ذكر)؟
- ما هي عيوب العمل تحت إشراف مسؤول (ذكر)؟
- كيف تقارنين بين النهج القيادي لدى الذكور والإناث؟

* أسئلة مفتوحة الإجابة لجامعة الأميرة نورة:

- ما هي الجوانب الإيجابية في العمل تحت إشراف مسؤول (انثى)؟
- ما هي عيوب العمل تحت إشراف مسؤول (انثى)؟
- كيف تقارنين بين النهج القيادي لدى الذكور والإناث؟
Appendix D: KU Human subjects’ approval IRB

January 8, 2014

Naimah Alhumaidhi
nalhumadhi@ku.edu

Dear Ms. Naimah Alhumaidhi:

On 1/8/2014, the IRB reviewed the following submission:

<table>
<thead>
<tr>
<th>Type of Review:</th>
<th>Initial Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of Study:</td>
<td>Job Satisfaction for Saudi Female Department Heads in Saudi Arabian Public Universities</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Naimah Alhumaidhi</td>
</tr>
<tr>
<td>IRB ID:</td>
<td>STUDY00000639</td>
</tr>
<tr>
<td>Funding:</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID:</td>
<td>None</td>
</tr>
</tbody>
</table>

The IRB approved the study on 1/8/2014.

1. Any significant change to the protocol requires a modification approval prior to altering the project.
2. Notify HSCL about any new investigators not named in original application. Note that new investigators must take the online tutorial at https://psc.drupal.ksu.edu/human_subjects_compliance_training.
3. Any injury to a subject because of the research procedure must be reported immediately.
4. When signed consent documents are required, the primary investigator must retain the signed consent documents for at least three years past completion of the research activity.

Please note university data security and handling requirements for your project: https://documents.ksu.edu/policies/IT/DataClassificationandHandlingProceduresGuide.htm

You must use the final, watermarked version of the consent form, available under the “Documents” tab in eCompliance.

Once you receive approval from cooperating institutions (King Saud and Princess Noura University) to conduct research, please upload copies of the approval letters into eCompliance.

Sincerely,

Stephanie Dyson Elms, MPA
IRB Administrator, KU Lawrence Campus
Appendix E: Approval letter of the Princess Noura University

**Kingdom of Saudi Arabia**
Ministry of Higher Education
Princess Nora Bint Abdul Rahman University

**Statement**

"حفظًا الله" سعادة الدكتورَة عميدة (كلية التربية، كلية العلوم، كلية الآداب، كلية علوم الحاسب، كلية الإدارة والأعمال، كلية الاقتصاد المنزلي، كلية التصميم والفنون، كلية التمريض، كلية الصحة وعلوم التأهيل، كلية الخدمة الاجتماعية، كلية الصيدلة، كلية اللغات والترجمة، كلية المجتمع)

السلام عليكم ورحمة الله وبركاته، وبعد:

ترفق لكم صورة من خطاب جامعة سكانس لورنس بالولايات المتحدة الأمريكية بخصوص ناشر المحميدي إحدى طالبات مرحلة الدكتوراه. وهي مساعدة إجراء دراسة بعنوان "الرعاية السكنية لروساء الأقسام الإناث في الجامعات الحكومية في المملكة العربية السعودية". وهي دراسة مقارنة بين جامعة الملك سعود وجامعة الأميرة نورة بنت عبدالرحمن.

لذا نأمل أن تكون تسهيل مهمتها في تنفيذ الاستبانات المرفقة من قبل رؤساء الأقسام من قبل الهيكلية المذكورة أعلاه.

شاكرين ومعذرين حسن تعاونكم.

**Signed**

1. د. نورة بنت حمد الشعلان

*The rest of the text is in Arabic.*
Appendix F: Approval letter of King Saud University

 heleh al-rckhm al-rckhm.

سعاده وكيل الجامعة للدراسات العليا والبحث العلمي بجامعة الملك سعود وفقه الله

السلام عليكم ورحمة الله وبركاته

تعبدون برقية استبانة طالبة الدكتوراه، نعيمه بنت ناصر الحميضي، بجامعة كانساس. لورنس، بالولايات المتحدة الأمريكية بعنوان "الرضا الوظيفي لروساء الأقسام الإناث في الجامعات الحكومية في المملكة العربية السعودية" وهي دراسة مقارنة بين جامعة الملك سعود وجامعة الأميرة ثورة بنت عبدالرحمن، في الرياض.

الحصول على درجة الدكتوراه في إدارة التعليم العالي.

أمل من سعادتك التكرم بالتوقيع بتسهيل المهمة.

والسلام عليكم ورحمة الله وبركاته

الباحثه
نعيمه بنت ناصر الحميضي

[Signature]
Appendix G: Letter of complete data collection in Princess Noura University

بناءً على خطاب عمادة البحث العلمي رقم 1099/ع وتوقيع بتاريخ 2/3/1435 هـ
بشأن البحث/ة تميمي المبيضي، نفيذكم بأنه تم توزيع الاستبانة على المعينة المطلوبة في يوم الأربعاء وتاريخ 5/2/1435 هـ.
وهذا للإحاطة.

عمادة البحث العلمي:

الاسم: 
التوقيع: 

1435/2/5

123
Appendix H: Letter of complete data collection in King Saud University

المملكة العربية السعودية
جامعة الملك سعود
وكالة الدراسات العليا والبحث العلمي

إفادة


وهذا للإحاطة.

مساعد وكيل الجامعة للدراسات العليا والبحث العلمي:

الاسم: د. ابراهيم بن كر العثمان
التوقیع: (الاسم)

جامعة الملك سعود