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Leadership and Empowerment of Saudi women in continuing education for sustainable development 2030

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Dedication

To the soul of the dearest men. Who gave me a love of knowledge
and success... Dad

To the most powerful woman, I've ever inherited my power... Mom
To my source of pride and who was confident in my journey and the
source of inspiration: Anan, Loujain, Omar, Reema, Rana

I love people to my heart.

To whom God has given me the blessing of their existence in my life:
my brothers.

And finally... To every woman who cherishes that she's a female.

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With blessings, Ameen.

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Abstract

Although perspectives on Women's leadership are constant in emphasizing women's underrepresentation in practically all political and economic spheres ,Very little is known about female leadership in nations throughout the world, notably in higher education in the Kingdom of Saudi Arabia. This has resulted in a void in the literature because one of the areas of work in which Saudi women have achieved progress is continuing education for sustainable development.

Despite significant social, religious, cultural, and organizational constraints, certain leaders in continuing education at colleges and institutions have broken past The Glass Ceiling. One of the goals of this study is to shine a light on women's leadership and empowerment via continuous education for long-term development in Saudi Arabia. The second goal of this work is to identify new research avenues for the future .The existing scarcity of empirical research on women's leadership in Saudi higher education .This may be important for other Middle Eastern and other locations.

Keywords: Leadership, Empowerment, Saudi Women, Continuing Education, Sustainable Development.

1 Introduction

1.1 Overview/Background

Undoubtedly, everyone has noted the transformations that have taken place in the past few years in terms of empowering and leading, Saudi women. This reflects the confidence of the Kingdom's leadership in women and the importance of empowering women to play an active role in society.

Women's empowerment was and remains a major goal in Saudi Arabia, drawing attention to the importance of empowering Saudi women in Vision 2030. (al-Ghamdi, 2022)

Saudi Arabia did not have a regular, organized educational system until 1925. Before that, the Arabian Peninsula had a traditional educational system known as Qutab.

Students attended to study Arabic reading and writing, as well as memorize the Qur'an. Initially, these institutions were reserved for males. Kuttabs were later "accessible to ladies at lesser levels" (Lipsky, 1959). Kuttab schools were often housed in the mosque or the instructor's home, with the teacher being the Imam of the mosque. Kuttab schools could be found across the Arabian Peninsula, except for the western and eastern regions, which were still dominated by the Ottoman Empire in the nineteenth century.

In addition, the Curriculum at Qutab schools occasionally includes foreign language and elementary mathematics in addition to Arabic and the Qur'an. (Al Salloom, 1996)

Despite the development and proliferation of Qutab, illiteracy was still prevalent throughout the Arabian Peninsula in the early twentieth century. When the first government-run schools were founded in Saudi Arabia in 1925, the Qutab system was formally supplanted. King Abdul-Aziz founded the first formally structured educational facility, the "Directorate of Education," the same year. Because there were not enough trained and educated personnel to form a distinct department at the time, the Directorate of Education was overseen by the Ministry of the Interior. In truth, due to Saudi Arabia's vastness and lack of financial resources at the time,

Egypt was approached for assistance not just for extra teaching aids, but also to help fund curriculum and restructure the Saudi educational system. The Saudi educational system was indirectly designed after the English educational system since the Egyptian educational model followed in the footsteps of the English educational model of the day. (Al Salloom, 1996)

Most instructors in Saudi Arabian schools were not appropriately prepared when public, government-sponsored schools in Saudi Arabia began to develop, and because of the great need for teachers in a fast-expanding educational system.

An "unqualified" teacher may not have a teaching credential, although he or she can read and write and may have finished elementary school. The first Saudi Teacher Institution was created in 1928 by the Saudi Directorate of Education to fulfill the growing

need for instructors in schools. In 1935, King Abdul-Aziz decided to send Saudi students to Egypt to study.

By 1951, 169 Saudi students were learning to become teachers in Egypt. Furthermore, due to a lack of educated Saudi professors, Egyptian aid was sought from three sources: (1) Egypt's Ministry of Education; (2) the General Directorate of Egypt's Al-Azhar Institution, an Islamic institution; and (3) personal relationships.

The lack of a national curriculum at the start of the King Abdul-Aziz period complicated matters even further. The "first curriculum applied in the Saudi era was designed in 1925 by Mohammed Al-Gussab," a Syrian. In 1932, the curriculum development method was altered twice and in 1935 primarily to concentrate on religion and Arabic language curriculum 3, as well as the establishment of health education and moral development curricula.

The awareness of illiteracy in Saudi Arabia grew in tandem with the expansion of the Saudi educational system. According to UNESCO estimates from 1950, more than 90% of the Saudi Arabian population was illiterate at the time. Reduced illiteracy was only one of the issues that prompted the Saudi leadership to wake up and make education one of its top priorities.

Other causes included the need to grow and develop the country's human resources as well as modernize the economy, both of which were seen to need training youngsters in labor market-specific skills. (Wiseman A. W., 2007) This ushered in a new era in Saudi Arabia The General Directorate of Education became the Ministry of

Education in 1953, when it assumed complete control of the primary, intermediate, and secondary male educational systems.

In the 1950s, as a result of complete government sponsorship and regulation of education in Saudi Arabia, and to encourage kids throughout the country to enroll in and attend school, the government made education free and provided monthly allowances to students from low-income households. Furthermore, all students received free transportation and textbooks. At the higher education level, all students received free living accommodations, and the government provided monthly allowances of around \$250 per month to all university students. As a result, as many pupils as possible took full advantage of these chances Saudi Arabia is seeing fast growth in both university enrolment and achievement.

The importance of empowering Saudi women in the concept of women's empowerment is to expand women's capacity to make strategic decisions about their lives within a specific framework. This is done through the improvement of women's social and political status, to achieve women's effective social participation. The concept of women now turns to the importance of empowering Saudi women in 2030.

The economic empowerment of Saudi women through small and medium-sized enterprises undoubtedly contributes to boosting the economy. There is no doubt that women's integration into the labor market will increase competitiveness and reduce unemployment rates, thereby strengthening the national economy, thus demonstrating the importance of empowering Saudi women in 2030.

Education and development are two sides of the same coin, so education is the main tool for the development of social, economic, cultural, and political. The spectacular development in science has contributed to Knowledge, application, and communication technology in increasing the gap between countries' requirements and capabilities. Their members had to reconsider the empowerment of their members and draw visions. more realistic objectives; To keep pace with the rapid changes in the world, empower all Individuals with different age groups, especially women, and review their rights for development Real and comprehensive. (Bari, 2005)

Women's issues and their development participation have been central to charters and conferences. International from the latter half of the twentieth century to date aimed at empowering participation in the development process in various areas. That development, which is based In any society over the human element and its effective energies, man is the foundation of process development.

As a key component of society, the lack or weakness of women's empowerment is A waste of human effectiveness and hinders development in society, which requires women to be on Awareness of the need for their empowerment in different spheres of life to achieve justice and community development. (Bari, 2005)

To integrate women into development, knowledge, and skills must be available to them. Empowerment and integration, as well as a range of mechanisms to overcome constraints of giving society sufficient and appropriate opportunities to contribute to development. As well as that Women's social programs play a role in providing them

with the necessary knowledge, skills, and abilities to contribute to the improvement of their society, reflected in subjective and societal changes. (JANSSENS, 2009)

Despite women's great place in societies, reports on Women's issues and the need for their advancement and empowerment to participate in the development of society remain a key component of Arab and international conferences; This may reflect women's suffering. Lack and waste of rights. Hence based on women's reality and problems We will address in this research the role of continuing education programs in women's empowerment. (Sarker & Nimai, 2002)

Saudi Arabian education policy is infused with Islamic Sharia principles, with a focus on upholding human dignity and supporting its residents' rights to adhere to Islamic beliefs. Geographically, Saudi Arabia is an ideal location for international markets, since it ranks first in the world's list of oil-producing and exporting economies (Aldossari, 2020).

As a result, Saudi Arabia set a high-priority budget of USD 51 billion for education and training in 2018. A committee was formed to oversee life-long education and training efforts in Saudi Arabia, as well as global citizenship principles and diverse cultural components. Saudi Arabia has diversified its options for attracting and investing in the nation under its Vision 2030 framework. (General Authority of Statistics Sustainable Development Goals (SDGs) in KSA (Status-Quo Statistical Report); General Authority of, 2018)

The goal of economic development Saudi Arabia's Vision 2030 goal is to lower the jobless rate to 7%. (General Authority of Statistics Sustainable Development Goals

(SDGs) in KSA (Status-Quo Statistical Report); General Authority of, 2018). This research applies constructivism features of the teaching and learning process to students as adult learners at the University of Hail in Saudi Arabia. It considers pupils to be learners if they acquire information in the classrooms during their academic careers.

To attain their future goals, the teachers improve their comprehension and capacity to cope with hurdles and conquer a range of problems. In general, people obtain new experiences as they go through their academic careers (Nuket & Cigdem, 2015).

Human beings create their knowledge and decide reality based on their experience, according to the constructivist learning paradigm (Richardson, 2003). Rather than discussing many standard ways of student-centered learning, the constructivism philosophy does so beyond traditional schooling and learning; a human adds fresh understanding to their knowledge. (Aldossari, 2020) (Nuket & Cigdem, 2015)

Knowledge, according to radical constructivism, is produced rather than perceived. The study used the philosophical point of view of ontology to match with created reality. Vygotsky stressed the cognitive approach to community development in which a kid develops and learns.

1.2 Problem Definition

The purpose of this paper is to review current theoretical papers, empirical studies, and practices in the literature to address the need to explore the concept of leadership and empowerment of Saudi women in Continuing Education for Sustainable Development 2030. With continuing education for sustainable development.

The current research seeks to answer specific questions related to entrepreneurship and women's empowerment.

Current initiatives for women's economic empowerment are insufficient to address all of the challenges that female entrepreneurs face. The emerging evidence from psychology and experimental economics on agency, mindset, and leadership demonstrates that for successful interventions to be transformative, they must go beyond basic access to financial and human capital and address key psychological, social, and skill constraints for women entrepreneurs.

Recent research from randomized control trials on various capital-based, training-based, and gender-based treatments presents viable initiatives to help women entrepreneurs.

The literature review in this current paper is expected to review and present the basic papers and the main ideas of some peripheral papers to ensure a deep and comprehensive view of the topic at the same time. Incorporating and critically analyzing previous research on leadership and empowerment of Saudi women.

1.3 Research Questions

The purpose of this study is to understand and explore the concept of leadership and empowerment of Saudi women in continuing education for sustainable development. The research contains many questions that need to be answered. The research will focus on the following questions:

- ✓ What is the concept of empowerment for Saudi women and what is its importance?

- ✓ What is the definition of leadership for Saudi women and how does it help them in sustainable development?
- ✓ What is the value of continuing education to obtain sustainable development?

1.3.1 Hypothesis

- ✓ H1: Leadership and empowerment affect Saudi women through continuing education to obtain sustainable development.
- ✓ H2: There is a positive relationship between leadership and empowerment of women and the development of sustainable development.

2 . Background and Literature Review

In response to these Educational and diplomatic issues, Saudi Arabia created Vision 2030, a national sustainable development policy, in 2016. The strategy was introduced on April 25, 2016, as a strategic road map to reach a more sustainable future under the supervision of Mohamed bin Salman (the current Saudi Crown Prince, Defense Minister, and Head of the Council of Economic and Developmental Affairs). This vision was inspired by and is based on, the UN General Assembly's 2030 Agenda and its Sustainable Development Goals (SDGs). On its official website, the Kingdom of Saudi Arabia explains Vision 2030 as follows:

Vision 2030 is a lofty yet attainable roadmap for a forward-thinking nation. It represents our long-term objectives and ambitions and is based on our country's distinct strengths and skills. It directs our goal toward a new stage of development, the creation

of a lively society in which all citizens may realize their aspirations, hopes, and ambitions for success in a thriving economy.

2.1 Saudi Arabia's Historical Profile Women and Education

Awareness of women's positions in Saudi society requires an understanding of Saudi Arabia's historical socioeconomic and political situations (Hamdan, 2005).

Gender politics and religion are intricately connected in this highly conservative country (Al-Rasheed, 2013).

While Saudi Arabia is governed by a monarchy, with a Council of Ministers appointed by the King to formulate and implement policies, the constitution is governed by a strict interpretation of Islamic law (A.E.H & B, 2010), one of the main features of which is the power struggle between the 'ulama [religious scholars] and the state. Women are typically at the center of controversy and discussion between the two. We investigate this First, in the case of female education.

When the present kingdom of Saudi Arabia was established in 1932, it was an impoverished country with just 12 schools and 700 pupils, educating only boys (Majed., 2011). The discovery of oil in 1938 resulted in exponential wealth growth, allowing some aristocratic families to move to other nations by the 1940s. As they did so, their attitudes toward females' education shifted, prompting many parents to enroll their daughters in informal schools upon their return to Saudi Arabia (Altorki, 1987). The Ministry of Education was established in 1953, and public schools for boys were established for the first time.

It was King Faisal and his wife, who tirelessly advocated for females' education. However, religious intellectuals objected strongly (Hamdan, 2005). Despite continued resistance from sections of religious experts who thought education would corrupt girls' morality and ruin the basis of the Saudi Muslim family, the first private school for females opened in Jeddah in 1956. (Geel, 2016). Although King Faisal and his wife were ardent supporters of women's rights, it took time to persuade the population, and it was only through the application of Islamic precepts that this was accomplished (Hamdan, 2005).

According to Hamdan (Hamdan, 2005), the King would answer objections by saying, 'Is there anything in the Holy Qur'an that prevents the education of women? He further added, 'We have no basis for contention, God forbids educating every Muslim man and woman'. It was only after they were satisfied that the girls' education conformed with Islam that they granted their assent, and only then would conservative households send their daughters to school (AlMunajjed, 1997).

In 1960, a school for females was established in Riyadh (Al Rawaf & Simmons, 1991). While this era marks the beginning of formal education for girls, it also marks the beginning of gender segregation, as well as the extensive development of women-only public spaces (Hamdan, 2005) (Geel, 2016), which has led to Saudi Arabia being dubbed the world's most gender-segregated nation. (Geel, 2016)

The gradual acceptance of schooling resulted in the development of higher education.

The first university, King Saud University, was created in 1957, and six more were built during the next twenty years, along with the foundation of the Saudi Ministry of Higher Education (Majed., 2011).

Women were granted access to higher education beginning in 1962, and the first women's college was created in 1970 to train female instructors (Alaugab, 2007).

Many more public and private universities and institutions for women followed (Al Alhareth, Al Dighrir, & Al Alhareth, 2015). However, it was not until 2002 that the Ministry of Education took over the management of female education. Before 2002, female education was overseen by the Department of Religious Guidance to ensure that it did not diverge from religious standards. Its initial goal was to "make women excellent spouses and mothers, as well as to train them for 'acceptable' vocations like teaching and nursing that were thought to suit their temperament" (Hamdan, 2005).

2.2 Participation of Women in Higher Education

Despite strong opposition to female education and fears that it would be ineffective and even hazardous, female education has expanded considerably in recent decades (Hamdan, 2005).

This is especially true when King Abdullah took the throne in 2005. (Pavan 2016). In reality, the country now has 36 universities (Education, Electronic Services. Available online, 2017).

E-learning has also grown in popularity, particularly among women who are unable to attend traditional higher education institutions. According to cultural norms, men and women are educated separately, and women's topics are more limited (Hamdan, 2005).

This is because it is socially taboo for women to pursue certain jobs and to study certain courses in school Mobaraki and Söderfeldt (A.E.H & B, 2010) discuss Saudi Arabia.

To overcome these constraints, many families send their girls overseas to study specialties that are not available to them (Hamdan, 2005). However, several limitations have been eased during the last decade; for example, women have been able to study law since 2007 (Meijer 2010), and the door was opened for the first woman to obtain a Master's degree in archaeology in 2009. (Al-Sudairy, 2017)

Some universities for males, such as King Fahad University of Petroleum and Minerals and the Islamic University, adhere to the gender segregation concept. Princess Nora bint Abdul Rahman University, which appointed the first female rector, made a female equal to male counterparts at other Saudi institutions for the first time.

the moment in the country's history (Miznah, 2015) The university is likewise totally staffed by women (Al-Sudairy, 2017). Some co-ed institutions have been established in recent years, but men and women are still separated into parts (campuses), one for men and one for women, and they study separately. Only one institution does not have segregation, allowing both male and female students to study together: King Abdullah University of Science and Technology (Education, Electronic Services. Available online, 2017).

The government has implemented reform initiatives to diversify revenue from oil and gas during the last decade. The government's massive expenditure on education suggests that it is a primary policy priority. For example, a five-year education plan was just unveiled. In 2014, the education industry was expected to be valued at 80 billion riyals, or \$21.33 billion. A large portion of this spending went toward higher education.

The King Abdullah Sponsorship Programme (KASP) was created in 2005. (Taylor & Albasri, 2014).

This program provides Saudi students with a variety of possibilities, including studying abroad in western nations such as the United Kingdom and the United States. Manali (Roel, 2010) says that there were around 150,109 males and 49,176 girls (roughly a 3:1 ratio) studying abroad based on the Saudi statistics yearbook for the years 2012-2013. According to the Ministry of Education Statistics Center (2017), 5165 females are pursuing a Ph.D. in a Western nation. This percentage represents 41.91% of Saudi students who Obtain a Ph.D. in a Western nation. Many Saudi women have achieved amazing educational advances, as evidenced by the exponential growth in the number of women pursuing bachelor's and postgraduate (Hamdan, 2005) (Education, Electronic Services. Available online, 2017).

2.3 Education as a Means of Sustainable Development in Saudi Arabia

There is an urgent need to design excellent educational curricula that encourage Educational stewardship and address concerns about sustainable development.

We have emphasized the critical relationship between education and progress toward sustainable development objectives, which is established in the idea of Education for Sustainable Development (or ESD) and recognized in the Kingdom of Saudi Arabia's Vision 2030. Before we begin our examination of ESD in the context of Saudi Arabia, we will quickly define this idea and its genesis. (Wals & A, 2017)

In the late twentieth century, the notion of "Sustainability Education" (SE) emerged, giving a broader and more holistic approach than EE. SE focused on social participation in concerns of sustainability and sustainable development. It strives to raise awareness of how our everyday actions influence both the world and future generations by broadening our understanding of the various, yet mutually interacting, components of sustainability, such as economics, culture, and ecology. (Cartea, 2005)

The modern understanding of "environmental and sustainability education" builds on these traditions, but incorporates a relational focus on "rethinking humanity's place in the world and global citizenship which engages values and principles to create more sustainable lifestyles " (Wals & A, 2017).

According to ESD should be implemented considered "a continuation of EE emphasizes social learning, whereas ESD emphasizes both individual and social learning. (Hume, 2015)

In the materials under consideration for this study, the terms EE and ESD are used interchangeably as synonyms. As a result, for this research, we will use ESD to refer to both ESD and EE.

In Study Antonio Cerone, and Donatella Persico The purpose of this research is to provide a founding statement for the International Symposiums on Educational Innovation and Sustainability (*InSuEdu*). We examine two interpretations of Innovation and Sustainability in Education:

(1) methodological and institutional sustainability.

(2) educational sustainability. processes of technology innovation in education, and the creation and deployment of innovative methods that might make education a critical factor driver of long-term development Following consideration of these two views, we take a quick look at the 10 submissions to the First International.

Symposium on Educational Innovation and Sustainability, and demonstrate how Their proposed remedies address one or all of these interpretations. (Cerone & Donatella Persico, 2014)

Study (Noha Aless'a..el)The purpose of this study is to investigate women's economic empowerment in Saudi Arabia by examining the existing state, obstacles, and future suggestions in line with Saudi Vision 2030.

The investigation used a questionnaire survey approach, and the sample included 903 Saudi women working in the public, private, or freelancing sectors across the country. The data were analyzed using the SPSS software package. The study's findings show that participants gave good feedback on women's economic empowerment, which is consistent with Saudi Vision 2030 activities aimed at women.

The study suggests raising knowledge about the importance of women's economic empowerment, improving salary equality, and creating awareness programs to encourage women to participate in Saudi Arabia's economic growth. The report has significance for politicians, business owners, and researchers who want to empower Saudi women and increase their involvement in national economic growth. (Noha A. Alessa, Hebah S. Shalhoob, & Haya A. Almugarry, 2022)

Study Denmark, This paper provides an overview of leadership studies, with an emphasis on Women in positions of leadership The most latest approach to researching leaders by Examining followers is covered, but the study on how leaders work is limited.

are viewed as authoritative by their subordinates A work in progress, Denmark, Nielson, and Scholl's study shows that stereotypes exist. Women were more likely to hold grudges against female leaders. Nonetheless, The capacity of a leader to empower others changes with rank. The greater the rank, the more powerful that someone is thought to be, whether female or male or a man Nonetheless, males had more positions of power than women. More women in high-level roles are required to effectively judge leadership. as well as empowerment. (I.Denmark, 1993)

in a study by Shane Murray, A fundamental question for scholars is what obstacles stand in the way of a sustainable transition. This exploratory and advocacy-based study is going undertaken in a rural part of Norway. There were two interrelated questions: Q1. What are the barriers to improving the region's ecologically sustainable performance? Q2. What measures could improve the region's overall competitiveness and environmental sustainability? (Murray, 2016)

The first research concentrated on the technological aspects of sociotechnical transformation. However, unanticipated socio-blockages emerge, necessitating a second iteration of the research focusing on the socio-blockages. The study found that environmental leaders want to promote sustainability in the region, but they lack the expertise to connect economic, sociological, and economic sustainability action and policy.

The difficulties of transformation are exacerbated by a strong aversion to allowing outsiders to take on leadership roles. Prior study has shown that Norway's oil sector crowds out innovation in other fields, according to regional-level data. The discoveries in the region might be precursors to national-level stumbling blocks. The study addresses several potential methods for accelerating a lasting shift without the agony that is often required to initiate one. The key results are that Norwegian net exports, which are primarily raw materials, may be driven by long-established policies that have resulted in a firmly ingrained worldview of resource discovery rather than resource value addition as the priority of the economy. When compared to its peers, the Norwegian innovation system is not exceptionally inventive.

When compared to its neighbors, Norway's innovation system is not very inventive, and the process of reforming culture to be so is not being addressed as policy or outcomes. Finally, various viewpoints and world views that may aid in the facilitation of a transformation spark are presented, as well as future study ideas. (Murray, 2016)

This study (Education for Sustainable Development in Saudi Arabia: A Critical Discourse Analysis of Media and Government Policy Documents., 2022) seeks to bridge the gap between rhetoric and reality, particularly about Saudi Arabia's Vision 2030 integration of sustainable development into education policies, planning, and curriculum. To accomplish this, we investigate the discourse and framing of education for sustainable development in two types of sources: government policy documents and news coverage in three major Saudi print media outlets. We begin by presenting an overview of Saudi Arabia's climate and sustainability concerns and answers, concentrating on the national Vision 2030 strategy and the role of education for

sustainable development within that goal. Following that, we detail the methodological framework and methodologies utilized to conduct this study, which is based on critical discourse.

The outcomes of our research of six policy papers and 27 news pieces that were kept in our screening procedure are then presented. Finally, our discussion and conclusions draw insights about Vision 2030 and the broader ESD and sustainability landscape in Saudi Arabia from textual analysis (what is said by KSA and national media); discourse analysis (what is implied or conveyed through these texts); and broader social practice analysis (how these texts are used).

Two further layers depict the mentality and governance that exist predominate throughout the nation). Understanding these processes allows us to say, enables us to discover possibilities and barriers to significant advancements in sustainable development - and Education as a catalyst for long-term growth in the nation. (Essa,2022)

In the study Alexander W. Wiseman, The influence of socioeconomic status and school resource indicators on 8th-grade math and science success in the Kingdom of Saudi Arabia is investigated in this study. According to the assessments presented here, the Kingdom's national averages in most of these areas fell below those of comparable nations in the region and worldwide in 2003, providing Saudi educational officials with numerous clear goals for educational reform and development. The validity and significance of globally comparable evaluations such as TIMSS are also examined, with special reference to the Saudi situation. (Wiseman A. W., 2008)

2.4 Education and National Development in Saudi Arabia

As of late, the Western media has been enchanted by the Saudi Arabian advanced education initiative (Krieger, 2007), yet minimal international consideration has yet centered around the development endeavors coordinated towards the essential and auxiliary education frameworks in the Kingdom of Saudi Arabia.

The significance of the Kingdom as the foundation of the Bay area can't be ignored in areas of international legislative issues and financial matters, yet the Kingdom's education framework has been to a great extent overlooked both abroad and in Saudi Arabia itself. One indicator of a requirement for Saudi educational policymakers to think cautiously about the bearing the Kingdom of Saudi Arabia's educational framework is going is the way that Saudi Arabia scored among the least among all participating countries on the accomplishment segments of the 2003 Patterns in International Math and Science Study (TIMSS).

The absolute most standard associates with arithmetic accomplishment are financial status (Pastry specialist, Goesling, and LeTendre, 2002) and school assets (Redfield, 2001). Also, the significance of education to public development is notable, particularly since the approach of present day mass schooling. In this way, the nearly low exhibition by Saudi understudies given the significance and speed of public development in Saudi Arabia is a worry for educational policymakers and public development specialists in the Kingdom. (Becker, 1975) (Fuller & Rubinson, R, 1992)

This review investigates the job that schooling plays in the social and monetary development of the Kingdom of Saudi Arabia both by and large and considers new proof from the Patterns in International Math and Science Study directed in 2003.

1. The reason for this study is to give an outline of the development of mass education in Saudi Arabia.
2. feature the commitment present-day mass schooling has made toward public development in Saudi Arabia.
3. measure understudies' accounted financial status and revealed accessible school assets in Saudi Arabia.
4. gauge the effect that these factors have on math and science accomplishment in Saudi Arabia.
5. analyze Saudi levels on these indicators between gatherings within Saudi Arabia and with different nations in the district and the world.

2.5 Education Challenges And Vision 2030 In Saudi Arabia

Education is the single most significant factor fundamental for financial growth, technological headway, social complexity, solid living, and fruitful political governance. Nelson Mandela attests to this and states that education is the most impressive weapon, you can use to change the world.

Education is more than speaking a foreign language. It incorporates the advancement of abilities and capabilities fundamental to navigating through life,

productively and successfully performing useful undertakings fundamental to the upkeep and improvement of life.

In this way must be taken a gander at circularly and not similarly as a cycle where youngsters or people go through an educational system. It must be seen from the finished result additionally; the graduates who will emerge from this framework and the subsequent society made. (Education, Sustainable Development, 2020)

Education for Practical Turn of events (ESD) processes underscores the requirement for stimulating a comprehensive, integrated and interdisciplinary way to deal with developing the knowledge and abilities required for a reasonable future as well as changes in values, conduct, and ways of life.

This expects us to reorient education frameworks, strategies and practices to engage everybody, young and old, to simply decide and act in socially suitable and locally important ways of addressing the issues that compromise our normal future. This paper talks about current challenges present government recommendations for change and suggests a way forward toward achieving an enabling education sector that backings maintainable improvement continuously in 2030, in this manner making Kenya a high-pay country.

The strategy utilized was exploratory review and the creators used record examination as a strategy for information assortment by reviewing existing significant reports from the service of education such as service of education reports; commissions and panels' reports; and strategy papers.

The concentrate likewise gathered essential information using group conversations and individual key witnesses from key service establishments. Information was investigated using subjective procedures and introduced using depiction. There is along these lines need to fundamentally investigate our education framework to present efficiencies and guarantee it delivers graduates exceptional for cutting edge valuable encounters.

Education assumes an essential part in contributing to human asset advancement and the country's general financial improvement in today's globalizing setting. Education is seen as 'adding worth' to venture peculiarities of 'lifelong learning'.

In the same way as other different nations in Africa, Kenya has since its freedom in 1963, put vigorously in education as a means of social and monetary advancement for her populace. An informed populace is indispensable to implementing an educated and economical turn of events. In reality, a public manageability plan can be upgraded or restricted by the degree of education achieved by the country's residents.

Advancement choices, particularly "greener" improvement choices, expand as education increments. Education is likewise fundamental to improving personal satisfaction. Education raises the monetary status of families; it further develops life conditions, brings down newborn child death rates, and works on the educational accomplishment of the future, in this manner raising the cutting edge's opportunities for monetary and social prosperity.

ESD (Education for reasonable advancement) conveys with it the inborn thought of implementing programs that are locally applicable and socially proper. Education is a

fundamental tool for achieving maintainability. Individuals all over the planet recognize that ongoing financial advancement patterns are not economical and that public mindfulness, education, and training are vital to moving society toward manageability.

2.6 Sustainable Education (SE) in Saudi Arabia

The objectives of the ministry in terms of sustainable development:

1. Providing all sectors of society with comprehensive, equitable, and high-quality education to develop the essential human capital.
2. Encouraging lifelong learning and offering chances for all.
3. Continuing to strive for gender equity in teaching and learning opportunities.
4. Contribute to the achievement of long-term, inclusive, and equitable economic growth.
5. Creating a supportive infrastructure in the education sector.
6. Raising the degree of intellectual and scientific creation to develop a tributary that achieves balance in natural resource usage.

Contribute to the preservation of the environment and natural resources for future generations by tackling climate change and opposing the deterioration of natural habitats. (Education, Sustainable Development, 2020)

In addition to the programs and initiatives on which the Ministerium is working to realize its vision of building a knowledge society on the foundation of a knowledge-based economy, the Ministerium has launched several initiatives to transition to E-Government; this is due to their direct connection to sustainable development, and these initiatives are represented in:

- E-learning and distance education.
- Saudi Arabian Digital Library.
- Open the education data.
- Electronic community participation.
- Development of Absolventinnen and scholarly and practical qualifications.
- Environmental initiatives to reduce natural resource consumption.

Contributions of the government and electronic services to achieving sustainable development

In addition to sustainable development programs and projects, the Ministry incorporates electronic and mobile government concepts and principles into all of its initiatives, projects, and strategies through the following actions:

- Transparency and accountability are reinforced by open remarks.
- Electronic transactions reinforce skill and effectiveness.
- By proposing specialties and institutions for students interested in studying abroad, we can provide high-quality education and fair chances to develop society's knowledge and skills.
- Increasing electronic societal participation.
- Achieving economic sustainability through encouraging scientific research, intellectual creation, and human capital development.
- Green governance will be realized through a comprehensive shift to Electronic technologies and a reduction in natural resource usage.
-

Gender equality must be ensured in terms of educational possibilities made possible by the execution of the Custodian of the Two Holy Mosques Scholarship Program Facilitating electronic licensing of private education to stimulate private investment in private education and contribute to long-term economic prosperity.

- Positively impacting social development by relocating more instructors to jobs closer to their homes.
- Initiatives And Projects Related To The Sustainable Development Goals
- The newly established university system.
- Initiative to assist university-based scientific research and development.
- Early childhood development.
- Update the list of educational opportunities.
- And both male and female instructors' professional growth.
- Determine which pupils are talented.

2.7 Teaching Leadership

Historically, the general purpose of higher education has been to prepare students to be future leaders. According to (Varshney, 2015), Saudi Arabia is experiencing a dearth of indigenous business executives. The government must address the growing leadership gap due to the youthful population, the disparity between growth and available talent in the private sector, and rising unemployment rates.

The shortage of Saudi leaders in the private sector is worrying and will worsen over the next five years as 2.5 million more Saudis enter the labor market (Varshney, 2015). As a result, colleges in the Kingdom must prepare students to be future leaders.

The number of persons participating in leadership programs on college and university campuses throughout the world is increasing (Alexander, 2011). As a result, the argument over whether leaders are born or formed appears to be shifting in favor of the view that much of what we think of as leadership can be taught (Prince, 2010). A thorough theory of how to produce leaders, on the other hand, cannot be found. As a minimum, such a theory would identify important leadership knowledge, abilities, values, attitudes, and beliefs (Alexander, 2011). It would have to inform us what we can learn and what we may be born with. The theory may identify stages of leadership development that are related to various capacities and points of view within the learning leader (Alexander, 2011).

The first question that must be addressed is what outcomes are desired. If the goal is simply to provide learners with information about leadership, then teaching leadership is mostly a question of teaching in the same manner that other courses in the humanities and social and behavioral sciences are taught (Alexander, 2011). According to, the major focus would be on identifying a province of knowledge and then engaging students in thinking about the subject.

Before you enter a classroom to teach, educators must first understand their audience or do an audience analysis. Goals and goals are required to assess whether pupils have learned the material. Students should have a firm understanding.

The of the lesson. They should be enthusiastic about participating and extremely corporative. (W & Svinicki, 2006)claimed that discussions, fishbowls, and interviews are

among the ways that might help break the deadly monotony of lectures day after day. Furthermore, fostering conversation and active learning may liven up the classroom. dialogues either between academic members or between student teams (Hamdan, 2005).

It is also critical to establish learning communities. Integrating or creating relevant learning communities can help students combine leadership ideas and practices. It requires deliberate thinking and design to transform educational settings from constraining to engaging environments. Creating a culture that values student voices, challenging conversation, peer accountability, and spontaneity needs deliberate action beginning with the first class or workshop session (Owen, Komives, Lucas, & McMahan, 2007).

According to (W & Svinicki, 2006), while creating an agenda can help keep your class moving from activity to activity, what you aim to accomplish in those time segments must be clear in your mind and must aid in the attainment of the overall goals and objectives of your subject. Teaching leadership should include the following strategies:

- (a) establishing objectives.
- (b) planning learning experiences.
- (c) identifying needed materials.
- (d) evaluating student progress.

According to (W & Svinicki, 2006), students who are motivated to learn pick projects that will help them learn more, work hard at those tasks, and persevere in the face of hardship to achieve their goals. As a result, it should come as no surprise that

motivation is a key factor to consider if we wish to improve student learning, According to (Owen, Komives, Lucas, & McMahon, 2007), it is equally critical that leadership educators devote time and attention to structuring reflection activities to improve student learning. Effective reflection exercises are related to specific class learning objectives.

curriculum, occur frequently throughout the course or program and provide opportunities for feedback and assessment. Incorporating reflection activities into conversations and examinations boosts student happiness while also optimizing learning gains from the event. Reflection allows students to generate knowledge while also allowing the facilitator to assess student learning (Owen, Komives, Lucas, & McMahon, 2007)

The more we can connect the classroom to other aspects of the campus leadership environment, the more effective leadership education will be. We can also send students outside campus to get leadership experience in contexts where students are entrusted with leadership duties, including internships, service learning, and part-time jobs (Alexander, 2011)

2.8 The shifting tides toward women's empowerment in Saudi Arabia

Empowering Saudi women is at the heart of the kingdom's "Vision 2030" reform program with the stated goal of increasing women's participation in the labor market from 22 percent to 30 percent. Since its introduction in 2016, rapid and comprehensive growth and development have occurred across the country to empower women, reshaping the economic, social, and cultural landscape to make Saudi Arabia a more inclusive country. (Moussa, 2022)

Several new rules and regulations have been introduced since 2018 leading to the empowerment of women since the introduction of Saudi Vision 2030. Some of the major changes include:

- ✓ Provide security: The anti-harassment law came into effect in 2018, imposing tough penalties, including up to 5 years in prison and heavy fines, for those convicted.
- ✓ The right to drive: In June 2018, women in Saudi Arabia were able to drive on the roads for the first time. Since then, some 2.5 million female drivers have taken to the road, which has also increased car sales by 9 percent annually.
- ✓ Freedom to travel: This rule was announced in 2019 to allow women over the age of 21 to apply for a passport and travel freely without the permission of a male guardian.
- ✓ The right to live alone: Since June 2021, Saudi women have been able to remain and/or live on their own without needing the consent of a male guardian.
- ✓ The right to military service: In February 2018, the Kingdom of Saudi Arabia granted women the opportunity to work in the security services of the Ministry of Interior, criminal investigation departments, security patrols, and Hajj security. In October 2019, the kingdom opened the armed forces to women, allowing them to serve in the private ranks of first class, corporal, or sergeant.
- ✓ Access to Sports: This is another milestone for women to be able to do outdoor sports, walking, cycling, horseback riding, playing golf, soccer, and other sports. In 2018, Saudi Arabia also allowed families to enter sports stadiums for the first time,

in a historic move that opened the previously male-only venues to women and children.

- ✓ Equality in the workplace: Saudi Arabia sets equal pay for all sexes, prohibits discrimination in wages, position, and working hours, and enables women to integrate and engage in commercial activities without obtaining the prior consent of a male guardian.

The aforementioned legislative changes have made it easier for women to join the workforce, especially with the introduction of various initiatives from the Ministry of Human Resources and Social Development (MHRSD) aimed at creating more job opportunities for women.

Women's entrepreneurship is continuously promoted through various empowerment programs and as a result, 17.7 percent of the Kingdom's women participate in entrepreneurial activity, compared to 17 percent of Saudi men.

All the changes introduced under Vision 2030 are aimed at diversifying the country, and these changes have already been seen in full force across the Kingdom. Saudi women can now be found working in almost all sectors; From aviation, airports, hospitality, consumer goods, finance, and much more.

2.9 Empowering women in education and training

The laws of the Kingdom of Saudi Arabia provide all people the right to free education without discrimination, and the Kingdom of Saudi Arabia believes in the

importance of education in achieving sustainable development and the achievement of human rights, as follows:

- ✓ The need for "the state's supply of public education and a commitment to fighting illiteracy" is stipulated in the legislation.
- ✓ The general education policy stressed free education in all of its forms and levels, and it reinforced the state's general development strategy, which aspires to promote a healthy partnership between men and women.
- ✓ It is vital to mention that the Kingdom's educational system is fundamentally built on gender equality in all of its components, whether it is connected to entrance and enrollment methods, curriculum, tests, teacher and lecturer credentials, or the quality of study facilities and equipment.
- ✓ Rather, women have gotten greater attention in this aspect, such as positive discrimination, especially with the continuous creation of several university cities for females, such as Princess Noura bint Abdulrahman University and Imam Muhammad bin Saud University and King Saud University. (Arabia, Women Empowerment, 2022)

Saudi women are anticipated to play a critical part in the Kingdom of Saudi Arabia's (KSA's) Vision 2030 development agenda. Over the last decade, the number of Saudi women in executive roles has climbed, with the Kingdom recently passing new measures aimed at improving its record of female empowerment and gender equality.

According to the World Bank study "Women, Business, and the Law 2020," Saudi Arabia was the top reformer internationally in the previous year. Saudi Arabia enacted ground-breaking changes to increase women's economic engagement. The legislation granted women over the age of 21 the right to travel and move freely.

The orders lifted limits on women's freedom to leave the house and equalized women's right to select where they live. They barred gender discrimination in work, the firing of pregnant women, and gender discrimination in credit access. The decrees established pension equality by equalizing retirement ages for men and women and implementing maternity leave pension care credits.

These daring measures dramatically altered Saudi women's legal rights. The changes have already benefited 5.5 million Saudi women over the age of 21, and they will continue to do so for future generations. (Bank, 2020)

2.10 Women and Social Empowerment

Entrepreneurship is a socio-spatially embedded activity, and the masculinities assigned a normative role in entrepreneurship development policies are manifestations of the social construction of gender, time, location, economics, and culture (Harrison, Leitch, & McAdam, 2020)

According to (Ojediran & Anderson, 2020), empowering women should include the social environment in which entrepreneurship happens since it is socially interwoven and may be viewed as a social activity with economic consequences. (Haugh & Talwar, 2014) studied the connections between social entrepreneurship, women's empowerment, and social transformation.

The social order has shifted as a result of innovative business methods that have aided women's economic activity (Osei & Zhuang, 2020) investigated female entrepreneurship as a means of empowering women, which has ramifications for performance and productivity. Relational social capital and social innovation.

(Murray, 2016) credit women's empowerment to social entrepreneurship, which outperformed non-governmental groups while having the same capacity to promote women's empowerment. Studies on the way by which women in the business sector are empowered and supported, (Khanna, 2019) claimed that women should be empowered and supported in their growth through social entrepreneurship. have taken the initiative to push rural women to show their worth.

This is consistent with the claims made by (Venugopalan , Bastian , & Viswanathan, 2021) that capacity-building and social inclusion initiatives might empower women in India. Argyrou, as well as encouraged female participation in social entrepreneurship activities, which might lead to job possibilities that help eliminate present barriers and effectively guarantee that women's right to work is achieved. (Kumari, 2020) , and others have used social media to empower women and encourage women entrepreneurs, as it has become a powerful platform for the discussion of women's rights, as well as to encourage the government and policymakers to increase commitments and formulate policies for gender equality.

2.11 Leadership and Sustainable Development

There are several definitions of leadership. There is no unambiguous consensus on what it means to be a leader in all situations, particularly because the emergence of

leaders is sometimes situational, sometimes temporary, and sometimes permanent (Spotts, 1976)

(Michener, DeLamater, & Schwartz, 1990) , described leadership as a process that occurs in organizations in which one person affects and regulates the conduct of the other members toward some shared purpose. The capacity of the leader to plan, coordinate, and regulate the group's activities is a critical component of effective group performance.

Others have suggested that leaders have certain intrinsic personality qualities or certain talents that distinguish them as leaders. Despite several attempts at definition, all leadership theories have one feature: a leader exerts greater influence inside a group than any other group member (Denmark, 1977).

The methods for developing leadership are as diverse as the definitions. The group may designate someone they believe has leadership potential. If no one else is willing or available to execute the function, the role may be inherited or taken by default. To obtain a desired leadership position, physical or economic power may be utilized (R, 1979).

To say that the struggles of the previous few years have underlined the importance of sustainability in securing the future would be an understatement. The emergence of the COVID-19 pandemic, climate change, and rising economic inequality has underlined the need for an increased collaborative effort to generate genuine, long-term change, uniting global leaders and changemakers. This may be observed in the international endeavor to meet the UN Sustainable Development Goals.

Saudi Arabia, led by local leaders, is one of several countries setting the standard for meaningful enterprise and community building. The country is well on its way to becoming a hub of sustainability, according to Vision 2030, a strategic framework developed to strengthen the Kingdom's economy and communities. (Alanazi, 2022)

The term "electronic commerce" refers to the sale of electronic goods. With the UN climate summit in Egypt just around the corner, it has never been more crucial for businesses to embrace a more sustainable attitude. This provides business leaders a chance to take up the role of partners to the Kingdom: facilitators of government objectives and initiatives such as the Saudi Green Initiative.

We can work together to assist the Kingdom to grow its dependence on sustainable energy, offset emissions, and safeguard the environment to attain net-zero emissions by 2060. IBM is dedicated to attaining net-zero greenhouse gas emissions by 2030. Our environmental justice programs, such as the IBM Sustainability Accelerator, assist companies and communities in their efforts to protect the environment (Vision, 2017).

However, to achieve these goals, corporate executives must first understand and sympathize with their employees with sustainability and appreciate the requirement for innovation across the business strategy.

Leaders may use this knowledge to improve corporate agility and response to external shocks. Furthermore, artificial intelligence-driven insights will promote future predictive planning rather than looking back. (al-Ghamdi, 2022)

There is a rising understanding of the relevance of AI in Saudi Arabia, with sophisticated technologies regarded as critical to expediting the country's transition from an oil and gas-dependent economy to a knowledge-based service economy.

Sustainability is a mentality change and demands major leadership, behavioral, metrics, collaboration, and operational model change. Technology innovation is a critical facilitator of long-term business models.

Putting sustainability at the center of business models necessitates complex strategic change, and leaders must be ready to compromise. Businesses must be willing to distill their business models down to a basic set of values and question who they are, how they operate, who they collaborate with, and how they produce and share value with the community.

Almost every day, early adopters demonstrate progress toward sustainable solutions. The difficulty is figuring out how to scale quickly enough. Unfortunately, many incumbents will stumble and continue to rely on their present capabilities and assets, disregarding future-proofing chances.

2.12 Effective Leadership for Sustainable Development

On September 25, 2015, during the United Nations Sustainable Development Summit, more than 150 world leaders accepted the 2030 Agenda for Sustainable Development, which included the Sustainable Development Goals (SDGs). The 17 new Sustainable Development Goals, also known as the Global Goals, aim to eradicate poverty, hunger, and inequality, combat climate change and environmental degradation,

enhance access to health and education, and establish strong institutions and partnerships. (Khalid Bahauddin & Nayma Iftakhar, 2018)

✓ The performance of any country in attempting to attain the SDGs is heavily reliant on leadership. To satisfy the demands and expectations of the citizens, effective leadership translates into sensible public policy design and implementation, as well as competent public service delivery.

✓ To achieve the SDGs, governments, the corporate sector, society, and individual individuals must all work together. Innovative leadership and management will be required for businesses across all sectors to incorporate these development goals into strategic plans and operational actions to achieve the 2030 targets.

✓ Leadership for sustainable development is based on a living processes worldview, not a mechanical one. Complex biological systems exhibit sustainable features and patterns, which might offer essential leadership methods .

✓ Resilience, flexibility, awareness, creativity, and connections are characteristics of living processes (how all life acts). Given the inherent paradoxes of our world, the existence of numerous realities, and the fact that living organisms organize and adapt to their circumstances, leadership must be adaptable, flexible, self-renewing, robust, and willing to change Only living systems can learn and be intelligent.

✓ Today's problems for achieving sustainable development are complex and interdependent, and everyone must work together to create a more

sustainable future. Instead of giving a solution, leaders must "provide chances for individuals to join together and discover their answers".

✓ Leaders must not only bring people together and inspire creative engagement, but they must also assist individuals in embracing a relationship with uncertainty, turbulence, and emergence. (L, 2022)

✓ Working together to solve challenges may be tough, even when ideals are agreed upon. Leaders must recognize that the stress, conflict, and uncertainty that arises from disagreements may create tremendous opportunity for the creative creation of effective solutions.

✓ For sustainable development, the world requires effective leadership, and this leadership necessitates an inner process in which a leader must first be founded on a knowledge of self and a relational vision of the world to effectively engage with others to impact change. Furthermore, reflection is defined as "knowing one's talents, knowledge, and beliefs within the framework of community groupings".

✓ This reflective process provides feedback loops for development and change cycles. As a result, leadership should be viewed as an inclusive, collaborative, and reflective process based on principles and ethics. To accomplish the SDGs, national and corporate leaders must embrace leadership styles that foster a feeling of shared responsibility for the objectives' achievement.

2.13 Sustainable Innovation In Education

Education Innovation and Sustainability can be viewed and examined in a variety of ways. This paper focuses on two main interpretations discussed during the 1st

International Symposium on Innovation and Sustainability in Education, which took place on October 1, 2012, in Thessaloniki, Greece.

The first interpretation is the long-term viability of the educational innovation processes that Technology Enhanced Learning (TEL) research is attempting to assist. Following this view, we examine various desired mechanisms of innovative change in education and highlight obstacles in the dissemination and durability of such innovations in Sect. (Donatella & Antonio, 2014)

We examine Rogers' model of technical innovation dissemination and find that it does not completely apply to most educational advances. Then we emphasize the, On the one hand, there is a stark contrast between the present explosion of learning technologies and the tremendous potential that social networks and accompanying tools provide for informal learning, and on the other, the slowly expanding world of formal learning. This discrepancy highlights a barrier to educational innovation and sustainability. In this context, we outline critical characteristics that must be recognized and addressed to enable and ensure the sustainability of innovation in formal learning. (Hage & Meeus, 2009)

Education innovation may be defined as a change process in which something new occurs in educational institutions, the way individuals learn, or the contexts in which learning occurs.

This transformation process may be driven by external, uncontrollable influences, but it may also be endogenous, that is, led or affected by entities participating in the learning process, such as learners and teachers. Although innovation and change are

not inherently positive concepts (innovation can be for the better or the worse), the actions of teachers and learners (as well as researchers) are generally intended to drive innovation in education toward some kind of desirable change, such as making learning more engaging making the learning process more effective or efficient Making the learning process more effective simply means attempting to get better learning outcomes: deeper understanding, longer retention, and more solid or otherwise worthwhile learning. Making it more efficient involves attempting to get the same outcomes with less work, either on the part of the instructor or the learners.

This is what we do, for example, when we create tools to assist instructors in their job unless such tools are intended to influence teachers' behavior. (Valerie Hannon, Alec Patton, & Julie Temperley, 2011)

teaching methods Using industry language, these two types of innovation may be classified as product innovation, where the product is the result of the learning process, and process innovation, which is the invention of methodological and support components of the learning process. However, the line between the two notions is somewhat blurred in education since it is difficult to modify the process without changing the result and vice versa.

When we adjust the procedure, the results in terms of learning outcomes are frequently extremely different. Thus, when we strive to bring innovation to education, we normally aim for a different balance, a lower cost/benefit ratio between the effort put in and the learning results gained, where expenses are minimized, Controlled and maximized benefits are both operationalized in qualitative, not simply quantitative ways.

To summarize, in this view, education innovation is a change process, hopefully, driven by external and internal variables, to improve circumstances.

for learning and/or the outcomes of learning, but also for moving from small-scale, experimental techniques to larger-scale, sustainable innovation. Over the last decade, TEL research has committed significant effort to better understanding the costs and advantages of those creative processes made possible by technology and its practically universal availability (Donatella & Antonio, 2014)

However, in many situations, more emphasis has been placed on the gains made available by technological affordances than on the costs in terms of the work required on the part of instructors, institutions, and learners to sustain the new processes. This is reasonable, considering that we all know that bootstrapping an enterprise is difficult. The process of invention generally pays off only in the long run.

2.14 Leadership is formed via the development

The most crucial parts of production are the human factor and qualified coach and desist. It is viewed here as a process of suggesting a Group of persons carry out the aim to find the leader. The dedication to satisfying the requirements of the school and the founder is the cornerstone of educational leadership.

This occurs as a result of service objectives and service personnel who endeavor to achieve these goals. They have a game an active part in all elements of the administrative process to improve its effectiveness in achieving its objectives. It is obvious from the preceding that leadership is vital in administration, and this function in

highlighting the In comparison to other aspects. The leadership is concentrating on integrating organizational and human components as well as the social growth of the administrative process. (Holley, 1983)

If we take a critical look, we can see that leadership cannot thrive in a vacuum, which confirms all current theories of leadership that successful leadership is to deliver results. Interaction with the commander linked with the leader plays an important function in the creation of those working with him.

As a result, we conclude that the leader is accountable for achieving efficient performance and effectiveness while using the least amount of energy and spending the least amount of money. As a result, we may underline the significance of studying leadership patterns, where They comprise the technique and how the commander works with his subordinates, where the commander is the style of leadership. That has not been a key determinant in the success or failure of institutions in general, and educational institutions, in particular, That has not been the leader of a crucial role in the behavior of teachers in providing an effective scientific environment in the School. (Faraj Feki, 1981)

The Commander must be fully aware that the practices carried out by the thought that it is the best, that achieve what is best for students, and those that should create Models to emphasize the importance of relationships based on justice, and care, and must be understood by Commander that these actions have consequences for the entire system, and Understanding these things will allow any leader to cooperate with all those who are involved with wire Education, and, to completely fulfill its potential and become

fully conscious of the young people here. They were linked to others in the complicated network of relationships.

2.15 Education as a Tool for Sustainable Development

2.15.1 Long-Term Development

Sustainable development is a tough term to describe; it is also constantly developing, making it much more challenging. The Brundtland Commission is credited with one of the first definitions of sustainable development: "Sustainable development is a development that satisfies the demands of the present without jeopardizing future generations' ability to satisfy their own needs".

The environment, society, and economy are widely believed to be the three components of sustainable development. These three regions' well-being is interconnected, not distinct. A healthy, affluent civilization, for example, relies on a healthy environment to provide its residents with food and resources, safe drinking water, and clean air.

The sustainability paradigm disputes the claim that casualties in Environmental and social effects of economic progress are unavoidable and acceptable. As a result, the authors see sustainability as a paradigm for envisioning a future in which environmental, sociological, and economic factors are balanced in the pursuit of progress and enhanced quality of life.

2.15.2 Sustainable Development Principles

Many countries and people have pondered the meaning of sustainable development beyond a one-sentence description. The Rio Declaration on Environment

and Development expands on the concept by stating 18 sustainability principles.
(McKeown, 2002)

- People have the right to a healthy and productive existence in harmony with nature, and Today's development must not jeopardize the development and environmental demands of future generations.

- Nations have the sovereign right to utilize their resources, but only if they do not harm the environment outside their boundaries.

- Nations must adopt international legislation to give compensation for harm caused by activities under their control to regions outside their boundaries.

- Nations shall safeguard the environment using a precautionary approach. When there is a risk of significant or irreparable damage, scientific uncertainty must be considered.

- To achieve sustainable development, environmental protection must be seen as an integrated element of the development process, rather than as a separate entity.

- To achieve sustainable development and fulfill the needs of the majority of people, poverty must be eradicated and inequities in living standards reduced across the globe.

- Nations must work together to maintain, defend, and restore the Earth's ecosystem's health and integrity.

- Because of the stresses, their societies exert on the global environment, as well as the technology and financial resources they command, developed

nations recognize the responsibility they share in the international pursuit of sustainable development.

- Countries must decrease and remove unsustainable patterns. of production and consumption, as well as the promotion of proper demographic policies

- Environmental challenges are best addressed when all concerned persons work together. Nations must make environmental information publicly available to enable and encourage public knowledge and engagement.

- Nations must implement strong environmental regulations and build national legislation governing culpability for pollution and other environmental harm victims.

- Nations must consider the environmental effect of planned actions that are likely to have a major negative impact where they have power.

2.15.3 History of Education for Sustainable Development

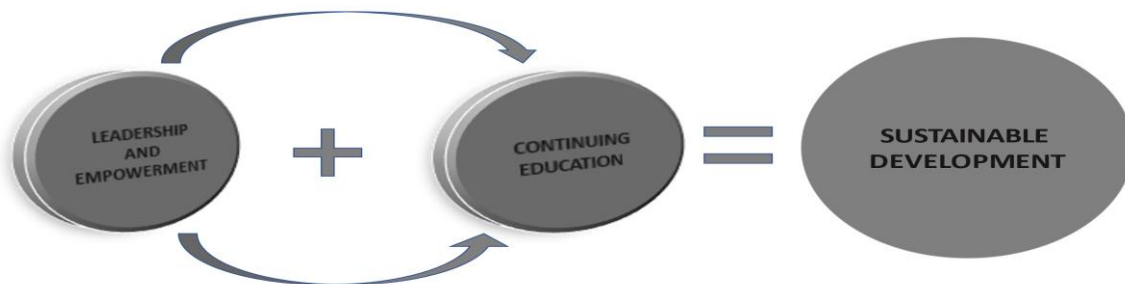
Since the UN General Assembly initially adopted sustainable development in 1987, the parallel notion of education to assist sustainable development has been studied. From 1987 through 1992, the notion of sustainable development grew as committees debated, negotiated, and drafted Agenda 21's 40 chapters. The first views on ESD were documented in Agenda 21's Chapter 36, "Promoting Education, Public Awareness, and Training." (McKeown, 2002)

ESD, unlike other education movements, was started by persons outside of the education community. Indeed, worldwide political and economic forums provided a significant impetus for ESD (e.g., the United Nations, Organization for Economic Co-

operation and Development, and Organization of American States). (Marco, Lisa, Senan, Alexander, & Julia, 2017)

As the notion of sustainable development was debated and developed, it became clear that education is critical to sustainability. Outsiders to the education community continue to shape ESD in many nations.

In these circumstances, the principles and substance of ESD are produced by ministries such as the environment and health and then distributed to educators. Conceptual development without educator participation is a challenge acknowledged by both international organizations and educators. (Essa ,2021)



2.15.4 Education as a Means for Sustainable Development in Saudi Arabia

Education as a Tool for Long-Term Development in Saudi Arabia, It is critical to design a high-quality educational curriculum that encourages environmental stewardship and addresses concerns of sustainable development.

We have emphasized the critical relationship between education and progress toward sustainable development objectives, which is established in the idea of Education for Sustainable Development (or ESD) and recognized in the Kingdom of Saudi Arabia's Vision 2030.

The phrase "Environmental Education" (EE) first appeared in the 1970s, to promote awareness of the many forms of (Arjen E. J. Wals & Aaron Benavot, 2017) In the late twentieth century, the notion of "Sustainability Education" (SE) emerged, giving a broader and more holistic approach than EE. SE focused on social participation in concerns of sustainability and sustainable development.

It strives to raise awareness of how our everyday actions influence both the world and future generations by broadening our understanding of the various, yet mutually interacting, components of sustainability, such as economics, culture, ecology, and environment. Finally, the modern understanding of "Environmental and Sustainability Education" (ESD) builds these traditions but incorporates a relational focus on "rethinking humanity's place in the world and global citizenship" Wals & Benavot, (Wals & A, 2017) which engages values and principles to create more sustainable lifestyles. According to Carter (2005), ESD should be regarded as "a continuation of EE". EE concentrates on social learning, whereas ESD focuses on both individual and social learning. (Therese Hume & John Barry, 2015)

The materials being examined for the EE and ESD are used interchangeably as synonyms in this study. As a result, for this research, we will use ESD to refer to both ESD and EE.

In terms of the practical integration of ESD into national education systems, the United Nations Economic Commission for Europe (UNECE) provides guidelines on a three-phase implementation strategy to assist nations in managing this integration across all levels of the system (UNECE, 2009). The first phase is inventory and planning, which entails "a study of present policies, legal and operational frameworks, financing mechanisms, and educational activities, as well as the identification of any bottlenecks or gaps" UNECE. (UNECE, 2009)

The second part involves developing and executing the ESD policy. The last stage is the review and assessment of the ESD strategy and its execution.

According to its First Voluntary National Review on Sustainable Development, presented to the UN High-Level Political Forum in 2018, Saudi Arabia has always believed in the potential of education, allocating the necessary attention and resources to use education as an enabler. As a result, a "Royal Order was issued to include the SDGs into education curricula" was issued to enable the achievement of the Saudi 2030 Vision through education by raising awareness and understanding of sustainability concepts and issues. This intends to integrate ESD into public school courses and would entail going far beyond what is now available and is currently offered in public schools.

2.16 Prince Mohammad Bin Fahd University

PMU is a private institution of higher learning in the Kingdom of Saudi Arabia's eastern region. PMU has adopted the Texas International Educational Consortium and created the North American educational model and system (i.e., administrative, financial, and academic programs) (TIEC). TIEC is a Texas-based partnership of 32

American colleges. PMU has established an ambitious route for a university that values the traditions and culture of the Kingdom of Saudi Arabia while delivering higher education through cutting-edge contemporary teaching techniques and technology. The following is the university's vision. The founders' ambition for the university is for it to be a distinctive and outstanding higher education institution that contributes to: preparing future leaders in numerous fields :

- Future leaders in diverse sectors of human knowledge and its application are being prepared.
- Intelligence enrichment and development.
- Exploring new approaches and technology to attain its goals.
- Bridging the gap between academic and commercial societies

all degree programs and courses are taught in English. Except for those devoted to Arabic language and Islamic studies, According to Walker (Walker & S, 2004), many people regard Saudi Arabia as a predominantly male-dominated country with significant societal hurdles that make women in leadership posts difficult. PMU was founded in 2006 to educate both Saudi natives and international students. What distinguishes PMU and its location in Saudi Arabia is that it established both a female and a male campus. The male campus houses male academic facilities in the Colleges of Engineering, Business Administration, and Information Technology. It also has male education facilities for the Preparation Year Program and the PMU Core Curriculum.

The university administrative building is located in the campus's male section. The female campus contains female academic facilities in the Colleges of Business

Administration and Information Technology, as well as the Department of Interior Design. It also includes female instruction facilities for the Preparation Year Program and the PMU Core Curriculum. This means that not only males but also women will have the opportunity to be educated.

A core of academic disciplines is required for all degree programs. PMU competencies, writing, and oral communication, mathematics, natural and physical sciences, and social and behavioral sciences are among the disciplines covered.

Furthermore, all students complete the PMU Assessment Capstone Series of courses, in which they show their ability to synthesize and apply the knowledge and skills they have acquired. The capstone series' curriculum differs depending on the major PMU teaches six key competencies to its students, one of which is leadership and teamwork.

According to (Hamdan, 2005), women accounted for 47% of overall undergraduate enrollment in Saudi colleges and universities in 1990. PMU graduated its first female students in 2010. With this in mind, its graduates must be equipped to assume leadership roles in their respective academic fields.

2.17 Women and Higher Education Leadership

Higher education is one sector of work where women have achieved significant success, reflecting the surge of educated women in Saudi Arabia. Female professors climbed from 4700 in 2003/2004 to over 19,600 in 2008/2009. This equates to a 7200 rise to roughly

During the same period, there were 48,800 male lecturers (Al Alhareth, Al Dighrir, & Al Alhareth, 2015). Because women make up a reasonable share of higher education faculty and education is gender segregated, chances for women aspiring to higher education leadership should exist, particularly in female-only colleges (Alomair, 2015).

Female academics, on the other hand, tend to have lower-level posts. As a result, as in other nations, the increase in educated Of many countries, the rise in educated women and female faculty has not been matched by an increase in the share of women in higher education leadership. (Al-Ohali & Al-Mehrej, 2012)

It is especially surprising, given that education is one of the few jobs open to women, that fewer women have ascended to positions of educational leadership. One significant argument is that women have historically been barred from holding positions of leadership in Saudi Arabia due to severe cultural customs and statutory prohibitions. According to Smith historically, the school system itself subordinated women to "guarantee that at every level of competence and leadership, there will be a place for them that is lower and submissive to the positions of males".

A ruling announced by King Abdullah bin Abdul-Aziz of Saudi Arabia gave Saudi women the right to lead on February 23, 2009. The King promptly declared that the first woman to be appointed to a leadership post would be Deputy Minister of Education, emphasizing the King's commitment to expanding women's leadership and, in particular, women's involvement in educational leadership. (Vision, 2017)

As a result, a variety of government measures have developed to address the shortage of female leaders. The Shura Council, which nominated 30 women members

in 2015, is an important example. It is also worth noting that the ladies were not segregated in a separate location, but instead participated with the males and were welcomed by the King and his Crown Princess. Another significant event is that Women have been able to run for office in municipal elections since 2015. Nine hundred women ran in the first elections, resulting in 37 women holding seats. (Almarhaby, 2018)

2.18 Expected Contributions of the Study

As qualitative research, this study aims to evaluate the integration of ESD concepts. The Saudi educational system is reflected in the vision of the Kingdom of Saudi Arabia to lead and empower Saudi women in education for sustainable development. More specifically, this study asks: “How does continuing education contribute to the leadership and empowerment of Saudi women to develop sustainable development for 2030”?

The findings of this paper can help Saudi decision-makers and women, as well as assist In the Saudi education sector, in recognition of the necessity of integrating education for sustainable development in Current educational plans and curricula. Thus, it may contribute to a better understanding, How education policy can help support ESD initiatives and strategies.

This study aims to support the maturation and progress of the Saudi education system To implement a possible roadmap for specifically integrating sustainable development into that educational system.

2.19 Outline of the thesis structure

The organization of this manuscript-based thesis contains five main sections. This first section, the introduction (chapter one); has provided readers with a background of my connection to this paper and gives definitions of the concepts used here, namely sustainable development and education for sustainable development, and introduced the importance of ESD.

The second section (chapter two) presents the context of the research paper and a review of key literature. The third section (chapter three) highlights the methodological framework of the paper as well as the data collection and analysis methods. Chapter four is the manuscript formatted for submission to be published. The last section (Chapter five) delivers the final concluding thoughts and recommendations. It is also important to note that since chapter four is meant to stand alone as a publishable manuscript, there will be some unavoidable repetition between chapter four and the other sections in this thesis- for example, the overall literature review and methods sections and the ones found inside the manuscript.

2.20 Models for Saudi women leaders

Saudi women have demonstrated their resolve and endurance in several key situations throughout history. From managing an army to founding a rocket firm, Saudi women are at the height of achieving remarkable. With so many recent events in Saudi Arabia, like Riyadh's designation as the 2020 Arab women's capital, it's critical to

maintain track of the impactful advances that Saudi women have made in leading their sectors.

2.20.1 Basmah Al-Mayman

Basmah Abdulaziz Al-Mayman has served as Regional Director for the Middle East at the United Nations World Tourism Organization (UNWTO) since November 2018. With over 17 years of experience in the Saudi Commission for Tourism and National Heritage (SCTH), Ms. Al-Mayman was the manager of the International Organizations & Committees Department and the United Nations World Tourism Organization (UNWTO) focal point. (UNWTO, 2021)

As one of the founders of tourism in Saudi Arabia, Al-Mayman focused on developing and strengthening Saudi relations with international organizations such as United Nations (UN) agencies and the World Bank, UNESCO, and UNDP, as well as other international organizations and stakeholders in the fields of tourism, heritage, museums, antiquities, and built heritage. She also served as a member of the Board of Directors of The UNWTO Sustainable Tourism – Eliminating Poverty Initiative for the Middle East Region and was a founding member of the Program and Budget Committee of the Executive Council of the same region.

Forbes Middle East published a 2020 “power list” ranking 100 leading businesswomen, with Ms Al-Mayman ranking 13th and the only woman representing tourism in the Arab world. She is also the first GCC national to hold a leading position

at the UNWTO and the first woman to lead the Middle East region in the history of this international organization (UNWTO, 2021).

Ms. Al-Mayman holds a Bachelor's degree in English Literature and Linguistics from King Saud University, and an MBA from Al Faisal University, in cooperation with the University of Oxford, where she studied Entrepreneurship and Comparative Managerial Issues. She also studied several advanced specialized courses in International Relations, International law, and Economic and Diplomatic affairs at the Prince Saud Al-Faisal Institute of Diplomatic Studies at the Foreign Ministry in Saudi Arabia. She is fluent in both Arabic and English.

2.20.2 Ghada AlMutairi

Ghada is a Professor of Pharmaceutical Chemistry as well as the Director of Excellence in Nanomedicine and Engineering at the University of California, San Diego (UCSD). She received more than 10 patents and countless awards and honors focusing on her contributions and inventions in nanomedicine and pharmaceutical sciences.

In 2005, she received her Ph.D. in materials chemistry from the University of California, Riverside, with a concentration on electron delocalization and molecular structure. From 2005 to 2008, she pursued postdoctoral studies in chemistry and chemical engineering at the University of California, Berkeley. Almutairi collaborated with Jean Fréchet at Berkeley, where she created many nanoprobe for in vivo

molecular imaging. She joined the University of California, San Diego in 2008 and has been the director of excellence in Nanomedicine ever since. (Piercey, 2012)

Her scholarly contributions to Pharmaceutical Sciences during her career are noted below:

- The first polymeric nanoparticle that releases the medication in response to hydrogen peroxide concentrations indicative of inflammation was introduced.
- The first near-infrared-degradable polymer was developed, allowing for the precise remotely controlled distribution of molecules.
- A novel activatable MRI agent with exceptional contrast between "on" and "off" states was developed.
- When exposed to moderate acid, a polymeric nanoparticle is rapidly degraded, allowing transport to the cytosol.

Almutairi is a 2016 Kavli Fellow who has earned various accolades and prizes for her work on "Chemically Amplified Response Strategies for Medical Sciences," including the NIH director's new innovator award in 2009[6]. Almutairi's remarkable discovery was recognized by Congress by US NIH director Francis Collins as one of the four most important American technological discoveries of 2012. was founded by Almutairi. (Nietzel, 2021)

2.20.3 Princess Haifa Al-Muqrin

Princess Haifa is the Permanent Representative of Saudi Arabia to the Director of the United Nations Educational, Scientific and Cultural Organization (UNESCO). She first worked at the Department of Economics at King Saud University, then moved to work at the United Nations Development Program as a project officer. She mainly focuses on social work and promoting friendship and coexistence between Saudi Arabia and the rest of the world. (NEWS, 2020)

Al-Mogrin earned a BA in Economics from King Saud University in 2000. She received her MA in Economics from SOAS in 2007. In 2009, she started working as a part-time lecturer in the Department of Economics at King Saud University, before switching careers to work for the United Nations Development Programme (UNDP). She joined the UNDP as a program analyst in 2013. (NEWS, 2020)

Al-Mogrin was appointed Head of Sustainable Development Goals by the Ministry of Economy and Planning in 2016. She was appointed Deputy Minister for Sustainable Development in 2017. She was promoted to Assistant Deputy Minister for G20 Affairs in 2018. She will lead the G20 Development Working Group in 2020 .

Al-Mogrin was appointed as Saudi Arabia's permanent representative to the United Nations Educational, Scientific, and Cultural Organization in January 2020. Organization for Scientific and Cultural Research (UNESCO).

Upon her appointment, she submitted her credentials to UNESCO Director-General Audrey Azoulay. Her appointment represented a new milestone for a Saudi woman. Promoting the Arabic language within UNESCO's cultural heritage frameworks is an important aspect of her responsibility. She was also essential in UNESCO's recognition of al Sadu as part of Saudi Arabia's intangible cultural heritage. Emirates Woman named her "one of the most prominent persons in Saudi Arabia" in 2020. (NEWS, 2020)

2.20.4 Mishaal Ashemimry

Mishaal is the first woman in the GCC to ever become an aerospace engineer. She works as a Professor in the Mechanical and Aerospace Engineering Department at the University of Miami. At the age of 26, she established her own rocket company, MISHAAL Aerospace, where she focuses on designing and building rockets to launch small satellites. Mishaal also works on spreading knowledge online, where she gives introductory talks and useful tips to aspiring youth.

Ashemimry is an aeronautical engineer, entrepreneur in the aerospace industry, commercial pilot, speaker, and influencer. She is the GCC's first female aircraft engineer. Ashemimry is now a special advisor to the CEO of the SSC, with a major emphasis on strengthening Saudi Arabia's involvement in the global space industry. She formerly worked for Northrop Grumman as a Space Nuclear Power and Propulsion Consultant.

At the age of 26, she started MISHAAL Aerospace, a launch vehicle firm focusing on the launch of small satellites (500 kg or less) into Low Earth Orbit. She formerly worked at Raytheon Missile Systems' Aerodynamics Department, where she contributed to 22 different rocket programs. Aerodynamics, wind tunnel testing, vehicle design, predictive simulation, and analysis are among her professional experiences and areas of specialization Analysis of rocket stage separation, with a significant emphasis on computational tool development. (International Astronautical Congress 2022, 2022)

2.20.5 Princess Noura Bint Faisal

Princess Noura Bint Faisal is the founder of Saudi Fashion Week. Aiming to give exposure to local designers, she founded Art Week to enhance their quality of work and reach international standards. The Princess now works as an advisor to the Saudi Ministry of Culture. (NUGALI, 2018)

Princess Noura bint Faisal bin Saud bin Muhammad Al Saud, born in 1988 AD, is the founder of the Saudi Fashion Week and the Saudi Fashion Society in the Kingdom of Saudi Arabia 2018 AD. She announced the launch of the first official Saudi Fashion Week under the auspices of the General Authority for Culture. She is the honorary president of the Arab Fashion Council in Riyadh, the largest non-profit council in the world that specializes in fashion and fashion affairs and represents 22 Arab countries. (Muthu & Gardetti, 2022)

He announced the opening of his regional office in the city of Riyadh, and his appointment as honorary chairman of the council. In addition to her native Arabic,

Princess Noura speaks three other languages, namely English, French, and Japanese fluently.

2.20.6 Rania Nashar

Rania is the former CEO of Samba Financial Group and part of the Forbes list of the 100 Most Powerful Women. She began her career with Samba as soon as she obtained her Bachelor's degree in Computer Science and Information Technology from King Saud University. She works nowadays as an advisor at the Public Investment Fund (PIF). (Arabia, Rania Nashar CEO, Samba Financial Group, 2019)

Nashar is the first female CEO of Samba Financial Group, a Saudi commercial bank. She takes over as CEO at a time when Saudi Arabia is implementing measures to promote gender equality as part of its Vision 2030 .Samba Financial Group is the third-largest bank in Saudi Arabia in terms of assets. Nashar formerly served on the board of Samba's global markets division and has over 20 years of commercial banking expertise.

2.20.7 Princess Reema Bint Bandar

Princess Reema is the first Saudi woman to become the Ambassador to the United States. She is renowned for her vocal advocacy for women's empowerment in the Kingdom and has worked in diverse fields to ensure that. Princess Reema is also a permanent member of UNESCO and was nominated to become a member of the

International Olympic Committee. (HER ROYAL HIGHNESS PRINCESS REEMA BINT BANDAR AL-SAUD, 2022)

Reema bint Bandar Al Saud (born 15 February 1975) is the Saudi Arabian ambassador to the United States and a member of the House of Saud. She was appointed ambassador on February 23, 2019, making her the country's first female diplomat. She has been an advocate for female empowerment and has fought to increase possibilities for Saudi women in the Kingdom.

Awards and Recognition :

- Reema bint Bandar was named a Young Global Leader by the World Economic Forum in Davos in 2015.
- She was designated a Foreign Policy Magazine Global Thinker Mogul in 2014.
- She attended the Academy of Achievement's 51st International Achievement Summit in 2014 as a Leadership and Innovation Delegate.

2.21 Cultural aspects in Saudi Arabia

Religious traditions strengthen the societal restrictions that influence Saudi women's perceptions and experiences of leadership. Many of the women in the research struggled to perceive themselves as leaders because they had been socialized to consider themselves inferior to men. "Women incorrectly assume they are weak, sensitive, and incapable of doing difficult activities," one participant stated. This is what we have been taught from an early age."

As a result of this, women are hesitant to take on leadership roles for fear of jeopardizing their reputations. "We avoid anything that might result in our reputation

being damaged," said one participant. We avoid any career changes things our relatives, friends, and neighbors will disdain. Our reputation is too valuable to risk". This was exemplified further by one lady who stated her desire to enter politics.

Yet she claimed that she was apprehensive of doing so as such a move "may get me murdered."

This woman spoke strongly about changing religious rules that restrict women, but she was afraid of the consequences of such a bold step. As a result of the influence of religious regulations on the society in which they live, there is evidence that women in Saudi Arabia are considerably inhibited from assuming leadership roles.

The findings also show that women and men are separated in the workplace. Women's possibilities are influenced by the job. Women and men are supposed to work separately in Saudi Arabia, which includes sex-segregated work environments, including distinct institutions for 'women exclusively' such as schools, colleges, banks, and hospitals.

This has resulted in a lack of sufficient infrastructure to accommodate women, as hiring women necessitates whole new facilities, conference rooms, and entrances. Inadequate access to secure, dependable public or private mobility is another infrastructural deficiency. Women face logistical challenges going to and from work in a country where women are not permitted to drive. "Finding a cab or a regular driver is expensive and typically unfeasible," one person remarked. Many women struggle to travel to and from work because they are unable to drive.

They are discouraged from taking on positions that require them to travel. As a result of the isolation and distinction that characterize Saudi society, women's capacity to move into and remain in positions of leadership is hampered.

Organizational Methods

The majority of respondents (two-thirds) identified organizational procedures as a major barrier to women's leadership opportunities. Participants discussed being discriminated against in terms of selection, training, and growth.

Interviewees stated that they were not encouraged to go for training since it was assumed that when they married, they would leave their jobs and have children.

Professional development activities were attended by less than a quarter of the participants (22%). Far fewer had created a personal development plan (10%) or received advice or help from a mentor (5%).

Participants also stated that their chances of being promoted to a leadership position were restricted. One responder stated how 'women are passed over for promotion. they are not recognized as being\nable to command departments'. Participants speculated that this was due to Saudi Arabia's male-dominated leadership culture, which prevents women from being promoted to leadership posts despite their aptitude. "My supervisor gives me fantastic performance ratings but refuses to grant me a wage rise or promotion because I am a woman," one participant stated. Interviewees also claimed that job placements were frequently dependent on an individual's ties and family networks rather than personal credentials and competencies. As one participant put it, "women from well-connected, rich, or influential families."

"women from well-connected, rich, or influential households have more opportunities than those that are less fortunate". This implies that class and prestige may be as relevant as gender in influencing women's access to leadership roles.

The lack of chance to make decisions in organizational life, according to interviewees, is also a key hurdle for women trying to climb into prominent positions. "Women in Saudi influence but do not make choices," one attendee stated. They must rely on males to make judgments". All interviewees saw this as a significant impediment to their capacity to be good leaders. (Katlin Omair, 2008)

Inadequate HR assistance was indicated as another organizational concern in the findings. Participants discussed 'outdated' HR rules and processes for women. They also voiced their dissatisfaction with HR's lack of assistance in making women in leadership roles the rule rather than the exception.

One respondent described it as needing to, "make women in leadership appear unremarkable and normal,\ but we need the aid from HR to make this happen". Such statements demonstrate that organizations mirror wider social ideas that a woman's duty is essentially that of a caregiver at home, and that there is open hostility to women ascending into leadership roles.

Thus, the research findings show that the antecedents that influence women entering into leadership roles include social, religious, cultural, and organizational. The findings also provide weight to the concept that women's leadership experience in Saudi is concerned with "power interactions between various social groups and around cleavages like race, class, gender, and sexuality," as described (Elamin, Cundiff, & omair, 2010).

According to the present study, women in Saudi Arabia depend on a variety of relationships for their leadership practice, including their relationships with themselves, others, places, and jobs.

3 .Methodological Framework

The paper is based on desk research that included searching online academic databases and Using the google search engine for source material. We evaluated the scope, content, and accuracy as well as The authority and relevance of the articles, reports, and web-based materials used in this next paper.

Guidelines for finding, retrieving, and evaluating web-based research and information .Most of the sources were from the journals reviewed by the researcher. We completed those reports in the region, when applicable.

We were particularly committed to providing a platform for local studies conducted in Saudi Arabia however, we have relied on The mainstream literature, in places, explore whether any of the obstacles to women's leadership bear Similarity to barriers identified in Saudi Arabia.

In terms of our status as researchers and our experience in the course of the study, it is important To clarify that the first author of this paper is a Saudi woman who is a researcher in the UK, with research interests in educational leadership and management in Saudi Arabia.

3.1 Resolution stability

The stability of the questionnaire means that it gives the same result when it is redistributed more than once under the same terms and conditions, meaning that it gives

close, unchanged readings when used each time during certain periods, because the oscillating tool cannot be relied upon or its results are taken into account, otherwise the results will be invalid Reassuring and misleading. The stability of the study questionnaire was verified by using the consistency method, and this type of stability refers to the strength of the correlation between the paragraphs in the study tool, using the Cronbach Alpha coefficient, and the following is explained in Table 1.

Table 1: Results of the stability coefficient test by Cronbach alpha method on the two axes of the study

Interlocutors	Number of paragraphs	Alpha Kropnach Value
Independent Change: Leadership and Empowerment of Saudi Women	6	0.716
Variable: Education for Sustainable Development	6	0.729
Total Degree of Stability	12	0.803

It is clear from the results shown in Table 1 that the value of Cronbach's alpha coefficient was good on the two axes of the study, and amounted to 0.716 the for the variable of leadership and the empowerment of Saudi women, and 0.729 for the variable of education for sustainable development, while the value of the alpha coefficient for total stability was 0.803, and these values are acceptable and indicate that the scale has a high degree of stability.

Table 2: Independent Study Variable Identification Questions (Leadership and Empowerment of Saudi Women)

opinion direction	standard deviation	average	I agree	I disagree	I do not agree	Strongly Disagree		paragraphs
Strongly Disagree	0.561	3.38	23	30	2	0	repetition	Do you think that empowering Saudi women in higher and continuing education has an impact on sustainable development?
			41.8%	54.5%	3.6%	0%	percent	
Strongly Disagree	0.631	3.44	28	23	4	0	repetition	Do you think that the participation of women in the processes of social and educational development is a fundamental issue for the growth of the vision of the Kingdom of Saudi Arabia?
			50.9%	41.8%	7.3%	0%	percent	
I agree	0.790	3.07	18	24	12	1	repetition	Do you think that the increasing interest in the importance of the role that women can play coincides with the emergence of a category of women who support their families as a result of the absence of the head of the family?
			32.7%	43.6%	21.8%	1.8%	percent	
I agree	0.731	3.15	18	28	8	1	repetition	It is important that empowerment now becomes a right of women to participate in development, opportunities, and decision-making, as the United Nations did.
			32.7%	50.9%	14.5%	1.8%	percent	
Strongly Disagree	0.584	3.35	22	30	3	0	repetition	Do you think that the economic empowerment of Saudi women through small and medium enterprises contributes to strengthening the economy?
			40.0%	54.5%	5.5%	0%	percent	
I agree	0.668	3.13	16	30	9	0	repetition	Do you think that one of the goals of finding a leader is a dedication to meeting the requirements of the ?..school
			29.1%	54.5%	16.4%	0%	percent	
Strongly Disagree	0.396	3.25	The mean and standard deviation of the dimension					

variable of leadership and empowerment of Saudi women, and 0.729 for the variable of education for sustainable development, while the value of the alpha coefficient for total stability was 0.803, and these values are acceptable. This indicates that the scale has a high degree of stability.

3.2 Descriptive analysis of the independent variable

The results of Table 2 show the frequencies, arithmetic averages, and standard deviations for the questions of the independent variable (leadership and empowerment of Saudi women).

It is clear from the results of Table 2 that the arithmetic mean of the items of the independent study variable (entrepreneurship and empowerment of Saudi women) ranged from 3.07 to 3.44 on the quadruple Likert scale, and the total value of the arithmetic mean for the dimension was 3.25, which indicates that the opinion trend of the participants in the questionnaire He was in strong agreement on the importance of leadership and empowerment of Saudi women, as the paragraph came first and reads: "Do you think that women's participation in the processes of social and educational development is a fundamental issue for the growth of the vision of the Kingdom of Saudi Arabia?" With an arithmetic mean of 3.44 and a standard deviation of 0.631, the paragraph reads: "Do you think that the increasing interest in the importance of the role that women can play in cultural, social, economic, and educational development coincides with the emergence of a group of women who support their families as a result of the absence of the head of the family for any reason? Ex: death, divorce? In the last place, with an arithmetic mean of 3.07 and a standard deviation of 0.790, which reflects the extent of convergence in the views of the study sample on the independent study variable (leadership and empowerment of Saudi women).

Descriptive analysis of the dependent variable

The results of Table 3 show the frequencies, arithmetic means, and standard deviations of the questions of the dependent variable (Education for Sustainable Development).

Table 3 Questions of the questionnaire for the dependent variable of the study (education for sustainable development)

opinion direction	standard deviation	average	agree	agree	Don't agree	Strongly Disagree		paragraphs
agree	0.573	3.47	28	25	2	0	repetition	A vision was established for the Kingdom of Saudi Arabia in 2030 to develop sustainable development... Do you think that Saudi women have a role in this development?
			50.9%	45.5%	3.6%	0%	percent	
I agree	0.805	2.98	14	29	9	3	repetition	Do you think that the idea of continuing to educate Saudi women is sufficient for them to become pioneering and empowered women?
			25.5%	52.7%	16.4%	5.5%	percent	
agree	0.571	3.55	32	21	2	0	repetition	Are you with the continuing education of women for the empowerment and leadership of Saudi women and a better future for them?
			58.2%	38.2%	3.6%	0%	percent	
I agree	0.769	3.24	23	23	8	1	repetition	Are you with women's issues and conditions recently getting increased attention by all countries as part of the development process?
			41.8%	41.8%	14.5%	1.8%	percent	
agree	0.560	3.27	18	34	3	0	repetition	Do you believe that educational innovation and technology-enhanced learning (TEL) contribute to enabling and ensuring sustainable development?
			32.7%	61.8%	5.5%	0%	percent	
agree	0.658	3.42	28	28	22	5	repetition	Do you think discussing and developing the idea of sustainable development is crucial to achieving sustainability?
			50.9%	50.9%	40.0%	9.1%	percent	
agree	0.392	3.32	The mean and standard deviation of the dimension					

Strongly Disagree, 1.75 -2.49 Disagree, 2.50 -3.24 Agree, 3.25 -4 Strongly Agree)

It is clear from the results of Table No. 3 that the arithmetic means of the items of the dependent variable of the study (education for sustainable development) ranged from 2.98 to 3.55 on the quadruple Likert scale, and the total value of the arithmetic mean for the dimension was 3.32, which indicates that the opinion trend of the participants in The questionnaire was in strong agreement on the importance of education for sustainable development, as the paragraph came first and read: "Are you with the continuous education of women for the empowerment and leadership of Saudi women and a better future for them?" With an arithmetic mean of 3.55 and a standard deviation of 0.571, the paragraph reads: "Do you think that the idea of continuing to educate Saudi women is sufficient for them to become entrepreneurs and empowered?" ranked last, with an arithmetic mean of 2.98 and a standard deviation of 0.805, which reflects the extent of convergence in the views of the study sample on the dependent study variable (education for sustainable development).

The association between the two variables of the study

The Pearson correlation coefficient test was used to find out the degree of correlation between the independent study variable (leadership and empowerment of Saudi women) and the dependent study variable (education for sustainable development), and the results of Table 4 show this.

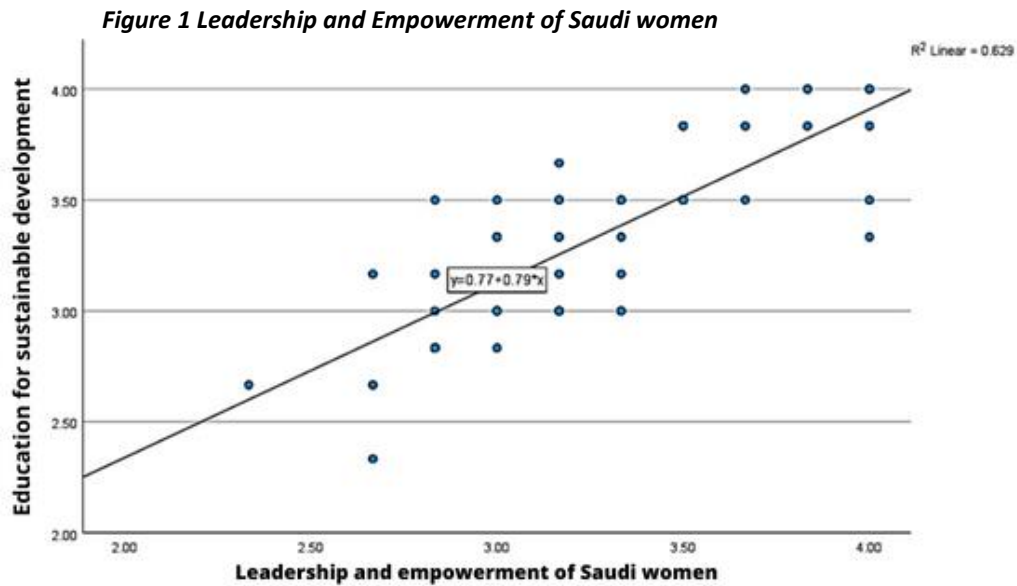
Table 4: The results of the correlation coefficient between the two variables of the study

Education for sustainable development	Leadership and Empowerment of Saudi women		study variables
---------------------------------------	---	--	-----------------

.793**	1	Correlation coefficient r	Leadership and Empowerment of Saudi women
0.000		Indicative level	
1	.793**	Correlation coefficient r	Education for sustainable development
	0.000	Indicative level	

The results of table 4 illustrate the nature of the relationship between the study's variables, as evidenced by results; There is a strong and statistically significant positive relationship between the independent study variable (pioneering and empowering Saudi women) and the study variable (Education for Sustainable Development). The Pearson engagement factor was 0.793, with a statistical D level of 0.000, confirming a strong positive correlation between leadership and Saudi women's empowerment and education for sustainable development.

Impact Study



To determine the degree and extent of the impact of the independent study variable (pioneering and empowering Saudi women) on the subordinate study variable (Education for Sustainable Development), a simple linear regression test was used, and the results of Table 5 show this.

Table 5 Simple linear regression analysis test results to check impact size among study variables

regression coefficients Coefficients			Contrast table ANOVA			Model Summary			depende nt variable	
signific ance level P-value	T calcul ated	β The coefficie nt of determin ation	signific ance level P-value	degrees of freedom	F calcul ated	Adjusted (R ²) Modified coefficie nt of determin ation	(R ²) (R ²) coefficie nt of determin ation	(R) (R) Correla tion coeffici ent		
0.001**	9.475	0.785	0.001**	1	Regres sion	89.77 0	0.622	0.629	.793	Educati on for sustaina ble develop ment
				5	remain der					
				5	Total					

Table 5 shows the impact of Saudi women's empowerment and leadership on education and sustainable development. The results of the statistical analysis show a statistically significant impact at a morale level of 0.001. The R coefficient was 0.793. This confirms a strong positive correlation between Saudi women's empowerment and leadership in education and sustainable development. The R² determination factor was 0.692, i.e., Saudi women's empowerment explained 63% of education and sustainable development. The remaining 37% is attributable to other variables not included in the regression model. In the same vein, the results of the analysis showed that the adjusted determination factor Adjusted R² was 0.622, reflecting the net level of importance of Saudi women's empowerment and leadership in education and sustainable development after eliminating normative error values. In addition, the β determination factor was 0.785, reflecting the magnitude of the impact of Saudi women's empowerment and leadership on education and sustainable development; A one-unit increase in Saudi women's empowerment leads to 78.5% sustainable development.

Based on the findings of the study, we conclude that women's leadership and empowerment in Saudi Arabia in continuing education has a very positive impact on sustainable development in 2030.

4 DISCUSSION

The focus of this study is the relationship between the effectiveness of leadership and empowerment of Saudi women and confirmation and future direction has been

established and discussed. Existing literature reveals that the effectiveness of leadership influences significantly through leadership style and its follow-up with education for sustainable development in Saudi Arabia's vision. This is attributed to the potential for development and the role of leadership and empowerment of women by continuing with education for sustainable development. However, in Saudi Arabia, the style of leadership varies from time to time, necessitating the writing of research and studies to highlight these roles for Saudi women.

Planning or guidance acts differently because they are trying to develop long-term relationships to secure their Posts. Because of cultural differences, women in Saudi Arabia have a low future Orientation because they need to focus on their other responsibilities. Different female Cultures have different priorities, therefore, the results of other studies from developed countries are Non-generalizable in Arab countries such as Saudi Arabia.

Thus, women leaders' assertion strongly affects the effectiveness of leadership and empowerment in different ways. Moreover, a certain level of packages is required in some occupations and In some cases, it is a symbol of effectiveness.

Finally, new efforts such as the 'Saudi Vision 2030' and 'Saudi female leaders' launched by the Chairman of the Council of Economic and Development Affairs in April 2016 include 'The National Transformation Plan 2020.' (Saudi Vision 2017). The purpose of the National Transformation Plan is to increase

2020, the proportion of women in leadership roles. The plan contains several measures to promote this aim, such as training programs for female leaders, reforms,

and laws that can serve to enhance the lives of women. Future studies should include an assessment of the impact of Saudi Arabia's new national reform plan on women. It is necessary to research to see if the Saudi goal for women's empowerment is being realized and how it might be expanded.

Research It is also necessary to comprehend the nature of programs to help women in the Saudi environment, as well as how women experience and benefit from various types of interventions, including mentorship, networking, and training. Longitudinal studies would be conducted to track the influence on women's careers over time. Research in the region must also take new directions that incorporate constructivist and constructionist approaches to understanding women's subjective experiences, as well as new novel studies into identity work and/or identity regulation, which will be especially relevant during these times of change.

5 Conclusions

Women are the focus of development and its tool, and it is its maker and its goal. Therefore, human development has become linked to everything related to humans, as human capital has received attention from many governments and international and local organizations; Realizing its importance in bringing about the development needed by the peoples of the world, development is not only increasing income and wealth but also aims to build human capabilities.

Recently, women's issues and conditions have received increasing attention from all countries as part of the development process, and women's participation in development processes has become a fundamental and essential issue. The result of this was the growing interest in the importance of the role that women can play in

cultural, social, economic, and educational development. The woman is responsible for her family educationally, economically, socially, healthily, and educationally.

The responsibilities of the breadwinner woman multiplied under her new position and tasks, and she had to face her problems and the suffering of her children and meet all their needs and life requirements. The concept of empowerment has now become one of the concepts commonly used in various fields of human sciences. On the social level, the term empowerment is used to talk about marginalized or disadvantaged segments to give them their rights and participate in development. It has also been widely used in the United Nations literature in the field of women by calling for equal rights. Opportunity and decision.

A recent study by Huang et al. (2021) concludes that the Taiwanese government promotes ESD initiatives and program as a way to achieve other political gains other than the actual implementation of ESD. The case may be the same here. It seems that what the Saudi government doing is publicizing words more than taking real actions

6 Future Research

Although this study adds to the literature on women in Saudi Arabia, more research on the challenges that impede women's growth is needed.

A future study might investigate women's good job and employment experiences by asking them to report circumstances and experiences in which their abilities and expertise are recognized and determining what can be done to optimize their experience and prospects. Research is also needed to shed light on female entrepreneurs who have

established their businesses in Saudi Arabia, exploring the causes and impediments to this, and determining whether or not this is a feasible path ahead for other Saudi women.

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