Linking women's glass ceiling beliefs and employee satisfaction: the mediation of engagement

Senthil Arasu Balasubramanian* and Remya Lathabhavan

Department of Management Studies, National Institute of Technology, Tiruchirappalli, India
Email: arasu@nitt.edu
Email: remyalathabhavan@gmail.com
*Corresponding author

Abstract: The role of employee engagement and satisfaction is very important in today’s world of changing labour market, technology, and job patterns. With an increase in women participating in the labour market, understanding their attitude towards the glass ceiling and its relationship with work engagement and job satisfaction is important for individual, organisational, and societal progress. This article studies the relationship between glass ceiling beliefs and job satisfaction through the mediating role of work engagement. Four hundred twenty women employees were surveyed as the sample for this study and structural equation modelling was used to understand the relationships. The relationship between glass ceiling beliefs and job satisfaction was found to be fully mediated by work engagement. The study recommends longitudinal studies for future studies in this area.

Keywords: glass ceiling beliefs; work engagement; job satisfaction; mediation; women’s career barriers; glass ceiling.


Biographical notes: Senthil Arasu Balasubramanian is an Associate Professor in the Department of Management Studies at National Institute of Technology, Tiruchirappalli, India. His research interests include stock price prediction using data mining techniques, performance management of SMEs, human resource development and career management. He has (co-)authored many publications in peer reviewed books and journals.

Remya Lathabhavan is a Research Scholar in the Department of Management Studies at National Institute of Technology, Tiruchirappalli, India. Her research interests include glass ceiling, human resource management and career progression.

Copyright © 2018 Inderscience Enterprises Ltd.
1 Introduction

Despite the increased participation of women in the workforce (Powell and Graves, 2003), women face significant challenges in the corporate world (Eagly and Carli, 2007; Blake-Beard, 2001). The barriers that impede a woman’s career advancement are referred to by the metaphor, ‘glass ceiling’, coined by Carol Hymowitz and Timothy D. Schellhardt (Wilson, 2014), even though the discourse surrounding this metaphor has been present among academicians and practitioners since the mid-seventies (Patton and Haynes, 2014). Different theories, viz., person centred theory, situational theories, interaction centred theory, human capital theory, social role theory and preference theory (Enid Kiaye and Maniraj Singh, 2013; Terjesen and Singh, 2008; Hakim, 2006), describe possible causes of the glass ceiling. However, there are, as yet, few theories that explain the glass ceiling from a holistic viewpoint, where all of the above theories are considered from a woman’s perspective. A woman’s views and assumptions about the glass ceiling are very important because they can, in themselves, go beyond stereotypical assumptions (Liff and Ward, 2001). The phrase “glass ceiling belief” refers to the set of views and beliefs held by women about the glass ceiling.

The rise of the field of positive psychology (Seligman and Csikszentmihalyi, 2014) has led to a better understanding of work-related well-being, in terms of factors such as work engagement (Bakker and Leiter, 2010). Work engagement has become a popular construct in the field of positive psychology (Albrecht, 2010; Bakker and Leiter, 2010) among practitioners and researchers.

Global competition, high paced innovation, new communication technologies, new career aspects and unpredictable changes in the labour market reaffirm the importance of being completely engaged in work (Akkermans et al., 2015; Derks et al., 2015; Shimazu et al., 2015; Timms et al., 2015). Although there are vast amounts of research work reporting on work engagement, very little deals with its implications on a women’s career.

Job satisfaction, a well-researched construct of numerous studies, has the glory of being part of many classic theories in management such as two factor theory (Herzberg, 1966), equity theory (Adams, 1963), and social influence theory (Salancik and Pfeffer, 1978). Being a well-researched area, studies in job satisfaction have also dealt with women’s view point on job satisfaction as compared to men’s (Furnham, 2012; Bender et al., 2005). Despite the fact that women’s expectations from their jobs, socialisation behaviour and value perception about the job, etc., have been found to be different from men’s (Furnham, 2012; Bender et al, 2005), there have been few studies that connect glass ceiling beliefs to job satisfaction.

Although there is now increased participation of women in workforce, their underrepresentation in higher posts is a disturbing fact for social sciences and women’s studies (Eagly and Carli, 2007; Powell and Graves, 2003). Given that abrupt changes in business environment – both internal and external – determine the importance of work engagement for an employee (Akkermans et al., 2015; Derks et al., 2015; Shimazu et al., 2015; Timms et al., 2015) and job satisfaction has become an essential consideration for organisations (Pacheco and Webber, 2016), a study of women’s views on such aspects would provide more insights into the areas that need to be reformed for their empowerment and to shatter the glass ceiling.
The purpose of this study is to analyse the glass ceiling from a psychological viewpoint, i.e., glass ceiling beliefs and important career aspects – work engagement and job satisfaction. To fulfil this purpose, cross sectional data have been collected from women employees in the banking sector in India. India is passing through a demographic transition, with a bulge in the working age group, which may encourage more women to enter the workforce because of the decline in family size (Kumar, 2014). Moreover, India is a rapidly developing country and different institutions are working for the greater empowerment of women (Mishra et al., 2015). The service sector contributes almost half of female employment participation all over the world, of which banking provides more opportunities for women, since it values more feminine attributes such as team work, caring, serving and communication (Bezbaruah, 2015). Data were collected from different public, private and foreign banks across the country.

In this work, we aim to show the direct and indirect relationships between glass ceiling beliefs and job satisfaction through work engagement. Towards this goal, the present study investigates:

a. the role of glass ceiling beliefs on work engagement
b. the direct role of glass ceiling beliefs on job satisfaction
c. the role of work engagement on job satisfaction
d. the mediating role of work engagement on job satisfaction.

2 Theoretical background and hypotheses

2.1 Glass ceiling beliefs

The glass ceiling is an invisible and artificial barrier that impedes women from advancing to higher positions (Bell et al., 2002; Stroh et al., 1996). Theories such as person centred theory, situational theories, interaction centred theory, human capital theory, social role theory, and preference theory have attempted to explain the glass ceiling in terms of the differences between the two gender groups in decision-making for a common cause (Enid Kiaye and Maniraj Singh, 2013; Terjesen and Singh, 2008; Hakim, 2006). Among these, the person centred theory deals with the role of skills, traits and behaviour of women employees in breaking the glass ceiling (April et al., 2007). Situational theories focus on the work environment of women employees who aspire to be in higher management positions. Social roles and social stereotypes that impede women’s career growth are the focus of social role theory (Enid Kiaye and Maniraj Singh, 2013). Interaction centred theory deals with the self-imposed inaccessibility issues of women employees, which create barriers for their career advancement. The human capital theory studies the representation of women in management in terms of the free choices they make and the decisions they make to invest in education and training or not. Women tend to place a higher value on family responsibilities, which is different from the attitudes of their male counterparts (Enid Kiaye and Maniraj Singh, 2013). According to the social role theory, social roles and social stereotypes inhibit the career progress of women, since the glass ceiling originated in a gendered social system where work was designed by men for men and the patriarchy defined work roles by gender, leading to gender discrimination and stereotyping (Terjesen and Singh, 2008). Preference theory explains women’s balance
between corporate work and family-work. It is a historically informed, prospective, and multidisciplinary theory. Life style preferences are the causal factors in modern societies and thus need to be monitored (Hakim, 2006). Recent studies of the glass ceiling are starting to explore a more in-depth understanding and analysis of the glass ceiling compared to previous studies in this area. The varied but specific and in-depth analyses in this area discuss the roles of the young age of women entering the work place, their income inequality and political ideologies, etc., in the continuation or breaking of the glass ceiling (Newman, 2015; Gander, 2014).

If a man and a woman differ in their response to a particular identical input, it is due, somewhat, to different psychological mechanisms (Buss, 1995). Considering such factors, Smith et al. (2012b) extensively studied women’s beliefs about the glass ceiling by developing the career path survey (CPS). Glass ceiling beliefs describe the four groups of beliefs about the glass ceiling: denial, resilience, resignation, and acceptance. The belief ‘denial’ deals with the view that men and women face the same issues and problems in seeking leadership. ‘Resilience’ refers to the capability of women to break the glass ceiling. ‘Resignation’ implies that women suffer more negative consequences than men in their career paths to higher levels, which leads to overwhelming reasons for them to not even attempt to break the glass ceiling. Finally, ‘acceptance’ refers to women’s preferences for non-professional goals, such as family involvement, over career development (Smith et al., 2012a). Among the glass ceiling beliefs, resilience and denial are optimistic, and resignation and acceptance are pessimistic in nature (Smith et al., 2012a).

2.2 Work engagement

Work engagement is a positive, fulfilling, affective-motivational state of work-related wellbeing, which is characterised by vigour, dedication, and absorption (Bakker and Leiter, 2010; Schaufeli et al., 2006). Vigour, dedication and absorption represent energy, motivational and resource allocation factors in work engagement (Demerouti et al., 2015). According to Bakker and Leiter (2010), “vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulties. Dedication refers to being strongly involved in one’s work, and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work”.

Recent research efforts have shown considerable interest in understanding work engagement for many reasons. First, rapidly changing working conditions, such as global competition and highly paced innovation, stimulate employees to invest their effort and time more heavily than before (Shimazu et al., 2015). Secondly, the introduction of new communication technologies has an impact on the work life of employees (Derks et al., 2015). Thirdly, new career aspects, such as flexible work arrangements and working from home, pave ways to new dimensions of careers (Timms et al., 2015). Lastly, unpredictable and uncertain changes in the labour market force employees to take greater responsibility for maintaining their career (Akkermans et al., 2015).

It can be seen from many research reports in this area that work engagement plays both determinant and consequent roles. Work engagement has also been reported to
predict many aspects of management and organisational behaviour, such as future well-being, performance (Shimazu et al., 2015; Bakker and Demerouti, 2008), job satisfaction (Hoigard et al., 2012; Giallonardo et al., 2010), organisational commitment (Simons and Buitendach, 2013) and creativity (Demerouti et al., 2015). Work engagement acts as a consequent for personality, emotional intelligence (Akhtar et al., 2015), leadership behaviour (Nelson and Shraim, 2014), job demands, job resources, personal resources (Bakker and Demerouti, 2008), etc. Work engagement is also considered a potential moderator in studies that are aimed at understanding smart phone use and work-home interference (Derks et al., 2015). Its role as a potential mediator studied among the relationships of employee attitude and outcomes (Yalabik et al., 2013), high performance work practices and employee performance (Karatepe, 2013), job and personal resources and work ability (Airila et al., 2014), and leadership and performance (Kovjanic et al., 2013). All these previous studies used work engagement as a potential construct for research.

2.3 Job satisfaction

Job satisfaction is the pleasurable emotional state that results from achieving or facilitating the achievement of one’s job values (Locke, 1969). Job satisfaction refers to how an employee feels about his or her job (Autry and Daugherty, 2003) or perception of the fulfilment derived from work activities (Klassen and Chiu, 2010).

Many theoretical approaches such as affect theory, equity theory, two factor theories, the task characteristic approach, social information processing theory, the dispositional approach, and the integrated or combined approach, explain job satisfaction. Affect theory posits that how much one values a given facet of work moderates how satisfied or dissatisfied one becomes when expectations are met or not (Locke, 1976). Equity theory explains how one views fairness in regard to social relationships such as with superiors, or colleagues (Adam, 1963). Herzberg’s (1966) two factor theory states that satisfaction and dissatisfaction are driven by different factors: hygiene factors and motivating factors. The task characteristic approach proposes that the task characteristics are related to employee attitudes and are described by perceived core dimensions of autonomy, feedback from the job, job variety, task identity, and task significance (Hackman and Oldham, 1975). The social information processing approach rests on the basic idea that job attitudes are determined by social cues processed from the work environment (Salancik and Pfeffer, 1978). The dispositional approach proposes that an individual possesses relatively stable unobservable mental states, such as needs or attitudes, which impact their views and behaviour (Staw and Ross, 1985). A combined task characteristics model and social information processing model by Griffin et al. (1987) proposed that job enrichment and social cues combine to influence perceptions and attitudes. Based on these theories, it is seen that the characteristics of predictors of job satisfaction are very rich, and include role ambiguity, role conflict, motivation, need for achievement, initiating structure, salary, security, relationships, leadership, tasks, working conditions, feedback, job variety, burn out, socialisation and autonomy (Tomaževič et al., 2014; Baker, 2011; Yang, 2010; Igbaria and Guimaraes, 1993).

Job satisfaction has been a part of well-known theories in management such as the two factor theory (Herzberg, 1966), equity theory (Adam, 1963) and social influence theory (Salancik and Pfeffer, 1978). Recent work in this area has shown that job satisfaction is related to both positive outcomes (Hülsheger et al., 2013; Ziegler et al.,...
Linking women's glass ceiling beliefs and employee satisfaction

2012) and negative outcomes (Purpora and Blegen, 2015; Card et al., 2012). The positive outcomes include organisational commitment (Yang, 2010) and performance (Ziegler et al., 2012). The negative outcomes include turnover intention, absenteeism, and horizontal violence (Purpora and Blegen, 2015; Baker, 2011; Yang, 2010; Igbaria and Guimaraes, 1993).

2.4 Hypotheses

2.4.1 Glass ceiling beliefs and their relationship with work engagement

Being optimistic beliefs, denial and resilience show a significant positive relationship with work engagement (Smith et al., 2012a). Denial of the existence of a glass ceiling reduces tension in women (Wrigley, 2002) and, indirectly or unknowingly, makes them optimistic. With respect to resilience, the day to day level of resilience can be positively related to the work engagement through greater vigour (Bakker and Leiter, 2010). These beliefs allow women to be optimistic, expect good things to happen to them (Carver and Scheier, 2002), and experience high levels of work engagement (Bakker and Demerouti, 2008). Optimism is known to be associated with physical and psychological states of wellbeing whereas pessimism provides negative outcomes (Scheier et al., 2001).

Men find it easier to rise in their career than women, despite equal education, qualifications and skills (Eagly and Carli, 2007). Such career barriers not only affect career development (Lent et al., 2000), but also negatively affect career decision and self-efficacy (Wright et al., 2014). The glass ceiling belief resignation prevents women from breaking the glass ceiling because of the perception of insurmountable career barriers along their journey to higher posts. This in turn shows a negative side of self-efficacy in her career. Since self-efficacy acts as a self-motivating mechanism and causes employees to set goals and expend greater effort, it is positively related to work engagement (Simbula et al., 2011). One of the major hindrances of a woman’s career progress is family responsibilities, including child care and family-work conflict (Enid Kiaye and Maniraj Singh, 2013; Hakim, 2006). Despite improved economic freedom, women are still highlighted as homemakers who are supposed to nurture their family members’ health (Cockburn-Wootten et al., 2008). Opie and Henn (2013) found that, among working women, work-family conflict is negatively related to work engagement. Smith et al. (2012a) found that acceptance shows a negative relationship with work engagement. Based on the above rationale, we framed the following hypotheses:

H1 Denial is positively related to work engagement.
H2 Resilience is positively related to work engagement.
H3 Resignation is negatively related to work engagement.
H4 Acceptance is negatively related to work engagement.

2.4.2 Relationship between work engagement and job satisfaction

Bakker et al. (2007) found that job resources were positively related to work engagement. Most of the determinants of job satisfaction, such as autonomy, and feedback, come under the category of job resources. Additionally, various studies in different areas of research have found work engagement to be positively related to job satisfaction. A study
among teachers by Æggaard et al. (2012) and a study among nurses by Giallonardo et al. (2010) showed a positive relationship among work engagement and job satisfaction, and both included women as the majority of respondents. Based on these studies, we formulated the hypothesis:

H5 Work engagement is positively related to job satisfaction.

2.4.3 Glass ceiling beliefs and their relationship with job satisfaction

Despite women’s acknowledged disadvantages with regard to autonomy, pay, and promotion opportunities, their job satisfaction is not lower than that of men (Furnham, 2012; Bender et al., 2005). The reasons for this have been explored. First, the expectations of women are lower than those of men, because they compare themselves with specific cohort career groups, such as other women, not men. Secondly, women are not as inclined as men to express discontent or rage in an open society. Third, men and women value different aspects of the job; women value intrinsic aspects such as relationships in the organisation, and work conditions, whereas men value extrinsic aspects such as salary prospects, career growth, and company prestige.

In order to improve organisational performance, recent studies have begun to focus more on positive organisational concepts (Cameron and Dutton, 2003; Seligman and Csikszentmihalyi, 2014). Denial and resilience are considered optimistic constructs in glass ceiling beliefs. Optimism and resilience, which are parts of the psychological capital, show strong positive relationships with job satisfaction (Jung and Yoon, 2015; Kwok et al., 2015; Bakker and Demerouti, 2008; Youssef and Luthans, 2007; Matos et al., 2010). Moreover, Smith et al. (2012a) showed that denial is positively related to job satisfaction.

Women face more family-work conflicts than men, which in turn act as barrier for career development (Enid Kiaye and Maniraj Singh, 2013, Hakim, 2006). Researchers have shown that family-work conflict is negatively related to job satisfaction (Buonocore and Russo, 2013; Masuda et al., 2012). Smith et al. (2012a) showed the negative impact of resignation on job satisfaction. However, little is known about the relationship between acceptance and job satisfaction, although there is evidence that optimism has strong positive effects on job satisfaction. Based on this rationale, we formulated the following hypotheses:

H6 Denial is positively related to job satisfaction.
H7 Resilience is positively related to job satisfaction.
H8 Resignation is negatively related to job satisfaction.
H9 Acceptance is negatively related to job satisfaction.

2.4.4 The mediating role of work engagement

Work engagement mediates among job aspects and behavioural outcomes and provides significant outcomes (Sulea et al., 2012; Salanova and Schaufeli, 2008). Yalabik et al. (2013) found that work engagement mediates the relationship between employee attitudes and outcomes, including job satisfaction. Therefore, we formulated a hypothesis as:
H10 Work engagement mediates the relationship between glass ceiling beliefs and job satisfaction.

2.5 The present study

Our aim is to contribute to the understanding of the relationship between glass ceiling beliefs and job satisfaction, with work engagement as a mediator. While previous studies have provided empirical support for many specific links that are included in our hypothesised model (see Figure 1), none of the previous studies has attempted to integrate these variables into a comprehensive model. Using a structural equation modelling (SEM) approach, we tested the research model shown Figure 1, including H1–H10.

![Figure 1](image)

**Notes:** The full mediation model is represented by solid lines. H10 is about mediation of work engagement thus combines H1, H2, H3, H4 and H5.

3 Method

3.1 Sample and procedure

In this work, a survey was performed among a sample (n = 420) of women working in the banking sector in Indian states. The mean age of these women was 36.66 (SD = 8.63).
Other demographics measured in the study included civil status, age group and experience. Table 1 provides the summary of the study sample’s characteristics.

In this sample, 27.1% (n = 114) belonged to the age group of 20–29, 38.6% (n = 162) belonged to the age group of 30–39, 27.1% (n=114) of the respondents were from the age group of 40–49, and 7.1% (n = 30) were over 50. In terms of civil status, 46.9% (n = 197) were married, 47.6% (n = 200) were unmarried, and the remaining 5.5% (n = 23) belonged to other categories, including widowed, divorced, live-in relationship. 50.5% (n = 212) of respondents had up to ten years of experience, 46.7% (n = 196) had 11–20 years of experience and 2.9% (n = 12) had over 20 years of work experience.

Table 1  Sample characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Descriptor</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td>20–29</td>
<td>114</td>
<td>27.10</td>
<td>27.10</td>
</tr>
<tr>
<td></td>
<td>30–39</td>
<td>162</td>
<td>38.60</td>
<td>65.70</td>
</tr>
<tr>
<td></td>
<td>40–49</td>
<td>114</td>
<td>27.10</td>
<td>92.80</td>
</tr>
<tr>
<td></td>
<td>50 and above</td>
<td>30</td>
<td>7.10</td>
<td>100</td>
</tr>
<tr>
<td>Civil status</td>
<td>Unmarried</td>
<td>200</td>
<td>47.60</td>
<td>47.60</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>197</td>
<td>46.90</td>
<td>94.50</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>23</td>
<td>5.50</td>
<td>100</td>
</tr>
<tr>
<td>Experience in years</td>
<td>Up to 10</td>
<td>212</td>
<td>50.50</td>
<td>50.50</td>
</tr>
<tr>
<td></td>
<td>11–20</td>
<td>196</td>
<td>46.70</td>
<td>97.20</td>
</tr>
<tr>
<td></td>
<td>Above 20</td>
<td>12</td>
<td>2.90</td>
<td>100</td>
</tr>
</tbody>
</table>

3.2 Measures

Glass ceiling beliefs. Glass ceiling beliefs were measured using the CPS (Smith et al., 2012b). The CPS assesses levels of denial (10 items), resilience (11 items), resignation (10 items) and acceptance (7 items) in glass ceiling beliefs. A seven-point Likert scale was used with anchors 1 (strongly disagree) to 7 (strongly agree). Seven items were reverse scored.

Sample items were “Women and men have to overcome the same problems at the workplace” (denial), “Women have strength to overcome discrimination” (resilience), “Women believe they have to make too many compromises to gain highly paid positions” (resignation), “Motherhood is more important to most women than career development” (acceptance).

Work engagement. The nine-item version of the Utrecht Work Engagement Scale (UWES-9) (UWES; Schaufeli et al., 2006) was used in this study. It measures three closely related workplace engagement factors: vigour, dedication and absorption. All items were rated on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items were: “At my work, I feel bursting with energy” (vigor), “I am enthusiastic about my job” (dedication) and “Time flies when I’m working” (absorption).
3.2.1 Job satisfaction

Four items from the measure developed by Autry and Daugherty (2003) were used to measure job satisfaction. Representative items included “I feel fairly satisfied with my present job”. All items were rated on a scale ranging from 1 (strongly disagree) to 7 (strongly agree).

3.3 Data analysis

The researchers used SEM methods, implemented in AMOS 21.0 (Arbuckle, 2012), to test the research model. SEM provides the techniques for estimating multiple interrelated dependent relationships in the research model (Hair et al., 2009). Confirmatory factor analysis was performed with maximum likelihood estimation, to examine the model’s accuracy. The models’ goodness of fit was evaluated using χ² test static, the relative chi-square (χ²/df), the root-mean-square error of approximation (RMSEA), standardised root mean square residual (SRMR), the comparative fit index (CFI), and Tucker-Lewis index (TLI). Values larger than 0.90 for CFI and TLI, lower than 3 for χ²/df and 0.08 or lower for RMSEA indicated an acceptable fit with the model (Byrne, 2013; Hu and Bentler, 1998). For RMSEA, values of 0.05 or less indicate the close fit of the model and values greater than 0.10 lead to model rejection (Browne and Cudeck, 1993).

4 Results

4.1 Descriptive statistics

Table 2 shows the mean values, standard deviations, internal consistency, and correlations among the study variables. All the constructs had satisfactory internal consistency showing values greater than 0.70 (Nunnally et al., 1967).

Table 2 Means, standard deviations and intercorrelations (N = 420)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denial</td>
<td>4.79</td>
<td>1.28</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>4.98</td>
<td>1.22</td>
<td>0.34***</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resignation</td>
<td>2.97</td>
<td>1.14</td>
<td>–0.15**</td>
<td>–0.37***</td>
<td>0.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptance</td>
<td>3.56</td>
<td>1.32</td>
<td>–0.29***</td>
<td>–0.29***</td>
<td>0.47***</td>
<td>0.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work engagement</td>
<td>4.48</td>
<td>1.37</td>
<td>0.34***</td>
<td>0.53***</td>
<td>–0.71***</td>
<td>–0.62***</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>4.92</td>
<td>1.23</td>
<td>0.25***</td>
<td>0.25***</td>
<td>–0.34***</td>
<td>–0.3***</td>
<td>0.51***</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Notes: **p < 0.01, ***p < 0.001. Cronbach’s α on diagonal.

4.2 Confirmatory factor analysis

SEM methods (Arbuckle, 2012) were implemented to run confirmatory factor analyses. First, the first order constructs for the study were assessed. This model fits the data,
χ²(425, N = 420) = 1615.10, χ²/df = 3.80, p < 0.01, CFI = 0.85, TLI = 0.84, RMSEA = 0.08 and SRMR = 0.07. Secondly, we tested the correlated three-factor model of work engagement. The model fitted the data and all indices met the respective criteria, χ²(24, N = 420) = 51.5, χ²/df = 2.14, p < 0.01, CFI = 0.99, TLI = 0.99, RMSEA = 0.05 and SRMR = 0.03.

4.3 Testing hypotheses: the research model

When a mediational model involves latent constructs, SEM provides the basic data analysis strategy (Baron and Kenny, 1986; Judd and Kenny, 1981). In accordance with the four basic steps to establish mediation effects and to test hypotheses, we fitted our research model (M1) to the data. Following previous confirmatory factor analyses, work engagement was used as a latent variable with three indicators (dedication, vigour and absorption). The other latent variables in our model were measured with single indicators – glass ceiling beliefs (denial, resilience, resignation, and acceptance) and job satisfaction. First, the model (M1) was fitted with the first order constructs glass ceiling beliefs and job satisfaction. Next, the mediator variable – work engagement – was added to the research model M1 and the model (M2) was fitted with the data. For a better fit, the model was modified and the model (M3) was made to fit data using modification indices (see Table 3). Although the model fitted the data, with all fit indices meeting the criteria, the relationships between glass ceiling beliefs and job satisfaction were not statistically significant after adding the mediator – work engagement. Thus the influence of glass ceiling beliefs on job satisfaction was fully mediated by work engagement. Hence, all four steps described by Baron and Kenny (1986) and Judd and Kenny (1981) were met.

Table 3  Test of research model

<table>
<thead>
<tr>
<th></th>
<th>χ²</th>
<th>df</th>
<th>χ²/df</th>
<th>p</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>822.31</td>
<td>424</td>
<td>1.93</td>
<td>&lt; .01</td>
<td>0.95</td>
<td>0.95</td>
<td>0.05</td>
<td>0.04</td>
</tr>
<tr>
<td>M2</td>
<td>1,472.71</td>
<td>722</td>
<td>2.03</td>
<td>&lt; .01</td>
<td>0.94</td>
<td>0.93</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>M3</td>
<td>1,258.90</td>
<td>711</td>
<td>1.77</td>
<td>&lt; .01</td>
<td>0.95</td>
<td>0.95</td>
<td>0.04</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Notes: N = 420; χ²/df: relative chi-square; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardised root mean square residual.

The analysis results of the model are graphically shown in Figure 2. The results of the SEM show that all our hypotheses concerning glass ceiling beliefs and work engagement, as well as work engagement and job satisfaction were accepted. All glass ceiling beliefs showed a significant relationship with work engagement, with denial (β = 0.10, p < 0.05), resilience (β = 0.24, p < 0.001), resignation (β = −0.47, p < 0.001) and acceptance (β = −0.30, p < 0.001) and supported hypotheses H1 to H5. The hypotheses H6 to H9 showed an insignificant relationship after adding the mediating variable. This supported the H10 on mediation effects between the glass ceiling beliefs and job satisfaction. In summary, hypotheses H1 to H5 and H10 were supported by the data in the mediation model.
Figure 2  Research model with standardised path coefficients (N = 420)

Denial

Resilience

Resignation

Acceptance

Work Engagement

Job satisfaction

Notes: *p < 0.05, **p < 0.01, ***p < 0.001. Continuous lines indicate direct effects among glass ceiling beliefs and job satisfaction. Discontinuous lines indicate the mediating role of work engagement with non-significant (ns) relationships.

4.4  Direct and mediation effects

Glass ceiling beliefs (denial, resilience, resignation, and acceptance) and work engagement relate significantly and in the expected direction with job satisfaction. The direct effects presented in Figure 2 also support the hypotheses that stated relations between: denial, resilience, resignation, and acceptance with job satisfaction (0.33, 0.32, −0.47 and −0.27). Thus H6, H7, H8 and H9 were supported.

Furthermore, our model highlights the mediated effects played by work engagement in relation between glass ceiling beliefs and job satisfaction (as stated in H10). Overall, mediation effects were insignificant for the relationship between glass ceiling beliefs and job satisfaction. That is, the indirect effect of denial – via work engagement – explains only 10% of the total effect on job satisfaction. The other indirect effects of resilience, resignation and acceptance – via work engagement – explain 5%, 3% and 4% respectively of job satisfaction. Whereas, the direct effects of denial, resilience, resignation and acceptance explain 33%, 32%, 47%, and 27% respectively of the effect on job satisfaction. In sum, our hypothesis that assumed full mediation of work engagement (H10) was confirmed.
5 Discussion

The purpose of the reported research was to examine a model that includes glass ceiling beliefs, work engagement and job satisfaction. We developed a comprehensive model because of the perception of the importance of these three constructs in this scenario. We used women employees as the source of information. The current study used this model to examine how women’s glass ceiling beliefs are related to their job satisfaction through work engagement. More specifically, we predicted that women’s glass ceiling beliefs (denial, resilience, resignation, and acceptance) could predict job satisfaction through work engagement. In addition, we hypothesised that denial and resilience would be positively related to work engagement, and resignation and acceptance would be inversely related to work engagement. In line with the positive psychology approach (Seligman and Csikszentmihalyi, 2014; Bakker and Leiter, 2010), we extended the focus on work engagement to include glass ceiling beliefs and job satisfaction. In addition, this was the first study to test the mediating role of work engagement in glass ceiling beliefs and job satisfaction. Our main hypotheses were largely supported by the data and this study showed how work engagement (fully) mediates the relationship between glass ceiling beliefs and job satisfaction.

We extended previous research in this field into predictors and consequences of work engagement. First, the study reaffirmed glass ceiling beliefs as a potential predictor of work engagement. Smith et al. (2012a) found little support for the relationships among denial, resilience, acceptance and work engagement. This study showed strong support among these. Secondly, the study contributed to glass ceiling beliefs and job satisfaction in the direct model. As expected, work engagement positively related to job satisfaction, reaffirming previous studies in this area (Høigaard et al., 2012; Giallonardo et al., 2010). Finally, the study contributed to knowledge of the mediating role of glass ceiling beliefs and job satisfaction.

Although previous work examined the perception of glass ceiling beliefs as a predictor of job satisfaction (Smith et al, 2012a), in this work, we have included work engagement as a mediator linking them. Our findings show that women’s optimistic glass ceiling beliefs – denial and resilience – remove barriers, the women feel more engaged in work, which is, in turn, related to increased job satisfaction. We also found in this study that the pessimistic glass ceiling beliefs – resignation and acceptance – related negatively to work engagement and resulted in the women being less engaged in their work, thereby providing lower levels of job satisfaction.

6 Practical implications

The study confirms that work engagement has a strong impact on job satisfaction (Høigaard et al., 2012; Giallonardo et al., 2010). Changes in gender or attitude impact the relationship between work engagement and job satisfaction. This can be taken as an observation tool or primary test in order to find out the attitudes of employees. The relationship between glass ceiling beliefs and work engagement is new in the literature of both the glass ceiling and work engagement. With this, women’s views and their
engagement with their work can be recognised. Since glass ceiling beliefs predict job satisfaction through work engagement, it adds an entirely new dimension for women’s empowerment, work engagement, and job satisfaction research.

This study helps individuals understand their own attitude towards job satisfaction and glass ceiling beliefs, which might be hidden or unknown to them as in the Johari window (Luft and Ingham, 1961). This study may help individuals decide which beliefs they must hold on to, and which must be changed or eliminated in order to enhance engagement in work and job satisfaction. This study will be helpful to women job aspirants, so that they can choose an appropriate job according to their beliefs; for example, those who score high on acceptance beliefs could to choose work from home, or have flexi-time jobs and part time jobs and hence enhance work engagement and job satisfaction levels.

For an organisation, this study can be considered as a tool to check the glass ceiling beliefs of women that would help human resource management functions such as hiring, promotion, succession planning, training and counselling. This study can be used to understand the problems women face in their work which, in turn, can help in understanding their engagement with work, job satisfaction and attitude towards the glass ceiling.

The social implications of this work cannot be underestimated. Results from this study can be used to empower women, since it shows their attitudes towards job satisfaction and the glass ceiling. If women’s attitudes towards the glass ceiling can be generalised to geographic, ethnic, and professional domains, social reformers and policy makers can work in these areas to promote progress. Hence positive results can be studied and encouraged further and negative results can be suppressed through proper remedial measures and policies.

7 Limitations and future research direction

The present study has a few limitations. First, the research design was cross-sectional and hence the potential relationship among the constructs over a period of time is unpredictable, because beliefs and views may change with time. Longitudinal studies can be considered for better understanding. Secondly, self-reporting styles may be associated with problems of social desirability. However, the data were collected anonymously and study participants were assured of confidentiality. Future work may make use of a 360-degree approach to surveying – including supervisors, colleagues, subordinates and other stakeholders, or any of these stakeholders. Multiple views can be compared to avoid error. Thirdly, being a new area of research, there are a lot of limitations with respect to respondent groups, the work area, industry, and different career aspects considered in the study. Hence, future researchers are offered the large scope of studying different target groups, such as entrepreneurs, social workers, and employees of different organisations. Future work may also consider different industries that treat women differently, such as nursing, and underrepresented areas, such as defence. The current study considered only two important career aspects – work engagement and job satisfaction. Future work may take more career aspects into consideration in order to provide more insights in this area.
8 Conclusions

This study shows that glass ceiling beliefs predict job satisfaction though work engagement. The mediating role of work engagement for the prediction of job satisfaction from glass ceiling beliefs is described for the first time. Understanding and measuring these three constructs among women employees in an organisation will help them change their attitude for career progress, help organisations to develop and promote better practices, assist policy makers to frame better policies and encourage societies to progress further. This study also provides new routes to gender equality, female empowerment and individual social and economic progress, and thus paves the path to global competitiveness.

References


Linking women’s glass ceiling beliefs and employee satisfaction


Linking women’s glass ceiling beliefs and employee satisfaction


