

## Determinants of Women's Participation in Managerial Positions: Evidence from University of Gondar, Ethiopia

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### Abstract

*Despite record-breaking numbers of women appointed to ministry level in 2018/19 and increasing public attention around gender equality in various institutions, women remain to face multi-faceted challenges and are underrepresented in senior leadership roles across industries in Ethiopia. Therefore, this study aimed to describe the level of women's participation in managerial positions and its determinants at the University of Gondar. The study was conducted using the cross-sectional survey design method encompassing both qualitative and quantitative research approaches. Questionnaires were handed out to 266 employees selected using a proportional stratified sampling technique from a population of 4837 female employees. This was analyzed through descriptive (mainly mean analysis) and multiple regression statistical techniques. The findings of the study showed that women's participation in leadership is very low with a mean average of 2.20. Furthermore, the study revealed that personal, organizational, parental, and socio-cultural factors explained 93.4% of the variations in women's participation in managerial positions and significantly contributed to their underrepresentation. The findings also indicated that organizational factors were the highest contributor to the low participation of females in leadership. The current empirical study contributes to investigations in academic institutions and provides new insight into determinants of women's participation in leadership in the Ethiopian context.*

**Keywords:** 1.leadership, 2.managerial positions, 3.participation, 4.women

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### 1. Introduction

In many countries of the world, women have either less participated or low represented in higher-level managerial and decision-making positions. Indeed, in many organizations, the proportion of men appointed as managers and decision-makers compared to women in similar positions is highly skewed, with men overwhelmingly dominating the managerial positions. According to UNDP (2015), women's low access to information and media, fewer employment opportunities, and organizational barriers coupled with cultural factors reduce their managerial positions and decision-making power. The argument for women should participate equally with men in decision making and managerial positions are based on the recognition that their perspectives and ideas should be effectively incorporated at all levels of decision-making, from the private to the public spheres of their lives, and from the local to the global (Mbugua, 2007).

Several studies showed that all around the world, women's participation in leadership is remains low. Even if equal participation of women in managerial positions and decision-making processes is accepted globally, in reality, it remains low even in developed countries (Benedicta 2007). Different reasons prevent women from coming to managerial positions, including, socio-cultural factors, the lack of mentors and role models, and the lack of opportunity (Muhaiminul & Nasira 2016).

In many countries of Africa, traditions and cultural attitudes regarding women's participation in managerial positions have been associated with masculinity, and the belief that men make better leaders than women in society is still prevalent and many women are part of this system finding it difficult to dislocate from this culture and tradition. This leads to women being disproportionately represented in managerial and decision-making positions (Hirut 2014).

Similar to many African countries, the majority of women in Ethiopia hold few managerial positions in the organizations. In Ethiopia, women constitute 71.3% of the clerical and fiscal types of jobs. On the other hand, the administrative and professional jobs category is only 25% and 18% respectively, which indicates middle and top managerial positions are overwhelmingly dominated by men (Federal Civil Service Commission, 2015). This widest gender gap is most evident in managerial positions and public staff that their proportion has not been proportional to the size of the population.

Several studies were conducted to spot factors influencing women's participation in leadership and management but their findings are inconsistent. Bullough (2008), concluded that unfavorable organizational and social factors have a negative influence on levels of women's participation in positions of leadership and management. Furthermore, Shin & Bang (2013), indicated that socio-cultural and organizational highly explained women's low participation in managerial positions. Beyond this, Elsi (2013), stated that women's participation in a managerial position is highly explained by organizational factors but this contradicts the findings of Shin & Bang (2013), who conclude that socio-cultural factors have the highest contributor to women's participation in managerial positions.

The studies conducted in Ethiopia also resulted in mixed results. Birikitie (2014), identified educational gap, socio-cultural attitude, organizational culture, and company recruitment and promotion practice as the main factors that hinder women's participation in management positions in Ethio-Telecom. On the other hand, the study of Gojjam and Manjit (2015), showed that stereotyping, patriarchy, lack of supportive system at work, low academic qualifications, and role model women the as a major factor that determines women's participation in leadership and management positions in the selected public higher institution in the Amhara Region. Furthermore, Nigistie (2019), concluded that lack of academic qualifications, overburden of domestic responsibility, and lack of confidence and experience as the major obstacles to women's participation in leadership in Ethiopia. This indicates that previous studies conducted in the area of factors affecting women's participation in managerial positions are inconsistent, inconclusive, and need further investigation. Hence, to fill this gap, this study tried to examine the determinants of women's participation in managerial positions at the University of Gondar, Ethiopia.

Having considered the above discussions, the research objectives are formulated as follows;

1. To describe the level of women's participation in managerial positions
2. To examine the effect of private, organizational, socio-cultural, and parental factors on women's participation in managerial positions

## **2. Literature Review and Hypotheses of the study**

### **2.1 Basic concepts of Leadership**

Different scholars define leadership differently. According to Yalem (2011), leadership is a process by which one person influences the thoughts, attitudes, and behaviors of others. Yukal (2006) also defines leadership as the process of influencing others to understand and agree about what needs to be done and how to do it, as well as the process of facilitating individual and collective efforts to accomplish shared objectives. Moreover, it is the ability to direct people toward the achievement of goals and it is associated with the setting of goals and visions for the future and going through the process to achieve the desired goals.

Although there is a variety of leadership definitions most of them focused on two components which are: the process of influencing a group of individuals to obtain a common goal and develop a vision.

### **2.2 Women and Leadership Style**

Leadership styles refer to the underlying need structure of the leader that motivates behavior in various interpersonal situations (Nava, 2014). It refers to a pattern that a leader adopts in influencing the behavior of group members. Several classifications have been developed in connection with this concept. Based on how leaders use their authority, leadership styles are generally classified into three: authoritarian (directive), democratic (participative), and laissez-faire (non-directive) leadership style. Different factors have an impact on developing a choice of leadership styles. Researchers like Mosley, Reller & Hengst (1993) argue that generally three factors (leaders' philosophy; followers' maturity level; and the situation faced by the leader) affect the choice of leadership styles.

Various experiences in the world have shown that women do have different leadership styles from men. A study by Trinidad and Normore (2005) revealed that women adopt democratic and participative leadership styles in the corporate world and the education sectors. Another study by Rosener (1990) indicated that women are more likely than men to use transformational leadership which is motivated by transforming their self-interest into the goals of the group. These characteristics of transformational leadership relate to female values developed through socialization processes that include building relationships, communication, consensus building, power as an influence, and working together for a common purpose. In addition to this, Bass and Riggio (2006) also noted that women exceed men in transformational leadership and men exceed women in transactional leadership. Bass and Stogdill (1974) also suggested that women are slightly more likely to be described as charismatic, as women scored higher on the transformation factor than men. Also, the transformational, empowering, and collaborative style of leadership is associated with women while the more directive and authoritarian styles are traditionally associated with male leaders (Cubillo and Brown, 2003). Furthermore, Ndongko (1999) indicated that women are by nature accommodating, patient, gentle, and have better human relations and communication skills that are indispensable for organizations to improve their performance.

### **2.3 Current Status of Women in Leadership**

Though women's educational attainment and participation in the workforce have continually increased, their advancement to leadership positions has been slow (Federal Glass Ceiling Commission, 1995). Women's underrepresentation in managerial positions in business is not specific to a particular country or industry. Several studies in different countries show that the increase of women in managerial positions is not

proportional to the total number of the work force and their representation in top-level managerial positions (Caralyst, 2012). Furthermore, their study revealed that women held 14.3% of executive officers positions at Fortune 500 companies, while more than one-quarter of the companies had no women executive officers. Similarly, of the FTSE 100 companies, women held only 15% of board seats and 6.6% of executive positions in 2012 (Sealy and Vinnicombe, 2012). This shows that women's participation in leadership positions is very low and not proportional to their number.

#### **2.4 Current status of women's participation in managerial positions in Ethiopia**

In Ethiopia, the participation of women in various positions is very low. Although they represent 49.8% of the Ethiopian population (CSA, 2017), and contribute mainly to food production and others, they have not shared the fruits of development equally with their male counterpart. They experience multiple forms of deprivations such as longer working days, women-specific ill health, and low levels of education relative to men, lack of adequate representation in leadership and decision-making positions (Sosena&Tsehai, 2008). In Ethiopia, gender-based discrimination, lack of protection of basic human rights, violence, lack of access to productive resources, education, and training, basic health services, and employment are widespread (NCTPE, 2003).

Women experience lower socioeconomic status in general and hence are marginalized from making decisions at all levels. Nonetheless, women are poor in terms of access to resources, as a survey conducted by the Central Statistical Authority (CSA, 2017) showed that women account for less than half (43%) of the total employees in the country. Considering the percentage of female employees from the total number of employees by employment type, the highest was in domestic activities (78%), followed by unpaid activities (59.3%). In other types of formal employment, the percentage of female workers is less than 35.9% (CSA, 2017). On the other hand, the survey showed an over-representation of female workers in the informal sector. About 58% of working women work in the informal sector whereas the percentage of working men in the informal sector was 37.7 %. Furthermore, women make up 25%, and 18% of the administrative profession and scientific job categories, respectively, indicating that top and middle-level positions are overwhelmingly dominated by men (Federal Civil Service Commission, 2005). This concentration of women in the informal sector positions has implications for their earnings. In this regard, the survey showed four out of ten women civil servants earn Birr 300 a month compared to two out of ten men (Federal Civil Service Commission, 2005).

#### **2.5 Determinants of women's participation in managerial positions**

There are many factors listed in different works of literature as the main determinants of the low participation of women in leadership positions. Women's educational level is improving in many parts of the world today in which women are outperforming men and thus women do not lack competence or know-how when it comes to demanding positions. Nevertheless, the number of female leaders is low in many parts of the world. According to Mayer, Caruso & Salovey (1999), Stereotyping related to women managers is still prevalent in a lot of organizations: women managers lack the commitment and purpose required to make it to the top levels. The under-representing of women hurt organizational performance, employee morale especially women employees, and the overall economy. As a result, organizations lose the opportunity to capitalize on the skills and talent of a portion of their workforce. Further, when employees perceive a lack of women in top management, they may form ideas about the implicit values and culture of the organization, such as it is discriminatory in its hiring and retention practices. There are so many reasons that hinder

women from moving to a top managerial position and from those factors some of the key reasons are described as follows.

### 2.5.1 Personal Factors

Women's lack of confidence to succeed often leads to making decisions that affect their career prospects. The sense of diminished self-efficacy is often shaped by the social context in which there are limited role models and highly gendered professional stereotypes and notions of leadership. Among the personal factors that hinder women's participation in a leadership position the following are the major ones:

**Double burden;** Women are improving their professional opportunities, yet are still responsible for the majority of the chores and care giving duties, also known as the double burden syndrome. This syndrome is particularly experienced in the African and Asian regions, which reflects the responsibility for both work and household (McKinsey, 2007).

**Self-Confidence:** A major problem relates to women's confidence, in both the beliefs in their abilities, as well as in the capability of communicating confidently. For example, a study amongst MBA women shows that while the majority of women consider themselves equally capable as their co-workers, the majority of men consider themselves more capable than their co-workers Eagle (2003). In an environment where the behaviors expected are still male-dominated, female-specific communication can be interpreted negatively.

**Gender Bias and stereotypes:** Unfortunately, women do experience a strong gender bias when being evaluated for promotions on both their level of performance as well as their potential impact. Studies within professional groups show that women have significantly worked harder to be perceived as equally competent as men (Lyness&Heilman, 2006). Moreover, unfortunate assumptions are sometimes made about women's ambitions and abilities.

Therefore, the study hypothesizes that:

**Hypothesis 1. (H<sub>1</sub>): personal factors have a negative significant effect on women's participation in managerial positions.**

### 2.5.2 Socio-cultural factors

According to Shin & Bang (2013), societal level forces and policies perpetuate assumptions and stereotypes which present challenges to women in leadership roles. Legislation and policies related to employment equity, human rights, access to affordable daycare, and reproductive rights have a profound impact on the ability of women to advance in the workplace. Social norm driven by media perpetuates gender stereotypes by using images to reinforce gendered notions of leadership, often presenting men as "experts". Stereotypes are further perpetuated when female executives are portrayed as anomalies. Media images show women in the home and as younger than men, which communicates and reinforces perceptions of female professional incompetence and unsuitability for a leadership position. Pervasive stereotypes present women as lacking the 'right stuff' to be leaders, especially in the traditionally male-dominated domain such as business and politics. A significant social feature resides in the double if not triple responsibilities of women: In most countries, women are perceived to have primary responsibilities as wives and mothers. But in many cases, either as a result of a preference for personal development or out of sheer economic necessity, women also go

out to work in the employment market. Managing these different occupations and their consequent responsibilities is not an easy task for anyone (Willis, 1991).

Therefore, the study hypothesizes that:

**Hypothesis 2. (H<sub>2</sub>): socio-cultural factors have a negative significant effect on women's participation in managerial positions.**

### 2.6.3 Organizational Factors

Organizations' internal culture and structure affect women's career possibilities and participation in various managerial positions. According to a survey published by the Global Gender Gap Report (2020), a masculine/patriarchal corporate culture is the main barrier for women to rise to senior management positions.

Many companies are still considered to prefer the masculine way of leading and performance. A study by Talouselama (2013) indicates that the most significant obstacle to women in their career development and their advancement to leadership positions is the male-preferring business culture. Organization policy, organization culture, and perception of the management towards the advancement of women in higher roles are some of the factors under organizational factors that hinder women's advancement to managerial positions. Most organizations in the business arena are reluctant to invest in women employees, as they perceive women may quit the job and they have fewer promotion opportunities, despite having the high coordinating ability (NiluferAzeez&Priyadarshini, 2018).

Several studies indicate that gender bias in recruitment, succession planning, promotion, and evaluation prevent women from advancing to managerial positions. Oakley (2000) indicated corporate practices as a major barrier to women's career advancement. In addition, according to Fagenson (1990), corporate culture is described as a fundamental reason for women's absence from management and leadership positions in that it restricts women's career development and inhibits women's entry into and advancement in the workplace. Furthering, Jabeen& Mirza (2011), identified the major organizational factors that impede women's participation in leadership positions include gender stereotyping, unfair recruitment and assignment, limited training opportunities, lack of women-friendly policies, lack of flexible work arrangements, absence of women from decision making bodies and lack of networking and mentoring opportunities. Hence, the study hypothesizes that

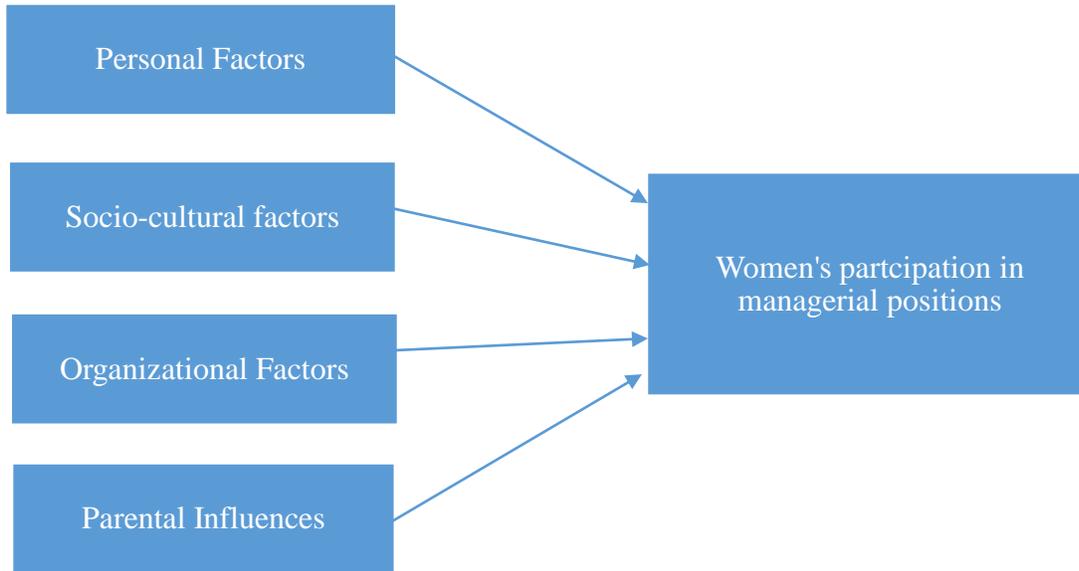
**Hypothesis 3. (H<sub>3</sub>): organizational factors have a negative significant effect on women's participation in managerial positions.**

### 2.4 Parental influences

According to McNair& Brown (1983), a perceived parental encouragement or discouragement has a greater impact on the aspirations of children and is the primary significant predictor of occupational expectations for both genders. Several studies reported a positive relationship between the encouragement given to children by their parents and the children's educational and occupational aspirations as well participation in leadership and a negative relationship between discouragement of children by their parents and the children's educational and occupational aspirations participation in leadership (Alexander and Eckland, 1975; Hauser, 1972; Hout& Morgan, 1975; Kandel& Lesser, 1972; Wilson &Portes, 1975). There is some evidence

that boys receive more parental encouragement than girls and that is more effective for boys than girls (Hout& Morgan, 1975). Hence, the study hypothesizes that

**Hypothesis 4. (H<sub>4</sub>): parental influences have a negative significant effect on women's participation in managerial positions.**



**Figure 1 Conceptual framework of the study**

### 3. Materials and Methods

#### 3.1 Research methodology

A quantitative research approach and cross-sectional survey design were utilized to examine the determinants of women's participation in managerial positions at the University of Gondar. The study has employed an explanatory type of research. The population is all female employees of the University of Gondar. 4837 permanent employees are working in the selected area. Among the 4837 staff, 266 employees were selected as a sample by proportional stratified sampling. The sample size was determined by Yemane's (1967) formula.

**3.2 Measurement and variables**

A self-report scale measure was used ranging from Likert scale “1” Strongly disagrees and “5” strongly agree for all the constructs of the study. All scales were adopted from previous studies.

**Independent and dependent Variables:**

The independent variables of this study were factors affecting women’s participation in managerial position dimensions of personal factors, socio-cultural factors, organizational factors, and parental influences. The dependent variable of the study was women’s participation in managerial positions. This study has employed measures that are adopted from previous studies. The following table 1 describes the operational variables and the number of items.

**Table 1 Measurement of Variables**

	<b>Variables</b>	<b>Number of items</b>
<b>Independent Variables</b>	Personal factors	10
	Socio-cultural factors	6
	Organizational factors	13
	Parental influences	3
<b>dependent Variables</b>	Women’s participation in a managerial position	6

**3.3 Data analysis techniques**

Descriptive statistics were utilized to analyze the demographic information collected from the respondents. Furthermore, correlation and multiple regression were utilized to examine the determinants of women’s participation in managerial positions. Responses were analyzed through the SPSS (Statistical Package for Social Sciences) version 23.

The model for multiple regression analysis is formulated as follows:

$$\text{Determinants of women’s participation in managerial positions} = f(\text{PF, SCF, OF, PI}) \dots\dots\dots 1$$

$$\text{Determinants of women’s participation in managerial positions} = B_0 + B_1\text{PF} + B_2\text{SCF} + B_3\text{OF} + B_4\text{PI} + U_i \dots\dots\dots 2$$

Where  $B_0$ ..... constant

$B_1, B_2, B_3, B_4$ .....coefficient of PF, SCF, OF, PI respectively measured by sums average scored.

U<sub>i</sub>-----Disturbance term, affect women's participation in managerial positions other than CB, LD, MS, TR, SV, FM

PF.....Personal factors

SCF.....Socio-cultural factors

OF.....Organizational factors

PI..... Parental Influences

### **3.4 Procedures of Data Collection and consents from the participants**

In this study, principles such as those of consent, and anonymity were adopted. The prospective participants chosen for this research were asked for their consent to participate in the survey. Details such as the investigator's credentials, the purpose of the study, the procedures to be followed, a confidentiality statement, the rights of the participants, and the researcher's contact information were disclosed. All prospective research participants were fully informed of the procedures and risks involved in the research and relied on to consent to participate. In addition, prospective participants were informed that their responses would be used to derive statistically valid trends and that the information gathered would be securely stored and would be used only for academic research.

Personal information was limited to that necessary for conducting the research. The questionnaires have been passed out to the respondents during business hours at their workplace. But before this, permission has been requested from the coordinator of human resource management of the university. The coordinator wrote a "to whom it may concern letter" for campus officers. After the campus officers checked the letters, they allowed me to collect the required data. Following this, I have contacted employees and asked for their consent to participate in the study. All employees I have contacted were voluntary to participate in the study. Then, I have distributed my questionnaire. A cover letter with a clear objective of the study was typed on the questionnaire. I have collected the filled questionnaire after weeks the instrument was distributed.

## **4. Results and Discussion**

### **4.1 Respondents' Profile**

As tabulated in Table 2, single employees made up 42% of the sample while 41% are married. The age group that has the highest percentage is below 25 years with 39.4%, followed by between 25-30 years (35.7%). Nearly three-fifths of the respondents (57.6%) have a master's degree and 37.9 % have a bachelor's degree as their highest level of academic qualification. 41.3% of respondents have 5 – 10 years' experience, followed by less than 5 years (24.8%). The administrative staff made up 75.5% of the sample, followed by health science staff (11.6%), academic staff (10.5%), technical staff(1.1%) and community school staff (1.1%).

**Table 2 Demographic Information of Respondents**

	N	%
<b>Marital Status</b>		
Single	112	42
Married	110	41
Divorced	32	12
Widowed	12	4.5
<b>Age</b>		
Below 25	105	39.4
25 – 30	95	35.7
31 – 40	41	15.4
41 – 50	20	7.5
Above 50	5	1.8
<b>Education Level</b>		
Below Diploma	6	2.2
Diploma	9	3.3
First Degree	101	37.9
MA/MSc & Above	150	57.6
<b>Experience in Years</b>		
<5	66	24.8
5-10	110	41.3
11-15	54	20.3
>15	36	13.5
<b>Position</b>		
Academic staff	28	10.5
Administrative Staff	201	75.5
Technical Staff	3	1.1
Health Science staff	31	11.6
Community School Staff	3	1.1

**Source: Survey, 2021**

#### **4.2 The level of women’s participation in managerial positions and its determinants**

Table 3 below demonstrates the mean values and standard deviations of the independent and dependent variables of this study. The mean values of the variables namely: personal factors, socio-cultural factors, organizational factors, and parental influences are above three. Of all factors affecting women’s participation in managerial positions, socio-cultural factors have the highest mean with a value of 3.51. This implies that the patriarchal structures, gender role socialization, and decision-making role reside with men and management is stereotyped as masculine is particularly a big challenge for women’s participation in a managerial position at the University of Gondar. Next to socio-cultural factors, parental influences have a great effect on women’s participation in a leadership position. This indicates that lack of family support for leadership positions and parental influences to have children create barriers to the deficiency of women in leadership at the University of Gondar. Furthermore, the mean value of the dependent variable of the level of women’s participation in a

managerial position has a mean score of 2.20. This indicates that the level of women's participation in leadership positions is very low. And this is due to socio-cultural, parental, organizational, and personal factors.

**Table 3 Descriptive Statistics Value of Variables**

Variables	N	Mean	Standard Deviation
Personal factors	266	3.09	1.353
Socio-cultural factors	266	3.51	1.095
Organizational factors	266	3.29	0.998
Parental influences	266	3.38	1.246
Women's participation in managerial positions	266	2.20	1.08
<b>N</b>	<b>266</b>		

Source, Survey, 2021

**4.3 Relationship between the independent and dependent variables**

For the purpose to find the relationship of the independent variables with the dependent variable, Pearson product-moment correlation (r) was used. The correlation coefficient of the independent variables with the dependent variables is shown below in table 4.

**Table 4 Pearson Correlation Coefficients**

		PF	SCF	PI	OF	WPMP
PF	Pearson Correlation	1	1			
	Sig. (2-tailed)					
	N	266				
SCF	Pearson Correlation	.521**	1			
	Sig. (2-tailed)	.000				
	N	266	266			
PI	Pearson Correlation	.343**	.824**	1		
	Sig. (2-tailed)	.000	.000			
	N	266	266	266		
OF	Pearson Correlation	-.585**	-.910**	-.774**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	266	266	266	266	
WPMP	Pearson Correlation	-.518**	-.848**	-.716**	-.962	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	266	266	266	266	266
** . Correlation is significant at the 0.01 level (2-tailed)						

As per the above correlation result, all independent variables were negatively and significantly correlated with women’s participation in managerial positions. The level of relation between these significant variables ranged from  $r = -.518$  ( $p < .01$ ) to  $r = -.962$  ( $p < .01$ ). Organizational, socio-cultural, and parental factors had a strong negative correlation with women’s participation in managerial positions with  $r = -.962$  ( $p < .01$ ),  $r = -.848$  ( $p < .01$ ), and  $r = -.716$  ( $p < .01$ ) respectively. The relation between personal factors and women’s participation in managerial positions was also moderate with a correlation coefficient of  $r = -.518$  ( $p < .01$ ). The results indicated that as the organizational, socio-cultural, parental, and personal factors increases, women’s participation in various managerial positions at the University of Gondar decreases and vice versa. Among these factors, organizational factors are highly related to women’s participation in managerial positions. This result supports the conclusions of Jabeen& Mirza (2011) which revealed that organizational factors like gender stereotyping, unfair recruitment and assignment, limited training opportunities, lack of women-friendly policies, lack of flexible work arrangements, absence of women from decision making bodies, and lack of networking and mentoring opportunities prevent women from managerial positions.

**4.4 Regression analysis on the determinants of women’s participation in managerial positions**

To examine the determinants of women’s participation in managerial positions, multiple regression analysis was employed. Before conducting a regression analysis, the study must be sure that underlying assumptions have been met. Before conducting this regression, the study checked the robustness of the model and all underlying assumptions of the model have been met.

**Model summary**

Multiple regression analysis was carried out to see which predictor contributes substantially to the model’s ability to predict the outcome. To this end, a linear regression analysis is done to get the necessary outputs to generalize the finding of this study. The regression analysis is conducted for the four independent variables against the dependent variable (women’s participation in managerial positions). From the outputs of multiple linear regression analysis, table 4 below shows the model summary of this study.

**Table 5 Model Summary**

Model	R	R square	Adjusted R square	Standard error of the estimate	Durbin-Watson
1	.966	.934	.933	.267	.122

- a. Predictors (Constant) Personal factors, Socio-cultural factors, Parental Influences and Organizational factors
- b. Dependent variable: women’s participation in managerial positions

The above model summary table shows the relationship between the determinants of women’s participation in managerial positions and women’s participation in leadership positions. As the table shows,  $R = .966$ , are the values of the multiple correlation coefficients between the predictors and the outcome. The result indicates that there is a strong relationship between the factors and women’s participation in managerial positions. The next column gives us a value of  $R^2$ , which is a measure of how much of the variability in women’s participation in managerial positions, is accounted for by the predictors of organizational factors, parental influences, personal factors, and socio-cultural factors. For this model  $R^2$  value is .934, which means that independent variables of organizational factors, parental influences, personal factors, and socio-cultural

factors account for 93.4% of the variation in women’s participation in managerial positions. The adjusted R<sup>2</sup> gives us some idea of how well our model generalizes. For this model, the adjusted R<sup>2</sup> is .933, which is very close to the value of R<sup>2</sup> = .934, indicating that the cross-validity of this model is very good.

The next part of the regression analysis output is the ANOVA which tests whether the model is significantly better at predicting the outcome than using the mean as a ‘best guess’ (Field, 2009). This output is depicted in table 6 below.

**Table 6 ANOVA test**

Model	Sum of squares	df	Mean Square	F	Sig.
1 Regression	263.801	4	65.950	923.489	.000 <sup>a</sup>
Residual	18.639	261	.071		
Total	282.440	265			

- a. Predictors (Constant) Personal factors, Socio-cultural factors, Parental Influences, and Organizational factors
- b. Dependent variable: women’s participation in managerial positions

The above table shows the ANOVA output which tells us whether the model is a significant fit for the data overall. The result indicates that the independent variables significantly predict the dependent variable, F (4, 261) = 923.489, p < .0005. This means that the model is a significant fit in explaining women’s participation in managerial positions by independent variables dimensions of organizational factors, parental influences, personal factors, and socio-cultural factors.

The last part of the regression output is concerned with the parameters of the model. This output is shown in table 7 below.

**Table 7 Coefficients for the variables**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7.351	.312		23.597	.000
Personal factors	-.103	.026	-.080	-3.972	.000
Socio-cultural factors	-.131	.047	-.121	-2.804	.005
Parental influences	-.060	.030	-.059	-2.037	.043
Organizational factors	-1.272	.045	-1.164	-28.445	.000

- a. Predictors (Constant) Personal factors, Socio-cultural factors, Parental Influences, and Organizational factors
- b. Dependent variable: women’s participation in managerial positions

The above model parameters table shows the individual contribution of variables to the regression model. The first part of the table gives us estimates for these b-values and these values indicate the individual contribution of each predictor to the model. According to Field (2009), if the value is positive we can tell that there is a positive relationship between the predictor and the outcome, whereas a negative coefficient represents a negative relationship. For these data, all four predictors have negative b-values indicating

negative relationships. That means there is a negative relationship between the independent variables (organizational factors, parental influences, personal factors, and socio-cultural factors) and women's participation in managerial positions. So, as organizational factors, parental influences, personal factors, and socio-cultural factors increase, women's participation in managerial positions decreases and vice versa. The b- values indicate to what degree each independent variable affects women's participation in managerial positions if the effects of all other predictors are held constant. As indicated in the table, the unstandardized coefficients of the variables is personal factors ( $\beta = -.103$ ,  $p = .000$ ), and socio-cultural factors ( $\beta = -.131$ ,  $p = .005$ ), parental influences ( $\beta = -.060$ ,  $p = .043$ ), and organizational factors ( $\beta = -1.272$ ,  $p = .000$ ).

The final predictive linear regression model is:

Women's participation in managerial positions =  $7.351 - .103$  (personal factors)  $-.131$  (socio-cultural factors)  $-.060$  (parental influences)  $-1.272$  (organizational factors)

The result of multiple regression analysis is also vital to see the comparative effect of independent variables on the dependent variable. In this regard, the result indicated that organizational factors generate the highest standardized beta coefficients ( $\beta = -1.164$ ,  $p = .000$ ). This indicates organizational factors are a critical factor in determining women's participation in managerial positions at the University of Gondar. This highest beta coefficient implies that organizational factors make the strongest contributor to women's low participation in managerial positions. The result indicated that organizational (institutional) factors have a decisive contribution to the low participation of women in the University of Gondar managerial positions.

## 5. Discussion and hypothesis testing result

The objective of this study was to examine the determinants of women's participation in a managerial positions at the University of Gondar female employees. The result and the hypothesis test results are discussed below:

### 5.1 The effect of personal factors on women's participation in managerial positions

Personal factors include differences in communication styles, double burden syndrome, lack of confidence, and gender bias and stereotypes McKinsey, (2007), Eagly(2003), Lyness & Heilman, (2006). The first hypothesis was

**H<sub>1</sub>: personal factors have a negative and significant effect on women's participation in managerial positions**

The coefficient of the linear regression (Table 7) indicates a negative and significant effect of personal factors ( $\beta = -.103$ ,  $p = .000$ ) on women's participation in managerial positions. As a result, H<sub>1</sub> is accepted. This is consistent with the findings of McKinsey, (2007), Eagly(2003), and Lyness & Heilman, (2006) that personal factors prohibit women from advancing into managerial positions.

### 5.2 The effect of socio-cultural factors on women's participation in managerial positions

According to Shin & Bang (2013), societal level forces and policies perpetuate assumptions and stereotypes which present challenges to women in leadership roles. The second hypothesis was

**H<sub>2</sub>: socio-cultural factors have a negative and significant effect on women's participation in managerial positions**

As indicated in the coefficient table, learning and development have a positive significant effect on employees' knowledge transfer performance with ( $\beta = -.131, p = .005$ ). This value shows that the 1% increase in socio-cultural factor causes a 13.1% decrease in women's participation in managerial positions. Therefore, H<sub>2</sub> is accepted. This result is supported by Mutiso(2012), who concluded that socio-cultural beliefs are a key hindrance to women's assumption of leadership positions.

**5.3 The effect of parental influences on women's participation in managerial positions**

According to McNair& Brown (1983), parental influences incorporate a perceived parental encouragement/discouragement of the aspirations of women for leadership positions. The third hypothesis of the study was

**H<sub>3</sub>: parental influences have a negative and significant effect on women's participation in managerial positions**

The coefficient table showed that parental influences have a negative statistical relationship with women's participation in managerial positions with ( $\beta = -.060, p = 0.043$ ). As a result, H<sub>3</sub> is accepted. It means that when the level of parental influence is increased by 1 percent, the degree of women's participation in managerial positions will be decreased by 6 percent. The result indicated that the parents of women negatively affect the women's aspirations for leadership positions. This result is consistent with (Alexander and Eckland, 1975; Hauser, 1972), who conclude that parents have a significant effect on later women's aspirations and participation in various leadership positions.

**5.4 The effect of organizational factors on women's participation in managerial positions**

Organizational factors are expressed through organizations and their internal cultures affect women's career possibilities and leadership participation. The fourth hypothesis was

**H<sub>4</sub>: organizational factors have a negative and significant effect on women's participation in managerial positions**

The coefficient table indicated that organizational factors are a negative statistical significance ( $\beta = -1.1272, p = 0.000$ ) with women's participation in leadership positions. Therefore, H<sub>4</sub> is accepted. The result indicated organizational factors are the most significant barrier and are a major reason that we don't see more women at the various levels of managerial positions in the University of Gondar and similar institutions. This result is consistent with the findings of Nilufer&Priyadarshini, (2018) and Talouselama (2013), who concluded that organization policy and culture, perception of the management towards the advancement of women in higher positions plays an important role in hindering women in managerial positions.

## 5.6 Implications of the study

This study empirically examined the determinants of women's participation in managerial positions at the University of Gondar. This result supported that personal, organizational, parental, and socio-cultural factors determined women's aspirations for managerial positions. However, the strength of the factor's effect on women's participation in leadership varied. From these barriers, organizational and socio-cultural factors had the highest negative significant effect. This indicates that the University of Gondar is still considered to prefer the masculine way of leading and performing academic and administrative activities. Furthering, the university's policy, culture, strategy, structure, and perception of leaders toward females in higher roles play a pulling factor for women into leadership. This result also implies that the university is reluctant to invest in developing women for various positions, as they perceive women may quit their job. Furthermore, as is the case in many developing countries, women in Ethiopia traditionally have been consigned to strict societal roles that limited their activities to household chores and childcare activities only and this plays its role in the low participation of women in managerial positions in the university.

The study implies that it is crucial for both the university's men and women employees and the management body to be aware of these barriers and work together to minimize them. Organizational, socio-cultural, parental, and personal factors underlying causes of the women's low leadership participation that significantly impacts the university's diversity, holistic, balance, and quality service delivery.

Furthermore, the result indicated that the university's community could play a significant role in support of women's leadership participation. In general, the research findings have significant practical implications for the university management body which can gain a deeper understanding of the women's low level of managerial participation and a clearer picture of what kind of factors affect women's participation in leadership positions.

## 6. Conclusions

This study has the profound potential to support the management of higher education institutions in understanding the determinants of women's participation in leadership. It also determined the relationship of organizational, parental, socio-cultural, and personal factors to women's participation in leadership. Consequently, it investigated which factors emerge as the most significant factor in women's low participation in leadership.

The study reveals that organizational, parental, socio-cultural, and personal factors were significantly negatively related to women's participation in managerial positions. This implies that the higher the factors exhibited in the organization, the lower women's participation in leadership.

The study results indicated that organizational factors had the highest contribution in explaining to low level of women's leadership participation and appeared as the most important factor. This result highlighted the importance of improving the organization's policy, strategy, structure, and climate and more effort should be exerted on this component if higher officials of the university need to increase the proportion of females in the decision-making and management roles.

The conclusion from this is that the scarceness of women in a higher education management position is indicative of the presence of stereotypical masculine, personal mindsets, and an unfriendly institutional setup for women. Hence, the university needs to collaborate with its human resources department and deliverology

unit to create training programs that develop leadership talent, develop application-based workshops and assessments, develop training reinforcement and metrics, and educate employees about the barriers to attracting more women to the academic and administrative managerial roles. Engaging females in the decision-making and leadership process and the dedication and commitment of higher officials to reduce the gap will have significant importance for improving its service delivery quality, student satisfaction level, and overall performance indicators. Generally, higher education institutions should aware that only after these barriers are removed will women advance in large numbers to various managerial positions. It's the only way to achieve more diverse, inclusive, and balanced leadership across higher education institutions.

## 7. Limitations and future research directions

The study data were collected from the University of Gondar female employees. The results could vary in other organizational contexts even because of the variation of determinants of women's participation in leadership under consideration. Furthermore, this study did not consider all determinants that affect females' participation in leadership. Therefore, future studies can produce a more comprehensive result by including other important variables like the emotional intelligence of females. Finally, the study suggests that future studies should consider the experimental or longitudinal approach and mediating variables to obtain a clearer understanding of the factors affecting women's participation in leadership.

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### Data availability statement

The data that has been used is confidential.

### Declaration of interest's statement

The author declares no conflict of interest.

### Additional information

No additional information is available for this paper.

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