A Study on Exploring the Individual Factors that Affect the Role of Women in Higher Education

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Abstract: The beginning of this article with the skeleton of the idea behind provides ways for discussion and finds solution. Education is always considered as a tool of empowerment of women. Total enrolment in Higher education is estimated to be more than 34.2 million with 18.5 million boys and 15.7 million girls constitute 45.5% of total enrolment. Distance enrolment constitutes about 11.4% of the total enrolment in higher education, of which 46% are female students. The estimate total number of teachers is approximately 14,73,255 out of which more than about 614% are male teachers and 38.6% are female teachers. These statistical reports were the root cause for the author to analyze the role of women in higher education. Higher Education is considered essential for any nation's culture, social and economic development, as the effective participation of women is very vital at all levels of development. This study aims to investigate the factors that impact women in higher education which they may enhance women's learning process. To reach the aforementioned goals, a sample containing 120 women in higher education was selected via a cluster sampling and path analysis method was used to test the hypotheses. The results show that there is a significant model fit among the individual factors which affect the role of women in higher education.

Keywords: Higher education, path analysis, empowerment, women.

INTRODUCTION

India is a democratic country. The success of democracy depends upon education of its citizens.

The Constitution of India also states that there is provision of educational opportunities to all people of the country. Education is one of the most powerful instruments for reducing poverty and inequality of society. Education should always aim at total development of an individual's personality. The percentage of women attending college, matriculating from graduate schools, and obtaining doctorate degrees has dramatically increased.

No longer women are associated with low expectations in education, public life and the workforce. Women occupy the highest leadership roles in education, professions, and businesses. Laff (2006), in the banking industry the ranks of women in senior level management positions have increased from 19% to 31% during 2003 to 2006. The highest number of enrollment in Arts/Humanities/Social Science courses. The total number of students enrolled in this area are 107.07 lakh out of which 46.9% are male and 53.1% are female. Education is the key to enhance India's competitiveness in the global economy. Education is the key to enhance India's competitiveness in the global economy.

The percentage of women at the corporate executive level in the banking industry has increased 37% (from 27% to 37%) in this same three-year period. Women towards leadership roles have been widely increased. 1.8% of Fortune 500 companies had women as CEOs in year 2005 (Helfat, Harris, & Wolfson, 2006). 13% have female as corporate board members and 16% of them are female corporate officers (Laff, 2006). Women are still struggling to obtain business chief executive leadership roles. Helfat, et al. (2006), women in top management positions were nearly non-existent from the 1970s to the early 1990s.
Information from Powell (1999) and Helfat, et al., (2006) study states that there is a dramatic increase of women in business leadership roles.

**Background of Higher Education in India**

In India Higher Education had its roots in early time as well. In the 5th century BC Taxila was the earliest recorded centre of higher education in India although there is a debate with its status – whether it was university or not. In the modern sense of the term University the Nalanda University was the oldest University system of education in the World. With the establishment of the British Raj in India, the western education became ingrained into Indian society. But in the pre-independence era there was very limited access to Higher Education. From the year 1883 till, the independence both the number of colleges and the enrollment of students in India were found to be very low.

Lopez and Ensari (2014) found a connection between, gender, leadership style and organizational success. Lopez and Ensari’s 2014 research provides supportive evidence of the role incongruity theory of prejudice toward women noting that women who behaved in an autocratic leadership style were viewed unfavorably if the organization failed. The incongruence between female behavior and masculine characteristics associated with leadership creates a prejudice against female leaders (Eagly, 2004).

Pervasive gender stereotypes that women are nurturing and men are aggressive contribute to the bias toward women in leadership (Heilman, 2012; Madden, 2011). Women are associated with communal characteristics that highlight a concern for others, whereas men are viewed as possessing agentic characteristics that emphasize confidence, self-reliance, and dominance (Johnson et al, 2008; Madden, 2011).

Heilman (2012) calls these descriptive gender stereotypes and prescriptive gender stereotypes. The role congruity theory of prejudice toward female leaders is a prescriptive stereotype where there is a greater perceived mismatch between agentic leadership characteristics and female gender stereotypes (Eagly & Karau, 2002). According to Heilman (2012), descriptive and prescriptive gender stereotypes are a precursor prejudicetoward female leaders and negative attitudes toward women in positions of power. Furthermore, Lanaj & Holleinbeck (2015) found it credible evidence that women who exhibit agentic leadership behaviors may experience social repercussion and be less liked among their subordinates.

Singh et al. (2012) conducted a study on workers’ perception on good or bad leaders. Women who displayed masculine leadership styles were seen as the worst bosses (Singh et al., 2012). While, women were more likely to view men and women as equals in their leadership abilities, men significantly ranked men higher in all leadership behaviors, including the perception that their worst bosses were women and the best were men (Pfaff et al., 2013; Singh et al., 2012).

Laff (2006), while this information can be explained in part by female preferences, it can also be attributed to educational choices. Some analysts believe that the educational choices women make explain the low number of executive and managerial women in tactical, science, and engineering fields.

Nelson and Lavasque (2007), women in the United States only comprise 25% of the doctorates in math and science and less than 17% in engineering and computer and information sciences. The figures suggest education is an enabler of the glass ceiling.

Likert, (1961) building on the findings of the Survey Research Center and the Research Center for Group Dynamics at the University of Michigan describes five conditions for effective leadership behavior. The items include (a) Principle of Supportive Relations, (b) Group Method of Supervision, (c) high performance goals, (d) technical knowledge, and, (e) coordinating, scheduling, and planning.

**Objectives of the Study**

To determine the role of women in higher education

To develop a path model for the role of women in Higher Education

**Factors Affecting role of Women in Higher Education**

Problems of equality of Educational Opportunities:

In India there are some reasons which create inequality of educational opportunities.

These reasons are:

1. Difference in economic status of home.
2. Gender disparities.
3. Regional Imbalance.
4. Physiological difference.
5. Difference in home conditions.
6. Desparity between backward and advanced classes.
7. Non-availability of adequate opportunities.
8. Difference in mental and physical abilities.

FACTORS OF THE STUDY

Barriers

Barriers vary significantly from organization to organization, they can create a huge roadblock preventing women from advancement to top management. (Baker, 2003).

Selection Process

The pool of women that are qualified for promotion to executive positions is quite small and therefore women simply cannot be promoted. According to Burke and Nelson (2000), 82% of firms stated that lack of general management skills and line experience was a major contributing factor in their decisions not to promote women. Existing top management positions are held by men who tend to promote other men who are similar to themselves (Van Vianen & Fischer, 2002).

Workplace Relationships

Many women are unable to find a female mentor. The needs of women from their mentors also tend to differ from the needs of men. Male mentors tend to be resistant to mentor a woman because they perceive women as more emotional, not as skilled at problem-solving, and because of the risk of workplace sexual harassment issues (Hanson, 2008).

Globalization

There exist natural ability of women to adapt is higher than that of men, a large number of women have been unable to accept the culture shock and fail in their new environments. Women also experience resistance in other cultures and customs to female leadership. Many countries will simply not deal with a women executive because of their beliefs and perceptions that women are incapable of doing business effectively (Strout, 2001).

Internal Motivation

Recent study indicated that 55% of women not in management positions desire to be in the top most levels of their organizations. Annis (2008) finds many women lose their drive to excel due to the many obstacles met along the path of becoming a manager. These obstacles include discrimination, stereotyping, prejudice, family demands, and lack of opportunities (Emory, 2008).

Life-style Conflicts

For many women, in addition to the roles they hold in their companies, they remain the primary caretakers for their families (Hughes, Ginnett, and Curphy, 2009). As the time constraints and demands of a job become more important upon, promotion forces many women to choose between family and career. According to Jack and Suzy Welch (2007), very few women CEOs and women executives have children due to the affect it would have on their career. Conversely, many women have voluntarily left their jobs due to family decisions (Baxter, 2000; Wallace, 2008).

While a decreasing number of women are taking pregnancy or childcare leaves, 32% of women still leave their jobs once they have children.

Stereotyping and Leadership Styles

Stereotypes of women include the expectation of being modest, quiet, selfless, and nurturing (Eagly and Carl, 2003). Leadership styles are closely associated with common perceptions and stereotypes of women leaders (Goff, 2005; Henderson, 2004). In early 1990 studies found that men emerged as task-oriented leaders more frequently than women who emerged as social leaders more frequently than men (Marrujo & Klender, 1992). social leadership style of women was more accepted and valued in some circumstances (Jogulu & Wood, 2006).
Main determinants Influencing Women In Completing Higher Education:

There are different factors which are responsible for influencing women in completing higher education. Some of these are mentioned below.

a) In comparison with men, women are more firm in their mission of success. So in education stream also they are strongly motivated to succeed.

b) As they are firm in their mission, so their performance is also remarkable. Thus on the basis of their merit they occupy the domain of higher education.

c) Now a day the tendency of prejudice against women has been reduced and this helps women to enter in the domain of higher education.

d) Increased number of higher educational institutions helped women to complete their higher studies.

e) There are some courses which provide scholarship facilities for women. This also helps many poor female students to complete their higher studies.

f) There are many institutions which have the provision of hostel facilities for girls’ students. This is also an important factor for girl students to complete their higher studies.

g) Educational institutions meant for girls attracted many conservative families to get admitted their wards in higher educational institutions.

h) Expectation for education-based employment is very high amongst women. This factor works very silently in completing their higher studies.

i) In some cases women students get inspiration from the teachers working in higher educational institutions which help them to complete their higher studies.

j) Women zeal to take equal responsibility of the family pushes them to complete their higher studies.

k) It cannot be denied that lucrative pay scale for the employees working in higher educational institutions attracted women in higher studies.

l) In most cases women are dependent on male both in economically and in decision making and as such they suffer more. To get relief from this, they go for higher studies.

m) In some cases highly educated women are considered as equivalent to “dowry” of a bride.

n) Above all, it is fact that outlook of modern society has been changed in many respects which helps women to complete their higher studies.

Research Framework of the Study
Structural Equation Modeling Direct Effect Testing

The Structural equation model (SEM) is one of the analytic methods utilized for the present study. This method consists of a measurement model to define hypothetical latent constructs in terms of measured variables and a structural model to depict relationships among latent constructs. SEM is the multivariate method combining aspects of factor analysis and multiple regressions in analyzing a set of interrelationships among manifest and latent variables simultaneously. SEM allows incorporation of latent variables into the analyses unlike conventional analysis, which focuses solely on observed variables. Because SEM is not limited to relations among observed variables, it gives researchers more flexibility to study any combination of relation’s path analysis (only observed variables), CFA (only latent variables) and hybrid models (some observed and some latent variables). The structural model is the regression part of the latent variables (Baggozzi and Yi (1988). It specifies the link among the unobserved latent variables. It specifies that latent variables are directly or indirectly influence changes in the values of other latent variables in the model (Byrne, 1998).

The Generalized least squares and maximum likelihood method is employed in the estimation of this structural equation model. Generalized Least Squares (GLS) and Maximum Likelihood Method (MLM) is a commonly used conservative method that interactively improves parameter estimates to minimize a specific fit function (Hair et al., 1998).

Model Estimation

The original theoretical models are developed to investigate the Role of women in higher education. The next step is to assess the fit of the hypothesized model and sample data. This includes the fit of the model as a whole and the fit of individual parameters. The hypothesized models are tested by using two evaluating model fit.

PATH MODEL FOR THE STUDY

Figure Estimation for the Model

LEGEND:
G: Globalization  SP: Selection Process
WPR: Workplace Relationships  WLE: Women Leadership abilities
IM: Internal Motivation  LSC: Life-style Conflicts
SLS: Stereotyping and Leadership Styles
The chi square values of the hypothesized model indicate the soundness of the model as it is far from the values of the independence model. However, a probability value of less than 0.001 suggests a poor fit. This result is more likely related to a large sample size in a present study. Due to the Chi-square’s sensitivity to sample size, it is hard to gain a good sense of fit solely from the Chi-square values of the model. For these reason other indexes (SRMR, GFI, AGFI, CFI, NFI, RMSEA, and EVOI) of model fit are examined.

Several indexes are calculated and taken into account for identifying the final proposed model. These values provide evidence of the better fitting models: GFI (Goodness of Fit Index), AGFI (Adjusted Goodness of Fit Index), CFI (Comparative Fit Index), SRMR (Standardized Root mean Squared Residuals), RMSEA (Root Mean Square Error of Approximation), and NFI (Normed Fit Index), ECVI (The expected cross validation index).

### Table: Structural Equation Model Indices

<table>
<thead>
<tr>
<th>INDICES FOR ANTECEDENTS AND CONSEQUENCES OF KNOWLEDGE SHARING</th>
<th>MODEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness of fit index (GFI)</td>
<td>0.96</td>
</tr>
<tr>
<td>Adjusted Goodness of fit index (AGFI)</td>
<td>0.93</td>
</tr>
<tr>
<td>CMIN</td>
<td>67.3</td>
</tr>
<tr>
<td>CMIN/df</td>
<td>3.73</td>
</tr>
<tr>
<td>Root mean square residual (RMR) Mulaik (1989)</td>
<td>0.45</td>
</tr>
<tr>
<td>Parsimonious (PGFI)</td>
<td>0.37</td>
</tr>
<tr>
<td>RMSEA Estimate</td>
<td>0.07</td>
</tr>
<tr>
<td>ECVI Estimate</td>
<td>0.24</td>
</tr>
<tr>
<td>Probability of close fit (PCLOSE)</td>
<td>0.02</td>
</tr>
<tr>
<td>Akaike’s Information Criterion (AIC)</td>
<td>121</td>
</tr>
<tr>
<td>Browne-Cudeck Criterion (1993) (BCC)</td>
<td>122</td>
</tr>
<tr>
<td>Bayes Information Criterion (BIC)</td>
<td>136</td>
</tr>
<tr>
<td>Bazdogan’s (1987) CAIC</td>
<td>163</td>
</tr>
<tr>
<td>Bentler and Bonett’s (1980) (NFI)</td>
<td>0.82</td>
</tr>
<tr>
<td>JamesMulaik and Brett (1982) PNFI</td>
<td>0.30</td>
</tr>
<tr>
<td>Hoelter (1983) Critical N (99% CI)</td>
<td>167</td>
</tr>
</tbody>
</table>

The Results of path analysis for the model are shown in the Table above suggests a good fit with the data. The parameters are all statistically significant, thus supporting the theoretical basis for assignment of indicators to each construct.

### RMSEA VALUES

<table>
<thead>
<tr>
<th>Model</th>
<th>RMSEA</th>
<th>LO 90</th>
<th>HI 90</th>
<th>PCLOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>0.073</td>
<td>0.055</td>
<td>0.092</td>
<td>0.02</td>
</tr>
<tr>
<td>Independence model</td>
<td>0.135</td>
<td>0.123</td>
<td>0.148</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The Root Mean Square Error of Approximation (RMSEA) estimates lack of fit compared to the saturated model. RMSEA of 0.05 or less indicates good fit, and 0.08 or less adequate fit. LO 90 and HI 90 are the lower and upper ends of a 90 percent confidence interval on this estimate. PCLOSE is the p value testing the null that RMSEA is no greater than 0.05.

All the items had good standardized item loadings on their respective constructs (above 0.82). All factors loading were also significant at p-value < 0.001. Overall, the hypothesized model which was found to have the best fit. The indices obtained from structural equation analysis of the models reveal that a reasonable fit is indicated between the data and the casual model.

- **H₀**: There is no significant model fit among the individual factors which effects of role of women in higher education.

- **H₁**: There is significant model fit among the individual factors which effects of role of women in higher education.

Since, there is a significant model fit among the individual factors which effects of role of women in higher education.

The, null hypothesis is rejected.
Apart from the all mention indices Holter’s Critical – N are also commonly seen, as acceptable level. These indices indicated an acceptable fitness between the model and the data Figure shows the path coefficients of this analysis. The entire six hypothesis paths were statically significant (either at p< 0.05 or p< 0.10 levels) and in the predicted directions, offering support the hypothesis.

Suggestions for Promoting Women Participation in Higher Education

a) Introduce attractive scholarships, stipends, and fellowships for poor students.
b) Provide counseling for family.
c) Make technical and skill-oriented higher education.
d) Extend state support for women.
e) Improve transportation facilities for women students.
f) Education policy has to facilitate women participation in higher education.
g) Establish more female educational institutions.
h) Provide Bank loan facilities for women students.
i) Establish higher educational institutions in rural and tribal areas.
j) Check sexual harassment, Grievance and Anti-ragging within and outside institutions.
k) Increase women teachers in co-educational institutions of higher education.
l) Increase women representations in decision making bodies of higher educational institutions.
m) Establish equal opportunity commissions for higher educational institutions.
n) Government should formulate and implement policies for stopping drop.

CONCLUSION

The majority of women and men felt education and training could increase the preparedness. Observation of the employment trends for females offers an interesting look at the evolving role of women. Although women have represented a low percentage of the workforce holding a professional position, the percentage of females in the professions is increasing.

Women should be educated to defend themselves apart from academic activities. The taboo should be broken and women should be provided wider horizon to choose their area of interests and they should be allowed to pursue them. The education given to women should be able to make them self reliant in all conditions of life physically as well as mentally. There is lack of women seeking these leadership positions because of failure of these roles to provide an opportunity for work-life balance.

Bibliography
