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Factors Affecting Gender Equality among Societies in Karachi, Pakistan: A Mediation and Moderation Analyses

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ABSTRACT

This study investigates the elements that influence gender equality in Karachi Societies. Karachi is one of Pakistan's largest cities, a developing country in South East Asia. When it comes to gender, the country, like many other developing countries, has a substantial inequality in resources and rights. Various socio-cultural practices and racial factors, including diverse spiritual traditions, a complicated legal system, and complex economic and political difficulties, influence women in developing countries. This study used the non-probabilistic convenience sampling strategy to address the target audience's incomplete population during the COVID-19 lockout. Structural equation modelling (SEM) was carried out in this study with the help of smart PLS software to establish a causal link between the predictor, mediating, moderating, and criterion variables. Keeping a watch on the data, it becomes clear that the independent variables separately have a weak moderating impact towards the variable at the mediator factor, the dependent variable. The mediating variables have a relatively stronger contribution to gender equality. Each use contributes little to gender equality, while distinction contributes moderately. The average contribution value of all independent variables is greater than 0.20, with some values reaching up to 0.30, indicating a moderate to weak contribution to gender equality. Many studies have investigated the concerns and causes of women's challenges; however, a lack of causal (explanatory) research has been conducted. Thus, this research provides fruitful knowledge to the existing literature on the mediation and moderation analyses towards gender equality among societies in Pakistan.

Keywords: Gender Equality, Mediation Analyses, Moderation Analyses, Pakistan, Women

1. INTRODUCTION

Although the entire and long-term effects of COVID-19 on equality of the sexes are unknown, the pandemic is predicted to impact women men and men disproportionately. In regards to gender distribution, occupation could have an effect on the number at which men and women lost their lives during the outbreak (Carli, 2020). Despite the fact that male-dominated industries, such as manufacturing, suffer greater jobs lost all through recessions than woman industries, such as healthcare and education, previous downturns in the EU and the US have resulted in a substantial decrease in traditional male workforce comparative to women (Coskun & Dalgic, 2020). Despite the notion that women remain equally skilled as men in maintaining job adaptability and working from home, women claim videoconferencing to help them navigate work and home life and to catch up for work lost, whilst men claim employees to work from home because they enjoy it (BLS, 2019).

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Flexible work arrangements may penalise women by encouraging them to conform to established gender stereotypes while denying them access to great professions. Some family-friendly policies, including such paid parental leave and the opportunity to work part-time, have been demonstrated to improve women's labour-force participation. Although they help males something beyond women, they also stymie women's progress (Blau & Kahn, 2013) and lower their salaries (Flabbi & Moro, 2012) since women assist by them at a quicker pace as male, leading in female having lesser job experience than men. Because education may assist individuals achieve gender equality, equality benefits everyone on both an individual and educational level. Conversely, the school may become a setting that supports the formation of gender discrimination and preconceptions that emphasise males as superior and much more competent than women (Incikabi & Ulusoy, 2019).

Furthermore, education in gender equality has stressed knowledge and professional skills above social and coeducational traits, which is unhelpful (Lappalainen & Lahelma, 2016). According to Wilson (2004), gender equality in education should be understood not just as a right to an education (incorporation and fair and equal), but also as perks inside the school system (environment, processes, and academic performance with gender sensitivity), as well as perks through schooling (significant educational outcomes that link education equality with broader processes of gender justice). Because of this, schools and universities must integrate the concept of justice into their curriculum, increasing women's participation while also encouraging projects that promote and distribute the idea of fairness (Rebollo Catalán et al., 2011).

Gender equality is critical for growth. Pakistan has ratified a number of critical international instruments promoting gender equality and women's human rights, such as the Universal Declaration of Human Rights, the Beijing Platform for Action, the Sustainable Development Goals, and the Convention on the Elimination of All Forms of Discrimination against Women. Protection Against Workplace Harassment Act, Criminal Law (Amendment) (Offences Committed in the Name or Pretext of Rape) Act, Criminal Law (Amendment) (Offences Committed in the Name or Pretext of Honour) Act, and a National Plan of Action on Human Rights. Despite this, for gender equality, Pakistan is now ranked second in the world by the GGG (Global Gender Gap Index). Karachi is one of the largest cities of Pakistan, a developing country in South East Asia. As with some other developing nations, the country has experienced a large disparity of resources and rights when it comes to gender.

Many researches have been done to explore the issues and factors are concerned with women problems, but as per the literature very limited number of causal (explanatory) research has been done on the topic. Additionally, no research has been found to study the mediating role of gender in this situation. The aim of this research is to build on earlier research that explored the factors that affect gender equality among societies in Karachi. This was done by creating SEM to test the moderating relationship with the other factors that affect gender equality among societies in Karachi. Gender inequalities favouring males are consistently larger in poor nations than in wealthy nations in schooling, health, individual freedom, and other areas. The research begins by establishing some fundamental facts regarding how gender disparity correlates with economic development level. It then discusses and evaluate recent findings on many mechanisms by which the factors that affect gender equality among societies in Karachi.

1.1Women in Developing Nations

Women in developing countries are impacted by a variety of socio-cultural practices and racial factors, including a diverse range of spiritual traditions, a complicated legal system, and complicated economic and political conundrums. Females have a reduced labour participation in most developing nations, as well as a lesser level of influence in education, nutrition, health, and political participation (Rustagi, 2004). Women in developing countries outperform women in developed ones in a variety of categories ranging from college enrolment to life control. In

compared to developed nations, women in developing countries contribute less to power systems (Mahbubul, 2000). Women in Pakistan have more disadvantages than males in several areas, including schooling (Behrman & Schnieder, 1993). The dominant majority in a traditional society always has a multitude of grounds for their discriminatory segregation. Per the 9th version of the Gender Gap Report (2014), Pakistan's rating has slipped to 141 out of 142 countries analysed, putting it worst in the region. It also has said there are 86 men and 25 women in the workforce, for a woman to male proportion of 0.30. Men's literacy levels were 67%, while female literacy rates were 42%, giving a male to female a ratio of 0.63. At the elementary level, the enrollment proportion was 67% girls to 77% boys, with just 3% of females obtaining roles of senior government officials, legislators, and executives, contrasted to 97% for men. It states that in comparable contexts, there are 22% females and 78% men working among professional and technical employees, with a male to female proportion of 0.28. Pakistan is ranked 85th in regards to political empowerment, with just 21% of females in parliament compared to 79% of males, resulting in women compared of 0.26. There have been just 5% female heads of state in the previous 50 years, opposed to 95% men, with women to male ratio of 0.05 (Gender Gap Report, 2014). Per the Global Gender Report (2021), Pakistan is placed 153rd out of 156th nations, with only 22.6% of women working and earning only 16.3% of men's earnings.

1.2 Economy and Gender Equality

In recent decades, the economic consequences of gender discrepancy have been a mainstream issue in the economics literature, notably the ramifications of equality of the sexes on economic development, which have been investigated by various well-known scholars (Cuberes & Teignier, 2014). Gender disparities have been thoroughly studied in a wide range of professions (Minasyan et al., 2019). However, as a consequence of the COVID-19 outbreak, that has undoubtedly undone previous modest gains in combating the disease, gender imbalance has recently been a subject of concern (Kristal & Yaish, 2020). Economic complexity, on the other hand, originates from the notion of labour division, specifically the separation of information, and the reality that each worker is limited in how much they can know (Hausmann et al., 2014). Therefore, information in the market can only be extended by disseminating it, and sophisticated goods that need huge amounts of data can only be gained in complicated processes of many persons (Miao et al., 2021). As a country grows, its sectoral mix shifts away from farming and more towards services. The association between a country's proportion of Empowering Women from services with log female Empowerment per person is now 0.52. It is probable that women's outcomes in developing nations are so poor as a consequence of this sector shift during the course of development. Agriculture and industry require greater physical force, or strength, than professions, and as a result, men have a market edge in occupations requiring brawn, such as construction and manufacturing. As a consequence of progress, it is possible that the percentage female worker efficiency may increase (Khan et al., 2022).

According to Galor and Weil (1996), there is a scientific theory for this phenomenon. In their concept, there are jobs that are physically demanding and those that are intellectually demanding, and capital increases the relative rewards for mentally demanding activity. When it comes to intellectually difficult jobs, women have a distinct advantage. Female labour force participation (FLFP) increases as a result of the development process, which entails an expanding capital stock, which reduces the pay disparity between men and women. A feedback loop also exists: higher female salaries reduce reproduction since the potential price of getting kids has risen, which in turn boosts the equity capital even further, resulting in even greater growth. It is possible that lower labour productivity explains not just FLFP or earnings trends, but also gender variations in other outcomes that are impacted by earning potential (Khan et al., 2022). Suppose the real advantage of training is a better salary in the job market. In that case, the fact that males outnumber women in labour participation may encourage parents to increase their investment

in their sons' education. Agriculture, despite the fact that it is more brute strength than other sectors, provides significant returns on investment in academics (Foster & Rosenzweig, 1996). If males specialise in brute strength jobs and females concentrate in brain-based industries, boys will receive more schooling than girls during the early stages of development, according to the research. As the number of brain-based businesses grows, girls should catch up. As a matter of fact, if the literacy rates are greater in cognition industries than in brute strength occupations, female schooling might exceed male schooling in the near future (Pitt et al., 2012).

Increased educational gains can have ripple impacts on equality of the sexes. Portraying fathers as desiring greater legal protections for their daughters while seeking less protections for their spouses in the legal system. Having a daughter who has more advantages than a man's son in law has the important benefit of ensuring that his grandchildren have a college future; per the model, women are more concerned about the well-being of their offspring than males. Therefore, as the benefits to education increase, males are more inclined to support the legal rights of women in their respective fields. Fernández (2014) proposes a different mechanism through which economic growth gives rise to positive male role models for women issues; in her framework, mothers and fathers care equally about their children, as well as the motivators are rising earnings and low birth rates rather than rising rates of return on education; in her framework, mothers and fathers care equally about their children, as well as the motivators are rising earnings and low birth rates rather than rising rates of return on education. Agriculture provides some of the most compelling data on the effects of gender differences in labour productivity.

Qian (2008) explores the late 1970s Chinese economic trends that made cash crop production more viable. She says that because tea leaves are fragile and grow on little bushes, females have a competitive edge in picking them, but men have an advantage in harvesting fruit from trees owing to their size and strength. Thus, she contrasts the effect of macroeconomic changes on tea-growing areas, wherein women labour production is expected to rise more than any other, to fruits orchards areas, wherein men worker productivity is expected to climb the most. The changes led to fewer "missing girls" in tea-growing regions, which is consistent to families tend to have fewer sex-selective termination of the women (female) partaking in much less female infanticide. Per the process she provides, women's share of household income rose, they acquired negotiation power in their homes, they had a lesser son preferring than men, and their gender expression prevailed in family decision making. Carranza (2014) uses different soil diversity and its appropriateness for deep plowing to study the comparative need for women labour in Indian agriculture. Deep tillage, which necessitates more use of workers are suitable to coarser soil with only a low clay concentration. She found lower FLFP and a much more men skewed sex ratio in areas of India with soil suited for extensive plowing, which is compatible with Qian (2008).

2. LITERATURE REVIEW

2.1 Gender Equality

In the developed world, gender parity is advocated as a basic human right and as a necessary basis for international peace, prosperity, and long-term sustainability (UN, 2020). The severity of gender disparity has been recorded in a number of different nations (Odaga, 2020; Ramos et al., 2020). Economic activity, notably efficiency and productivity, is significantly influenced by gender equality or a gender-balanced division of labour (Bertay et al., 2020; Kennedy et al., 2017). Several previous studies have discovered that higher levels of female educational attainment have a positive influence on the economy (Schultz, 2002). Nowadays, there are lots of women working in a men monopoly industry where the number of women leaders worldwide also increase from year to year (Hamdan & Saraih, 2021). However, (Seguino, 2000) stated that gender imbalance in term of salaries might serve as a stimulus for exporting and, consequently,

economic development. No consensus has been achieved on the economic repercussions of gender inequality/equality despite a large number of recent empirical research (Bertay et al., 2020), and this is particularly true when it comes to the influence on industrial prosperity (Minasyan et al., 2019). Women's and men's rights are defined as follows: "a legal, cultural, and social scenario in which sex and/or sexual identity verify different rights as humans for men and females, which is reflected in their unequal access to or satisfaction of perks, as well as the insinuation of generalising cultural and social roles" (EIGE, 2020). Women's rights in healthcare, schooling, work, and civil equality, in particular, strengthens the comparative negotiating leverage of women in their family, particularly in low-income households (Klasen & Wink, 2003). This increased bargaining power may subsequently influence family decisions in a variety of ways, including education for kids, savings, spending, and health-care investments, among other things (Stotsky, 2006). This has the effect of increasing the human resources of the following generation (Nguyen, 2021).

2.2 Women Empowerment

Female equality is a process of realising their inner strength, opportunities for growth, and responsibilities in shaping their own future (Saraswathy et al., 2008). Aside from societal and economic factors, all definitions of female empowerment contain a minimum one mental component. This relates to a vast range of power views, from inner power (natural characteristics such as self-confidence, drive, and self-actualisation) to societal authority (Puhazhendi & Badatya, 2002). The word "empowerment," as per Stine and Karina (2003), relates to a growth stage in which disenfranchised people and families gain the ability to control their lives to make deliberate life choices. Similarly, the researchers stressed that the economic dimensions of empowerment are largely concerned with women's capacity to make a living. Mahendra (2004) studied the impact of economic participation, healthcare, and schooling on female empowerment. According to the survey, the most visible components of women's empowerment include family organisation, marriage advantage, financial independence, mobility flexibility, and lifetime awareness of job engagement in the contemporary sector. In the same framework, Malhotra et al. (2002) emphasised methodological advancements in defining and calculating women's empowerment. They investigated the numerous examples in which female's empowerment was conceptualized. They also evaluated the key components of economy, sociological, ethnography, and demography-based logical, analytic, and empirical studies to empowerment. Therefore, women's empowerment is intended to be used as a strategy in the poverty eradication.

2.3 Decision Making Authority

One aspect of gender discrimination that has garnered an amount of publicity by academicians and practitioners is decision-making authority inside the home. A woman's participation in family matters is such element of women well-being and an aim in and of itself, but the growing importance in female empowerment stems mostly from the notion that it is a method of improving children's results (Duflo, 2012). The theoretical model that informs this theory is that of a nonunitary family, or a family as a group of people with distinct preferences and varying abilities to influence the family's actions (Browning et al., 1994). Self-reports from female participants about making massive expenditures are one indicator of decision-making power shown in research. In developing nations, women have less control over spending decisions. A similar pattern may be observed in all other areas of decision making, including whether or not to visit relatives and friends. The evident wealth gradient between nations exists inside countries as well. Each country's household wealth index is created by the Demographic Health survey. Women with salaries above the national median have more decision-making power and are less accepting with gender-based abuse than female with earnings just under the national median.

2.4 Life Satisfaction

Previous study on the association between life satisfaction and gender has produced inconsistent findings. While some research indicate that women are more content with their lives than males (Stone et al., 2010), others indicate that men have higher level of satisfaction with their lives (Goldbeck et al., 2007). Nonetheless, some research indicates that gender disparities in life satisfaction are minimal (Glaesmer et al., 2011). Graham and Chattopadhyay (2013), for example, demonstrated data that gender variations in life satisfaction are dependent on age, income, education, marital status, and country level of development. Graham and Chattopadhyay discovered that women reported significantly higher levels of life happiness than males on average, and that the gender divide on life satisfaction (in favour of women) was higher in wealthy nations and among more educated, older, and married individuals. Even in countries that are highly developed, significant gender discrepancy persists in labour market results. Women have fewer access to authority, decision-making positions, career prospects, and leisure time than men (Eckermann, 2015). Considering this, female is more content with their life on a subjective level than males. Eckermann (2015) argues a critical component in women's higher life satisfaction scores is resilience.

2.5 Gender Discrimination

Gender discrimination is prevalent in several Asian societies, and as a result, women and girls are frequently discriminated against and subjected to sexual and domestic abuse. This affects not just women and girls individually, but also the worldwide community, causing anguish and depression. When girls and women are forced to maintain the status of second-class citizens, they suffer at every stage of their lives. Gender disparity has the potential to have a huge impact on a woman's life throughout her life, with scenarios ranging from prenatal sexual intercourse to adult sexual assault. While both men and women experience instances of gender inequality, widespread gender inequality is a serious epidemic. It is the result of societal institutions that permit gender inequities and female subservience through institutionalised attitudes. Both men's and women's cultural perceptions contribute to the inequitable life circumstances in which men and women find themselves. Gender disparities are becoming less visible in various cultures and regions. Women's positions in Pakistan are largely founded in culture, with a major societal influence, and are oriented on development and reproduction principles, with a dual role. In Pakistan, a large majority of females undertake housework for family members and are not involved in family choices. For this study, we began with the assumption that gender discrimination can present itself in a variety of ways, and that this inequity is linked to violence against women. Researchers set out to explore existing gender stereotypes and how these norms maintain and sustain male and female's differing living situations in order to better understand the positions that gender traditionally performs in men's and women's lives today.

Despite major disparities in economic, social, and political situations, women’s rights and media in both emerging and rich countries have seen their counter-public spheres decline (Cooper, 2018). Women's unequal access to and usage of ICTs is also a source of worry as the digital gender divide widens, posing a challenge to the creation of an equal information society (Webb, 2016). Gender continues to play an important role in shaping access for women to ICTs (Grizzle, 2014). Evidences reveal that women use the internet at a lower rate than men around the world, with the disparity growing in emerging countries. According to the International Telecommunication Union, women use the internet at a rate of 48% globally, while males use it at a rate of 58% (Kassa & Sarikakis, 2021).

2.6 Freedom of Choice and Distinction as Mediators

Women empowering curve in female's well-being can also be seen in responses to a World Values Survey (WVS) inquiry about one's degree of empowerment in one's existence; participants were

asked to evaluate "how much choice and freedom and influence you believe you have over the way your life ends out." Women in poor nations report having less control over their lives than women in developed ones. Throughout India, the Arab World, and Northern Africa, women have relatively restricted freedom of choice. These are the places with the least FLFP as well. There is a 0.59 correlation between such a nation's male-female difference in workforce participation as well as its male-female difference in freedom of control. Parents' preference for boys encompasses a wish to have male children as well as a preference to spend more on sons than daughters. Though they're not identical, the two features of partiality usually coexist. In theory, couples may well have a preference again for quantity of son, and girls, which varies from their preference again for average standard each of, and parents, for example, may prefer boys over girls yet value the same attributes in both. Their usefulness role would've been diminished to nothing. With this utility function, they may still have a strong desire to have a son. There's at least two big variation between the number and quality components of son choice. Firstly, the notion that China and India are significant outliers in terms of a total fertility rate but not in terms of investment results including such education suggests that the overall dimensions are separate. More widely, there's really larger geographic variation in the sex ratio, with African countries needing less skewed fertility rates at conception (based on female empowerment for every head of population) and Asia needing more slanted ratios, but while sex role individuals with different equity demonstrate less about this regional segmentation.

2.7 Gender as Moderator

The social and cultural framework that divides men and women, girls and boys, and thus pertains to the roles and obligations of men and women. Like a consequence, gender roles and other traits change with time and vary depending on the cultural context. Gender stereotypes include preconceived assumptions about women's and men's characteristics, aptitudes, and likely behaviors (femininity and masculinity). This concept is critical for investigating how popularly accepted behaviors legitimise gender inequities. Sex imbalance during birth**:** Birth sex imbalance is a particularly concerning form of gender bias. The shortage of females, as per Anderson and Ray (2010), expresses itself at birth as well as during early infancy, but it endures through one's life. This gender discrepancy at childbirth is noteworthy since it has worsened dramatically in several nations during the previous 50 years. Birth sex ratios in India and China, 1962–2012**:** First, the sex ratio in more developed nations is worse, echoing the reality that it has deteriorated through times in India and China. Secondly, China and India are anomalies, having sex ratios that are disproportionately male (Anderson & Ray, 2010).

2.8 The Formulation of Hypotheses

Given the existing literature, the researcher formulated ten hypotheses as below:

H_1: Freedom of choice considerably mediates the association among women empowerment and gender equality.
H_2: Freedom of choice considerably mediates the association among decision-making authority and gender equality.
H_3: Freedom of choice considerably mediates the association among life satisfaction and gender equality.
H_4: Freedom of choice considerably mediates the association among gender discrimination and gender equality.
H_5: Distinction considerably mediates the association among women empowerment and gender equality.
H_6: Distinction considerably mediates the association among decision-making authority and gender equality.

H_7: Distinction considerably mediates the association among life satisfaction and gender equality.
H_8: Distinction considerably mediates the association among gender discrimination and gender equality.
H_9: Gender considerably moderates the association among freedom of choice and gender equality.
H_{10}: Gender considerably moderates the association among distinction and gender equality.

3. METHODOLOGY

A simple model of what the SEM look like is mentioned above. Data was collected from 96 respondents. SMART PLS was used to conduct the SEM analysis as it is extremely robust, and can even handle smaller samples. Data was collected through pre-existing data collection instruments, and was tabulated in excel. The survey was done as a cross-sectional data collection approach allowing us accurate snapshot of the situation. The quantitative approach employs a semi-structured questionnaire based on a 5-point Likert Scale (as strongly agree to strongly disagree), which aids in quantifying the data obtained for unbiased empirical research. This quantitative methodology was used so that a causal link between the several variables found during the early part of the research could be examined. When the goal of the study was to establish a causal link between the independent factors, mediating variables, moderating variables, and the dependent variable, Smart PLS software was utilised to aid with SEM (Hair et al., 2011). The study is a cross approach wherein information is collected at a single moment in time using semi-structured items throughout a questionnaire. The survey was created utilising numerous items from previously published studies for the specified variables, ensuring reliability and validity. Cross-sectional data is most successful in social and behavioural science investigations since it provides a picture of the participants' perspectives (Hair et al., 2009).

The research designed the questionnaire from scratch keeping in mind the unique problem that was being studied. The factors that were identified through the explorative analysis were relatively unique and did not have relevant or accurate published items available to be used or borrowed (Henseler at al., 2015). Keeping this consideration in mind, unique items had to be design from scratch requiring extensive review and checks to ensure their validity and reliability (Creswell, 2009). The research employs a convenience sampling strategy, which is part of a non-probabilistic sampling methodology that focuses on the researcher's convenience in approaching people to reply to the survey instrument or gather data. Although quantitative and objective research is focused on using simple random sampling through purposeful sampling methods, it is often difficult to know the total population of said intended audience, rendering a probabilistic sampling strategy unfeasible (Creswell, 2009). Because addressing the whole demographic of the intended audience via simple random sample was impractical during the COVID-19 shutdown, the research used a quasi-convenience sampling approach. People from a variety of various groups in Karachi were contacted based on their availability and the ease with which they might be approached. Despite the fact that the non-probabilistic technique wasn't the most reliable kind of sampling method, it was one of the research's shortcomings.

The validity of the qualitative instrument and data was ensuring through the process of triangulation where information from different sources was collided and compared to see if the conclude and diverge at the same conclusion. The data's and quantitative instrument's dependability were thoroughly examined. The instrument was adapted from many studies that were published in respected Scopus citation indexed publications, making them respectable and dependable. Furthermore, the acquired data was subjected to a series of preliminary tests in which its validity and reliability were evaluated using the clever PLS Program (Hair et al., 2011). The required specific HTMT were examined and found satisfactory in insuring that the required validity and the reliability were satisfied before the analysis and interpretation, keeping in mind the newest needs of the research methods (Henseler et al., 2015). The acquired data was

examined utilising the SEM using Smart-PLS in accordance with the hypotheses developed. While testing the hypotheses, the specifics are detailed experimentally in the following section. Construct reliability, discriminant reliability, and convergent reliability were tested to assess the suitability of this measurement paradigm.

4. RESULTS AND DISCUSSIONS

Table 1 Measurement Model Result

	Cronbach's – Alpha	Rho-A	Composite-Reliability	(AVE)
Gend Dis	0.756	0.722	0.799	0.667
Gender	0.746	0.726	0.801	0.636
Dist	0.731	0.834	0.773	0.633
Gend Equ	0.731	0.812	0.756	0.698
Women Emp	0.813	0.822	0.867	0.763
DMA	0.851	0.846	0.697	0.742
Life Sat	0.766	0.889	0.668	0.602
Freedom of Choice	0.803	0.823	0.775	0.563

Abbreviations: Gend Dis = Gender Discrimination, Gender = Gender, Dist = Distinction, Gend Equ = Gender Equality, Women Emp = Women Empowerment, DMA = Decision-Making Authority, Freedom of Choice = Freedom of Choice, Life Sat = Life Satisfaction

Cronbach's alpha values for the variables are shown in Table 1, and all of them are larger than 0.7, matching the conventional criterion of Hair et al. (2011). To investigate the composite reliability (construct reliability) of all this model, 0.7 is indeed the acceptable criteria of Straub (1989); hence, all composite reliability values are more than or equal to 0.7 and meet the reliability standards. Average Variance Extracted (AVE) assessed convergent validity, according to Fornell and Larcker (1981), AVE values must be greater than or equal to 0.50. As AVE values above 0.50, convergent validity is verified (Hair et al., 2009).

Table 2 Fornell-Larcker Criterion

	Gend Dis	Gender	Dist	Gend Equ	Women Emp	DMA	Life Sat	Freedom of Choice
Gend Dis	**0.819**							
Gender	0.523	**0.736**						
Dist	0.618	0.657	**0.684**					
Gend Equ	0.642	0.565	0.579	**0.677**				
Women Emp	0.602	0.525	0.667	0.786	**0.814**			
DMA	0.556	0.507	0.601	0.638	0.722	**0.793**		
Life Sat	0.581	0.741	0.664	0.661	0.586	0.541	**0.785**	
Freedom of Choice	0.674	0.662	0.718	0.537	0.556	0.732	0.679	**0.751**

As demonstrated in Table 2, the diagonal values represented by the square root of the AVE. The values of AVE must be greater than the values of collinearity (Fornell & Larcker, 1981). As a result, the discriminant validity of the test is validated because all of the correlation coefficients are bigger than the levels of average variance obtained. The Fornell–Larcker criteria was satisfied, as evidenced by the data in Table 2.

Heterotrait–Monotrait Ratio (HTMT) is used to assess the discriminant validity; in order to meet the standard requirements of Henseler et al. (2015). The HTMT values must be less than 0.85 in order to be considered discriminant valid (Sarstedt, 2017). As presented in Table 3, the result of HTMT test reveals that all of the results are far below 0.85 and that they all meet the acceptable standards. The data for variation inflation factors (VIF) is used to verify the model's CMB (common method biasness), which supports the findings of (Harman, 1976); where all VIF values must be less than 3 (Hair et al., 2011).

Table 3 Heterotrait–Monotrait Ratio (HTMT)

	Gend Dis	**Gender**	**Dist**	**Gend Equ**	**Women Emp**	**DMA**	**Life Sat**	**Freedom of Choice**
Gend Dis								
Gender	0.578							
Dist	0.821	0.828						
Gend Equ	0.811	0.622	0.034					
Women Emp	0.752	0.573	0.556	0.672				
DMA	0.652	0.521	0.729	0.748	0.808			
Life Sat	0.785	0.830	0.596	0.821	0.776	0.667		
Freedom of Choice	0.814	0.745	0.645	0.323	0.521	0.827	0.516	

As a result, the measurement model analysis verifies the construct reliability, convergent validity, and discriminant validity, and the study is both valid and reliable, according to the analysis (Sarstedt, 2017). The structure model consists of two primary components – See Figure 1.

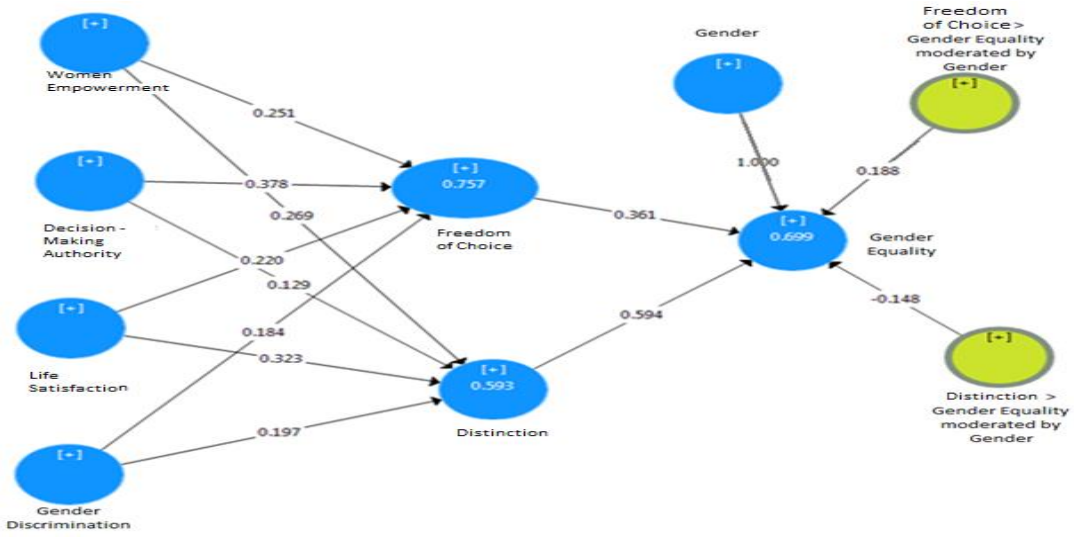

Figure 1. Mediation and Moderation Analyses

The first section investigates the mediating role of freedom of choice and distinction on decision-making authority, women empowerment, gender equality, gender discrimination, and life satisfaction. The second section investigates the moderating role of gender on freedom of choice, gender equality and distinction. The findings of mediation analysis are shown in Table 4, and the results of moderating analysis is shown in Table 5.

Table 4 Mediation Analysis

Hypotheses	Regression Path	Effect Type	SRW	P-Values	Results
H_1	Women Emp → Freedom of Choice → Gend Equ	In-Direct-Effects	0.089**	0.029	Supported
H_2	DMA → Freedom of Choice → Gend Equ	In-Direct-Effects	0.236***	0.000	Supported
H_3	Life Sat → Freedom of Choice → Gend Equ	In-Direct-Effects	0.083	0.101	Not Supported
H_4	Gend Dis → Freedom of Choice → Gend Equ	In-Direct-Effects	0.071**	0.042	Supported
H_5	Women Emp → Dist → Gend Equ	In-Direct-Effects	0.170**	0.042	Supported
H_6	DMA → Dist → Gend Equ	In-Direct-Effects	0.077	0.263	Not Supported
H_7	Life Sat → Dist → Gend Equ	In-Direct-Effects	0.193***	0.004	Supported
H_8	Gend Dis → Dist → Gend Equ	In-Direct-Effects	0.117**	0.044	Supported

****p < .01, **p > .01*

Table 5 Moderation Analysis

Hypotheses	Regression Path	Effect Type	SRW	P-Values	Results
H_9	Freedom of Choice → Gender → Gend Equ	In-Direct-Effects	0.192**	0.015	Supported
H_{10}	Dist → Gender → Gend Equ	In-Direct-Effects	0.155	0.088	Not Supported

****p < .01, **p > .01*

The purpose of this research is to investigate the elements that have an impact on gender equality. The study is based on a total of ten hypotheses, eight of which are mediating hypotheses and two of which are moderating hypotheses. A number of prior research have looked at the mediator variable freedom of choice and distinction independently, with some studies looking at the first as a predictor variables and others looking at the second as a mediator as the study of Muenjohn et al. (2020) and Reuvers et al. (2008) but, both variables (distinction and freedom of choice) has not been studied as a mediator at the same time.

The first hypothesis **H_1** (Women Emp → Freedom of Choice → Gend Equ) is accepted and verifies the positive relationship between women empowerment and gender equality through the mediation of freedom of choice ($\beta = 0.089$, $p > .01$). Women Empowerment has a great impact on ease of use hence the overall gender equality and ease of use is a relative term, and it becomes easier if the women empowerment become worst. The second hypothesis **H_2** (DMA → Freedom of Choice → Gend Equ) is accepted about the relationship of decision-making authority and gender equality by the mediation of freedom of choice ($\beta = 0.236$, $p < .01$). The results indicate that if a student believes freedom of choice and then elements in decision-making authority will boost their gender equality level. Furthermore, hypothesis **H_3** (Life Sat → Freedom of Choice → Gend Equ) is rejected and the results show that there is no indirect relationship between gender equality and life satisfaction through freedom of choice ($\beta = 0.083$, $p > .01$) and as noticed by the researchers, this hypothesis is tested for the first time.

Hypothesis **H_4** (Gend Dis → Freedom of Choice → Gend Equ) is accepted and confirms the positive association among freedom of choice, gender discrimination and gender equality (β = 0.071, p > .01). The results support the study of Zuraik and Kelly (2019) that gender discrimination and ease of use influence gender equality in a positive way means, freedom of choice help to negate gender discrimination where women can stay motivated and increases gender equality. The next hypothesis **H_5** (Women Emp → Dist → Gend Equ) is accepted and the findings indicate that the distinction is a significant mediating variable between women empowerment and gender equality (β = 0.170, p > .01).

Hypothesis **H_6** (DMA → Dist → Gend Equ) is rejected and represent that there is no association between decision-making authority and gender equality through the mediation of distinction (β = 0.077, p >.01) and to the best of researchers' knowledge this hypothesis is examined in the past. The hypothesis **H_7** (Life Sat → Dist → Gend Equ) is accepted and indicating the positive correlation among life satisfaction, distinction and gender equality (β = 0.193, p < .01), which means life satisfaction increases gender equality when there is a mediation of distinction.

The next hypothesis **H_8** (Gend Dis → Dist → Gend Equ) is accepted and demonstrates that gender discrimination positively influences gender equality when there is a mediation effect of distinction (β = 0.117, p > .01). In addition, the **H_9** hypothesis (Freedom of Choice → Gender → Gend Equ) is accepted, and it concerns the moderating function of gender among freedom of choice and gender equality (p >.01). Finally, the last hypothesis **H_{10}** (Dist → Gender → Gend Equ) is rejected, and the results demonstrate that gender does not serve as a substantial moderator variable among gender equality and distinction (p >.01). After careful consideration, it was discovered that gender had no impact over either discrimination or gender equality.

5. CONCLUSIONS

Keeping an eye on the results it becomes very apparent that individually the independent variables have a weak to moderating contribution towards the mediating variable and dependent variable. The average contribution value of all the independent variables is more or less more than 0.20 some of the values reaching up to 0.30 which shows a moderate to weak contribution towards the dependent variables. The studies main focus was to understand and test the hypothesis based on the contribution of the variables through the mediating relationships of ease of use and distinction problems. The mediating variable themselves have a relatively stronger contribution towards the dependent variable of gender equality the beta value of ease of use is 0.36 which shows a weak to moderation contribution while the beta value of Distinction is 0.59 which shows a moderate to higher and contribution towards gender equality. The R squared value at is of use is 0.75 which shows a strong contribution of the independent variables on ease of use while the R squared value of Distinction is 0.59 which shows that the independent variable has a decent moderate contribution towards Distinction. It is worth noting here that the R square basically shows the variability in the dependent variable which is explained by the variability in the independent variable or it is the variability in the independent variable which explains the variability in the dependent variable here is of use and distinction have a very ability which is very well explained by the variability send the independent variables.

5.1 Limitations and Recommendations

The sample size and sampling process are two of the study's significant weaknesses. The sample size was limited to 96, with a confidence level of around 90%, which is suitable for social sciences and acceptable for management and social sciences. We required a number of respondents of 384 to get a higher confidence level, however this was not possible owing to the pandemic limitations. In addition, the sampling process utilised in this study was unsatisfactory since it was centered on the participants availability rather than required method and sample size. If the whole

demographic was known, and the researcher had the ability to reach everyone, then randomised or methodical random sampling would be the best option. Keeping the issue in mind, as well as the condition caused by COVID-19, a solid sampling methodology could not have been adopted. Several of the author's suggestions for such research include employing a larger sample, which might increase the distinction range and overall reliability to 384. Furthermore, a larger sample size would aid in obtaining a fuller image of the nation and the people that reside in its various regions. A larger, more frightening sample would extend the scope of the study and making it more generally applicable to the general population. For comparing or contrasting meanings, the research advises employing descriptive and inferential statistics and statistical analysis. This would assist in understanding the variance here between variables under study, and a greater sense of the more significant impact of gender in just this overall conceptual framework. The study now implies that gender can play a big part like a moderator including at minimum one of the factors, although the extent to which this is true is uncertain. A comparative means study using a basic test like the t-test, or a more in-depth assessment with ANOVA, can help you understand or clarify the amount to which gender plays a factor in this case.

REFERENCES

Anderson, S., & Ray, D. (2010). Missing Women: Age and Disease, *The Review of Economic Studies, 77*(4), 1262-1300.

Behrman, J., & Schneider, R. (1993). An International Perspective on Pakistani Human Capital Investment in the Last Quarter Century, *Pakistan Development Review*, *32*(1), 1-68.

Bertay, A. C., Dordevic, L., & Sever, C. (2020). Gender Inequality And Economic Growth: Evidence From Industry-Level Data: International Monetary Fund. Working Paper No. 2020/119.

Blau, F. D., & Kahn, L. M. (2013). Female Labour Supply: Why Is The United States Falling Behind? *American Economic Review*, *103*(3), 251-256.

BLS. (2019). Job flexibilities and work schedules. Washington, DC. Retrieved from https://www.bls.gov/news.release/flex2.toc.htm

Browning, M., Bourguignon, F., Chiappori, P.A., & Lechene, V. (1994). Income and Outcomes: A Structural Model of Intrahousehold Allocation. *Journal of Political Economy*, *102*(6), 1067-1096. http://www.jstor.org/stable/2138780

Carli, L. L. (2020). Women, Gender Equality and COVID-19. *Gender in Management, 35*(7/8), 647-655. https://doi.org/10.1108/GM-07-2020-0236

Carranza (2014), Carranza Conference: Diversity and Health: Avoiding Cultural Malpractice and Promoting Quality Care. Retrieved on May 15, 2022 from https://www.carranza.on.ca/resources/blog-post/personal-injury-blog/2014/09/26/Diversity-Health-Conference-Avoiding-Cultural-Malpractice-and-Promoting-Quality-Care

Cooper, R. (2018). What is Civil Society, Its Role and Value in 2018? Retrieved from https://assets.publishing.service.gov.uk/media/5c6c2e74e5274a72bc45240e/488_What_is_Civil_Society.pdf

Coskun, S., & Dalgic, H. (2020). The Emergence of Procyclical Fertility: The Role of Gender Differences in Employment Risk. *Collabourative Research Center Transregio*, 224. Discussion Paper No. 142

Creswell, J. (2009). *Research Design: Qualitative, Quantitative, and Mixed-Method Approaches* (3rd ed.). Sage Publications, Inc.

Cuberes, D., & Teignier, M. (2014). Gender Inequality And Economic Growth: A Critical Review. *Journal of International Development*, *26*(2), 260-276.

Duflo, E. (2012). Women Empowerment and Economic Development. *Journal of Economic Literature, 50*(4), 1051–1079, http://dx.doi.org/10.1257/jel.50.4.1051.

Eckermann, E. (2015): A Pioneer in Gendered Understandings of Quality of Life. *Applied Research Quality Life*, *10*, 553–555, https://doi.org/10.1007/s11482-015-9420-0

EIGE. (2020). Gender Inequality. Retrieved from https://eige.europa.eu/publications/gender-equality-index-2020-report

Fernández, R. (2014). Women's rights and development. *Journal Economic Growth, 19*, 37–80.

Flabbi, L., & Moro, A. (2012). The Effect of Job Flexibility on Female Labour Market Outcomes: Estimates from a Search and Bargaining Model. *Journal of Econometrics*, *168*(1), 81-95.

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, *18*, 382-388.

Foster, A. D., & Rosenzweig, M. R. (1996). Technical Change and Human-Capital Returns and Investments: Evidence from the Green Revolution. *The American Economic Review*, *86*(4), 931–953. http://www.jstor.org/stable/2118312

Galor, O., & Weil, D. (1996). The Gender Gap, Fertility, and Growth, Ideas. *American Economics Review*, *86*(3), 374-387

Glaesmer, H., Grande, G., Brähler, E., & Roth, M. (2011). Correction to Glaesmer et al. (2011). *European Journal of Psychological Assessment*. *27*. 299. 10.1027/1015-5759/a000081.

Global Gender Gap Report (2014). World Economic Forum, available at: https://reports.weforum.org/global-gender-gap-report-2014/, retrieved on: 20th May 2022

Global Gender Report (2021), available at: https://www.weforum.org/reports/global-gender-gap-report-2021/, retrieved on: 20th May 2022

Goldbeck, L., Schmitz, T.G., Besier, T., Herschbach, P., & Henrich, G. (2007). Life Satisfaction Decreases during Adolescence. *Quality of Life Research*, *16*(6), 969–979. http://www.jstor.org/stable/27641333

Graham, C., & Chattopadhyay, S. (2013). Gender and well-being around the world. *Int. J. of Happiness and Development, 1*. 10.1504/IJHD.2013.055648.

Grizzle, A. (2014). Enlisting Media and Informational Literacy for Gender Equality and Women's Empowerment. Media and Gender: A Scholarly Agenda for the Global Alliance on Media and Gender, 93-108.

Hair, J. R., Babin, B.W., & Anderson, R. (2009). *Multivariate Data Analysis*: Pearson; 7th edition, ISBN-13: 978-0138132637

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

Hamdan, H., & Saraih, U.N. (2021). Determinants of Women Leadership in the Malaysian Manufacturing Industry. *AIP Conference Proceedings 2339*, 020146; https://doi.org/10.1063/5.0044183

Harman, H.H. (1976). *Modern Factor Analysis. 3rd Edition*: The University of Chicago Press, Chicago.

Hausmann, R., Hidalgo, C. A., Bustos, S., Coscia, M., & Simoes, A. (2014). *The Atlas of Economic Complexity: Mapping Paths to Prosperity*: Mit Press.

Henseler, J., Ringle, C., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling. *Journal of the Academy of Marketing Science, 43*. 115-135. 10.1007/s11747-014-0403-8.

Incikabi, L., & Ulusoy, F. (2019). Gender Bias and Stereotypes in Australian, Singaporean and Turkish Mathematics Textbooks. *Turkish Journal of Life Satcation*, *8*(4), 298-317.

Kassa, B.E., & Sarikakis, K. (2021). Shrinking Communicative Space For Media and Gender Equality Civil Society Organisations. *Feminist Media Studies*, 1-18.

Kennedy, T., Rae, M., Sheridan, A., & Valadkhani, A. (2017). Reducing Gender Wage Inequality Increases Economic Prosperity For All: Insights From Australia. *Economic Analysis and Policy*, *55*, 14-24.

Khan, S., Rasheed, R., Rashid, A., Abbas, Q., & Mahboob, F. (2022). The Effect of Demographic Characteristics on Job Performance: An Empirical Study from Pakistan. *The Journal of Asian Finance, Economics and Business* , *9*(2), 283–294.

Khan, S., Rashid, A., Rasheed, R., & Amirah, N. A. (2022). Designing A Knowledge-Based System (KBS) To Study Consumer Purchase Intention: The Impact of Digital Influencers in Pakistan. *Kybernetes*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/K-06-2021-0497

Klasen, S., & Wink, C. (2003). Missing women: Revisiting the Debate. *Feminist Economics*, *9*(2-3), 263-299.

Kristal, T., & Yaish, M. (2020). Does The Coronavirus Pandemic Level The Gender Inequality Curve?(It Doesn't). *Research in Social Stratification and Mobility, 68,* 100520.

Lappalainen, S., & Lahelma, E. (2016). Subtle Discourses On Equality In The Finnish Curricula Of Upper Secondary Education: Reflections Of The Imagined Society. *Journal of Curriculum Studies*, *48*(5), 650-670.

Mahbubul, H. (2000). *Human Development In South Asia 2000: The Gender Question*, ISBN 10 0195795083, ISBN 13: 9780195795080, publisher: Ergodebooks

Mahendra, S. D. (2004). Female Work Participation Using Occupational Data From Nfhs Data Set. *Econ. Political Wkly. 39*(7), 16–29.

Malhotra, A., & Schuler, S. R. (2002). Measuring Women's Empowerment as a Variable in International Development. The World Bank, Washington DC. https://doi.org/10.1037/e597202012-004

Miao, M., Jalees, T., Zaman, S. I., Khan, S., Hanif, N. U., & Javed, M. K. (2021). The Influence of E-Customer Satisfaction, E-Trust And Perceived Value On Consumer's Repurchase Intention In B2C E-Commerce Segment, *Asia Pacific Journal of Marketing and Logistics*. https://doi.org/10.1108/APJML-03-2021-0221

Minasyan, A., Zenker, J., Klasen, S., & Vollmer, S. (2019). Life Satcational Gender Gaps and Economic Growth: A Systematic Review And Meta-Regression Analysis. *World Development*, *122*, 199-217.

Muenjohn, N., Ishikawa, J., Muenjohn, P., Memon, M. A., & Ting, H. (2020). The Effect of Innovation And Leadership On Performance In China And Vietnam. *Asia Pacific Business Review*, *27*(1), 101-110. https://doi.org/10.1080/13602381.2021.1850606

Nguyen, C. P. (2021). Gender Equality And Economic Complexity. *Economic Systems*, 100921.

Odaga, G. (2020). Gender in Uganda's Tertiary Educational Distribution. *Social Sciences & Humanities Open*, 2(1), 100023.

Pitt, M. M., Rosenzweig, M. R., & Hassan, N. (2012). Human Capital Investment and the Gender Division of Labour in a Brawn-Based Economy. *The American Economic Review*, *102*(7), 3531–3560. https://doi.org/10.1257/aer.102.7.3531

Puhazhendi, V., & Badatya, K. C. (2002). Shg-Bank Linkage Programme for Rural Poor—An Impact Assessment. New Delhi: SHG-Bank Linkage Programme Seminar.

Qian, N. (2008). Missing Women and the Price of Tea in China: The Effect of Sex-Specific Earnings on Sex Imbalance. *The Quarterly Journal of Economics*, *123*(3), 1251–1285. http://www.jstor.org/stable/25098928

Ramos, M. E., Gibaja-Romero, D. E., & Ochoa, S. A. (2020). Gender Inequality and Gender-based Poverty in Mexico. *Heliyon, 6*(1), e03322.

Rebollo Catalán, M. Á., García Pérez, R., Piedra de la Cuadra, J., & Vega Caro, L. (2011). Diagnóstico de la cultura de género en educación: Actitudes del Profesorado Hacia La Igualdad. *Revista de Life Satcación*, *355*, 521-526.

Reuvers, M., Van Engen, M. L., Vinkenburg, C. J., Wilson-Evered, E. J. C., & Management, I. (2008). Transformational Leadership and Innovative Work Behaviour: Exploring the Relevance of Gender Differences. *17*(3), 227-244. https://doi.org/10.1111/j.1467-8691.2008.00487.x

Rustagi, P. (2004). Significance of Gender-Related Development Indicators: An Analysis of Indian States. *Indian Journal of Gender Studies, 11*, 291-343. 10.1177/097152150401100303.

Saraswathy, Anna, K. P., & Panicker, K. S. M. (2008). Microcredit and Women Empowerment: A Study In India. *International Journal of Global Business*, *1*(1), 184-213

Sarstedt, M., Hair, J. F., Hult, G. T. M., & Ringle, C. M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM):* Sage Publictaions, Thousand Oaks, CA

Schultz, T. P. (2002). Why Governments Should Invest More To Educate Girls. *World Development*, *30*(2), 207-225.

Seguino, S. (2000). Gender Inequality And Economic Growth: A Cross-Country Analysis. *World Development*, *28*(7), 1211-1230.

Stone, A. A., Schwartz, J. E., Broderick, J. E., & Deaton, A. (2010). A Snapshot of The Age Distribution Of Psychological Well-Being In The United States. *Proc Natl Acad Sci, 107*(22), 9985–9990. https://doi.org/10.1073/pnas.1003744107

Stine, A., & Karina, H. (2003). Education as a Means to Women's Empowerment. Opgave, Approaches to Development (U-landslære), Aarhus University

Stotsky, J. G. (2006). Gender and Its Relevance to Macroeconomic Policy: A Survey. IMF Working Paper, WP/06/233.

Straub, D. W. (1989). Validating Instruments in MIS Research. *MIS Quarterly,* 13(2), 147-169.

UN. (2020). Goal 5: Achieve Gender Equality and Empower All Women and Girls. Sustainable Development Goals, UN, New York, US.

Webb, A. (2016). Information and Communication Technology and Contesting Gender Hierarchies: Research Learnings from Africa and the Middle East. *Journal of Information Policy*, *6*(1), 460-474.

Wilson, D. (2004). Human Rights: Promoting Gender Equality In and Through Education. *Prospects*, *34*(1), 11-27.

Zuraik, A., & Kelly, L. (2019). The Role of CEO Transformational Leadership and Innovation Climate in Exploration and Exploitation. *European Journal of Innovation Management*, *22*(1), 84-104.