Should I start my own venture? Moderating effect of pull factors on the relationship of push factors with women entrepreneurial intentions

ABSTRACT

Extant literature of women entrepreneurial intention (EI) has not studied the interplay of push and pull factors well, creating a lacuna in literature. In this paper, we explored how barriers within their professional careers, *i.e.*, push factors led to women EI, and how interpersonal motivators and contextual pull factors moderated that relationship. Adopting the push-pull framework and analyzing survey-based responses from 302 working women using structural-equation-modeling, we find that the need for recognition (NFR) and the glass ceiling (GC) effect have positive relationships, whereas family support (FS) has a negative relationship with EIs. Moreover, the NFR and FS moderate GC–EI relationship. Our study contributes towards the women entrepreneurship literature by focusing on the interplay of push and pull factors. The paper also provides important managerial and policy implications for organizations and policy makers.

Keywords: Entrepreneurial intention, Women entrepreneurship, Glass ceiling, Need for recognition, Family support, Push-Pull Framework, Gender study

INTRODUCTION

Failure in entrepreneurship has been an area of concern for the entrepreneurs, policy makers, and academicians for decades. Among various other reasons identified in extant literature, one reason that becomes prominent for the failure of an enterprise is the trigger of the entrepreneurial endeavor (Agarwal et al., 2020; Humbert and Roomi, 2018; Jafari-Sadeghi, 2020; McGowan et al., 2012). Entrepreneurships, which are triggered by the barriers of personal and professional lives but lack intrinsic drivers, frequently encounter higher failure rates (Hughes, 2006; Jafari-Sadeghi, 2020; McGowan et al., 2012; Rashid and Ratten, 2020;

Robertson et al., 2003). Entrepreneurial intention (EI) of women, *i.e.*, *"the conscious state of mind that precedes action and directs attention toward a goal such as starting a new business"* (Moriano et al., 2012), is especially relevant in this context. Although rising rapidly in the last decade (DeMartino, Barbato, and Jacques, 2006; Jafari-Sadeghi, 2020; Nikou et al., 2019), women-run entrepreneurships also face higher failure rate when compared to entrepreneurships by men (Hughes, 2006; Jafari-Sadeghi, 2020). Such failure is more often than not driven by systematic discrimination/barriers that women continue to face in their professional life (DeMartino, Barbato, and Jacques, 2006; Humbert and Roomi, 2018; Rashid and Ratten, 2020). This is also supported by the high dropout rates at the formal sectors for women professionals (Fouad et al., 2017; Virick, Basu, and Rogers, 2015), despite various retention-efforts of the organizations which understand the value of women in problem solving, talent pool diversity, and innovative solution building (Fouad et al., 2017; Maurer and Qureshi, 2019). Therefore, one may ask whether women professionals, who have higher intention of leaving jobs and joining entrepreneurship, are being pushed towards entrepreneurship or being pulled due to their internal drive? What are the relative influences of push and pull factors on women EI? How such relative influences vary depending on contextual and interpersonal factors? We try to answer these questions by selecting working women as the population and push-pull framework as the theoretical framework of our study while focusing on the drivers of EI.

A study on the drivers of entrepreneurial intention of women is important for several other reasons too. Firstly, women entrepreneurs are different than men entrepreneurs (DeMartino, Barbato, and Jacques, 2006; Filser et al., 2020; Jennings and Brush, 2013; Nikou et al., 2019)because men and women entrepreneurs have different objectives behind starting their businesses (Manolova et al., 2012; Nikou et al., 2019). Moreover, the barriers related to one's endowment of social capital are also different for men and women, as men are more

connected in instrumental networks than women (Cowling and Taylor, 2001; McGowan et al., 2015). Therefore drivers of entrepreneurial intention are also expected to be different across genders which demands further attention. Secondly, women entrepreneurs contribute significantly to innovations, job creation, and societal benefits (Agarwal et al., 2020; Batool and Kalim, 2017; de Bruin, Brush, and Welter, 2006; Nikou et al., 2019).Women-led start-ups are also key drivers of economic growth and development, thus playing a crucial role in the sustainability and poverty alleviation (Cuberes and Teignier, 2014; Rosca, Agarwal, and Brem, 2020). Therefore, special focus on women entrepreneurship is important for any economy. Thirdly, irrespective of the above mentioned benefits of women entrepreneurship, the level of participation of women in entrepreneurial activities is lesser than their male counterpart and their entrepreneurial activities varies across the globe (Bosma 2018; Bosma et al. 2020; Byrne, Fattoum, and Cristina Diaz Garcia 2019), indicating women continue to represent a largely untapped pool of entrepreneurial talent (Bosma, 2018; Bosma et al., 2020). Therefore it is crucial to study what drives the entrepreneurial intention (EI) in women.

In our study, we have used the push-pull framework on entrepreneurial intentions (Batool and Kalim, 2017; Dawson and Henley, 2012; Hughes, 2003; Özsungur, 2019; Rashid and Ratten, 2020; Santos, Marques, and Ferreira, 2018) and chosen the need for recognition as contextual pull factors and glass ceiling as contextual push factor leading to EI of women. Moreover, we have also chosen availability of family support, as a contextual factor, which influences women EI. We have applied structural equation modeling and econometric analyses methods on the survey-based responses collected from 302 working women. Moreover, we found that the relationship of the professional barriers with EI comes down in the presence of a very high intrinsic need towards personal and professional recognition, which suggests a unique psychological process having important implications for

policymakers. Our study may contribute to the literature on women's EI, which may subsequently help policymakers to take appropriate steps to encourage women's entrepreneurship and reduce failure rates of entrepreneurial endeavors.

The next section contains the literature review of women's EI and theoretical framework to explain the logic behind the proposed model. The remaining sections provide the methodology and findings, theoretical contributions, managerial implications, limitation, and scopes for further research.

LITERATURE REVIEW AND THEORETICAL DEVELOPMENT

Entrepreneurial Intentions and Women

Existing literature has recognized entrepreneurial intention as a key antecedent of venture creation (Bird, 1988; Santos, Roomi, and Liñán, 2016; Liñán and Fayolle, 2015; Nikou et al., 2019). Researchers suggested that entrepreneurship, like most behavior, is not spontaneous as it involves planning (Blair and Shaver, 2019; Fishbein and Ajzen, 1975; Virick, Basu, and Rogers, 2015). Hence, it is prudent to believe that entrepreneurial intention can be an intermediary step in creating a new venture. Researchers have explored women's EI, its drivers and its difference form men's EI, as discussed below. Feminist theory debates that extant academic investigations of entrepreneurial intentions so far have been carried out following a masculine standard of entrepreneurship (Bird and Brush, 2002; Santos, Roomi, and Liñán, 2016). Moreover, macro level and individual level studies have revealed a gender gap in entrepreneurial intentions, irrespective of the level of economic growth (Austin and Nauta, 2016; Santos, Roomi, and Liñán, 2016; Langowitz and Minniti, 2007; Mcgee et al., 2009; Minniti and Nardone, 2007). In addition, researchers have found that women perceive lesser opportunities, and they have a greater fear of failure than men (Santos, Roomi, and Liñán, 2016; Langowitz and Minniti, 2007; Minniti and Nardone, 2007; Nikou et al., 2019).

Although government agencies all over the world are taking different initiatives to encourage women to start and run their own businesses, still the number of women entrepreneurs is lagging behind their male counter-parts (Bosma, 2018; Bosma et al., 2020; McGowan et al., 2012). Thus, entrepreneurial intentions among women have remained an area of concern among policy makers, academicians, and entrepreneurs.

Scholars have explored the drivers of women EI in the last two decades (Budig, 2006; Chhabra, Raghunathan, and Rao, 2020; Neill, Metcalf, and York, 2015; Nikou et al., 2019). We divided these drivers into two major groups: internal and external. Internal characteristics of a person that affect EI are, for example, entrepreneurial self-efficacy, resilience, and attitude (Bandura, 1997; Bullough, Renko, and Myatt, 2014; Nikou et al., 2019). External factors of an individual that affect entrepreneurial intentions mainly consist of family, work-life balance, the glass ceiling, entrepreneurial training and development, and entrepreneurial experience (Budig, 2006; Bullough, Renko, and Myatt, 2014; Santos et al., 2017; Hieu and Sukanlaya, 2016; Kirkwood and Tootell, 2008; Mattis, 2004; Nikou et al., 2019; Özsungur, 2019).

Notably, the internal and external push and pull factors that interact with each other to create EIs have not been studied, creating a lacuna in the literature. Filling this gap is important as the relationships of the individual factors with EI may have different director or strength depending on the external factors, which is important both theoretically and managerially. The current study tries to bridge this gap in the literature.

Push-Pull Framework of Motivation

The drivers of human motivations are desire to obtain a specific result (pull) or to avoid a certain unwanted, uneasy situation (push). To originate an entrepreneurial venture, women and men must have: entrepreneurial characteristics, innovative-feasible ideas,

business-able plans, and strategies to implement these ideas successfully (McGowan et al., 2012; Özsungur, 2019).

Initially, the phrases "push" and "pull" were used concerning entrepreneurial motives by Shapero and Sokol (1982), Cooper and Dunkelberg (1986), and Feeser and Dugan (1989). In their research, Shapero and Sokol (1982) explained the differences between necessity-driven versus opportunity-based entrepreneurship. Contradicting the initial theory that focused only on the market “pull” factors, they claimed that entrepreneurs can be "pushed" to start their venture due to dissatisfaction, rising unemployment, and the absence of other opportunities, etc. More specifically, Shapero and Sokol (1982) claimed, "push" factors are applicable in the particular situation when members of minority groups try to start their venture. On the other hand, Brush (1990) developed a framework suggesting that a certain portion of minority entrepreneurs (like women) are motivated by both pull and push factors. Ducheneaut and Orhan (1997) proposed that in the case of women, pull factors are associated with independence, self-fulfillment, and whereas push factors are associated with family-related issues and time constraint, dissatisfaction with the current job (including glass ceiling effects), and income necessity (like - single parent or being the only wage-earner/ potential wage earner of the family). Researchers have also suggested that in comparison to men, women are more frequently pushed into entrepreneurship (Coleman and Robb, 2009; Santos, Marques, and Ferreira, 2018; Foley et al., 2018; Rashid and Ratten, 2020), making the above framework more important in the current context.

Push factors are generated by needs; thus, the drivers are, for instance, an insufficient family income, unemployment, and dissatisfaction with a salaried job due to being passed over for a promotion. In comparison to their male counterpart, more women are pushed to entrepreneurship as they have lesser flexibility than men due to being regulated by household responsibilities, discrimination in the job, and cultural reasons (Santos et al., 2017; Santos,

Marques, and Ferreira, 2018; Hughes, 2006; Jafari-Sadeghi, 2020). Pull factors relate to independence, self-fulfillment, social status, and power. Researchers have added value to the primary push-pull framework of entrepreneurship. Some researchers have used a gender comparative approach (Kirkwood, 2009), and others have attempted to assess the impact of push-pull motivation on the success of a venture per se (Hughes, 2006), and still, others have attempted to explore the relative importance of the push-pull factors on women's entrepreneurial career decision (Mattis, 2004; Özsungur, 2019). We explored the combined effect of these two types of antecedents of women's EI on the basis of the push-pull framework, which has remained as a gap in the extant literature. Furthermore, the differential impact of push-pull factors has not been resolved. Although a group of researchers have concluded that the push factor is predominant among women entrepreneurs, others have shown the pull factor is the major motivating factor (Santos, Marques, and Ferreira, 2018; Mattis, 2004; Özsungur, 2019; Rashid and Ratten, 2020), creating another gap in the research.

In this paper, we attempted to bridge the gaps by showing the direct and interacting effects of the pull-push or internal-external factors on women's EIs. We focused on how in the case of working women the barriers and enablers of women's job growth and their job situation can lead to EIs. Namely, we focused on how the GCs in their job conditions may lead to the EIs of working women, and how an individual characteristic such as the need for recognition and external variables such as availability of FS can interact in this model. Such exploration will help us answer if or how much of EI expressed by working women can be considered as a beneficial socio-economic outcome, as success of the enterprise more likely to appear when entrepreneurs are pulled towards entrepreneurship rather than pushed (McGowan et al., 2012; Rashid and Ratten, 2020; Robertson et al., 2003).

Glass Ceiling

The “glass ceiling” (GC) is a phrase coined by two Wall Street Journal reporters in 1986 to explain the unseen barrier that prevents women from being promoted to senior leadership roles (Mattis, 2004) . Apart from the glass ceiling, different terms have been used by research scholars while acknowledging challenges faced by women when they tried to climb the corporate ladder: glass cliff, sticky floor, glass wall, glass escalator, etc. (Santos, Marques, and Ferreira, 2018; Ryan and Haslam, 2005; Sabharwal, 2015; Foley, Kidder, and Powell, 2002; Özsungur, 2019). Both longitudinal and cross-sectional organizational studies have shown the existence of the glass ceiling, which further revealed that women are treated differently at work (Elacqua et al., 2009; Foley, Kidder, and Powell, 2002; Gupta et al., 2020). Moreover, researchers have also highlighted the prejudices held against women and cited reasons for the persistent gender gap (Eagly and Karau, 2002; Rashid and Ratten, 2020).

Unethical and immoral practices like gender discrimination inside the organization, gender stereotyping in workplace, and lack of advancement with their current roles lead to frustration and boredom in women (Cortina et al., 2013; Gupta, Batra, and Gupta, 2020; Patterson and Mavin, 2009; Rashid and Ratten, 2020). Barriers to career growth at different stages of career tend to lead these women to pursue alternate career paths in the same or other domains. Entrepreneurship is such an alternative career path (Patterson and Mavin, 2009) that has been demonstrated to provide women with the independence and motivation, which were sought out for a long time, thus encouraging them to work harder to obtain success (Cormier, 2007; Patterson and Mavin, 2009; Rashid and Ratten, 2020).Therefore entrepreneurship is often opted by women when they face GC (Cormier, 2007; Knörr, 2011; Mattis, 2004; Sharif, 2015), making GC a contextual push factor of women EI. On the other hand, GC may also make the women professionals realize the societal differences with respect to gender and expect hindrance in obtaining venture capital and other resources. This may reduce the EI and

lead to a negative GC-EI relationship. This conflicting argument leads to the requirement of further probing of the GC-EI relationship. We posit:

H1: The glass ceiling (GC) faced by women professionals will have a positive relationship with women's entrepreneurial intention (EI).

Need for Recognition

Recognition is defined as people's intention to have status, consent, and getting attention from one's family, friends, and other community members (Agarwal et al., 2020; Carter et al., 2003). The recognition has been found to be one of the key factors that lead to opening an enterprise, especially for women (Agarwal et al., 2020; Scheinberg and MacMillan, 1988). Often the financial requirements of the women professionals are fulfilled by their job, while the need for recognition is not fulfilled. This may be because-(a) women do not get leadership position in organizations and (b) women achievements are often underplayed and considered as a result of external attribution (Atwater, James, and David 2001; Cortina et al. 2013). On the other hand, entrepreneurship run by a woman may attract higher attention and thus higher recognition as women are underrepresented among entrepreneurs (Patterson and Mavin, 2009). The success of entrepreneurship is often attributed to the leadership which makes entrepreneurship attractive in terms of recognition (Fisher, Maritz, and Lobo, 2014). Therefore, women professionals with a high need for recognition may not be satisfied by the level of recognition obtained from the job and may want to open their own business. The above argument is supported by existing literature which suggests women are more likely than their male counterparts to start companies to gain recognition from others (Yang and del Carmen Triana, 2019). This makes NFR an individual level pull factor for women EI. Although, NFR-EI relationship can also be somewhat relevant for men, such a relationship is

more important from women as most women professionals do not get due recognition in the organization, which is not as much the case for men professionals (Cortina et al., 2013).

Thus we posit:

H2: The need for recognition (NFR) of women professionals will have a positive relationship with women's entrepreneurial intention (EI).

Family Support

Gender-role creates a perception of the appropriateness of behaviors and characteristics of genders in our society (Shinnar et al., 2018). Although traditional theories of entrepreneurship have overlooked work-family motivations, these factors appear to be especially crucial in discussions of women's entrepreneurship (Budig, 2006; Santos et al., 2017; Hieu and Sukanlaya, 2016; Kaciak and Welsh, 2020). Family responsibilities, especially childcare (Bass, 2015; Santos et al., 2017; Santos, Marques, and Ferreira, 2018), have traditionally demanded far more active participation from women than men in the family. In most cases, working women have to do 'double duty' in their everyday life. Other than childcare, household responsibilities such as eldercare are often allocated to women, and this phenomenon is an added difficulty in reconciling family demands with inflexible employment within the formal sector. When faced with a selection among family and career, women often are pushed to choose family over career (Bass, 2015; Ryan and Haslam, 2007). Hence, working women are in need of greater flexibility to manage their dual responsibilities and to improve their work-life balance (WLB) (Boeri, 2018; Budig, 2006; Santos et al., 2017; Kirkwood, 2009; Livingston, 2014; Patterson and Mavin, 2009). One way of providing such flexibility in job life is by ensuring family support. Women who received the requisite support from their family to keep on performing in their job life will not be pushed towards adopting alternative career options such as entrepreneurship. Thus with high FS, working

women want to continue their job and do not want to switch to entrepreneurship. However, in lower FS, women's entrepreneurship can be considered a means of providing flexibility in work schedules, which might not be available in traditional wage/salary employment (Boeri, 2018; Budig, 2006; Humbert and Roomi, 2018; Patterson and Mavin, 2009). Therefore lower FS may push working women to entrepreneurship in order to ensure WLB and greater flexibility. Therefore, we proposed:

H3: Availability of family support (FS) to women professionals will have a negative relationship with women's entrepreneurial intention (EI).

Moderating effects on the GC-EI relationship

Effect of the NFR on the GC–EI Relationship

Women professionals who face high GC and have high NFR can be examples of individuals with defensive self-esteem, *i.e.*, people with high self-esteem but also with high need for external approval (Agarwal et al., 2020; Borton et al., 2012; Lambird and Mann, 2006). Women who face high GC are often belong from higher position in the corporate ladder (Cotter et al., 2001; Özsungur, 2019; Rashid and Ratten, 2020) and hence have higher self-esteem. If such women professionals have high need for recognition/external approval they can become examples of individuals with defensive self-esteem. Extant literature suggests that individuals with defensive self-esteem cannot follow regulatory actions when their ego is threatened (Lambird and Mann, 2006). Such people will also downplay the threat from the environment (Borton et al., 2012). We extend these findings in the context of women EI.

In line with the behavior of individuals with defensive self-esteem, women with high GC and high NFR may not opt entrepreneurship if faced hindrances in career that threatens their ego. They might keep on trying to break the glass-ceiling even though they are facing higher hindrances in their existing job. Such failure in regulating their career choice and

downplaying the threat to their career from GC is a classic behavioral response of individuals with defensive self-esteem. Moreover, such efforts to break the glass-ceiling become more prevalent when role models become more salient and social interactions with mentors and empathetic community increase, which is the case in the current times (Baumgartner and Schneider, 2010; Liu, 2013). Thus, we can suggest that the relationship strength between NFR and EI may drop in the presence of GC.

In addition to above, if women having high NFR or need for external approval face GC, the social stereotypes become more salient to them. Such women will feel higher perceived probability of failure in alternative career options such as entrepreneurship, as often social stereotypes also do not encourage women entrepreneurship. This will also create a weaker GC-EI relationship when NFR or need for external approval is high.

H4: Need for recognition moderates the relationship between glass-celling and entrepreneurial intentions for women professionals. For women professionals with higher (in compared to lower) need for recognition, the relationship between glass-ceiling and entrepreneurial intentions are weaker.

Effect of the FS on the GC–EI Relationship

Earlier we have mentioned that the availability of family support (FS) while working reduces women professional's EI, however perceived GC increases the EI of women professionals. However the GC-EI relationship strength also varies depending on the self-efficacy of the women, which is defined by the perception of the women about their ability to be successful in entrepreneurial endeavors. As the self-efficacy of women improves with the level of availability of FS, such FS will also influence the GC-EI relationship strength. The moral support provided by the family members can also encourage women to choose a career option which is best for her (Eddleston and Powell, 2012; Kaciak and Welsh, 2020). In the context

of GC, entrepreneurship can become such a career option. It has been observed that for women entrepreneurs, family support is crucial for venture creation and business success (Collins-Dodd, Gordon, and Smart, 2004; Jennings and Brush, 2013; Kaciak and Welsh, 2020; Shelton, 2006; Singh, Reynolds, and Muhammad, 2001). This support can be either instrumental and/or emotional (French et al., 2018; Kaciak and Welsh, 2020). In some cases, we have observed that to begin and expand their enterprise, women entrepreneurs require either direct financial assistance from family or indirect help in getting external financial support (Collins-Dodd, Gordon, and Smart, 2004; Jennings and Brush, 2013; Kaciak and Welsh, 2020; Shelton, 2006; Singh, Reynolds, and Muhammad, 2001). So when the GC in the organization makes the professional life of women difficult leading them to explore entrepreneurship as a career option, support received from the family makes such career transitions easier (Baumgartner and Schneider, 2010; Chrisman et al., 2003; Kaciak and Welsh, 2020; Zaefarian, Eng, and Tasavori, 2016). This argument suggests that inpresence of the FS, the GC-EI relationship will get stronger. Thus, we posit:

H5: Availability of family-support moderates the relationship between glass-celling and entrepreneurial intentions for women professionals, in such a way that this relationship is stronger when availability of family-support is higher (compared to lower).

Figure 1 summarizes the theoretical framework of this study.

<Figure 1 Here>

EMPIRICAL STUDY

Methodology

We used an online survey as the data collection method, which has been common in entrepreneurship research (Ghatak, Chatterjee, and Bhowmick, 2020). Although the survey has limitations and biases, such as the common method bias and non-response bias, the

method was convenient and provided control. Additionally, we checked for biases related to the online survey, and found they were non-existent; subsequently, we analyzed the data collected for model validation.

Sample

We attempted to measure the intention of women who were employed in the corporate sector. We excluded students from the sample set. To obtain meaningful data from the relevant individuals, we connected with working women through social media platforms (LinkedIn and Facebook) who were associated with groups/forums related to working women or women's entrepreneurship. This method helped access women professionals with various demographic characteristics. Moreover, the women had access to information related to entrepreneurship and gained exposure to almost similar sets of role models through the content posted in their groups. We approached these women personally by sending them a questionnaire to measure their EI. We sent the survey to 570 women professionals and 315 replied; thus, we secured a 55.26 percent response rate. After removing data with missing values or erroneous entries, 302 usable responses were found.

Out of the 302 usable responses received (refer Table 1), the majority of the women (85.25percent) belonged to the 25-50 age bracket, 44.04 percent were mothers, and 61.25 percent were married. In terms of motivation, 41 percent stated that independence was their primary motivation for their career choice, followed by equality (22 percent) and the need for recognition (20 percent). Of the 133 working-mother participants, 63.90 percent were living in a joint-family setup, 15.03 percent were living with a spouse/partner, 11.27 percent were living with family but without their partner, 8.27 percent were living alone, and 1.5 percent resided with only their children.

<Table 1 here>

Procedure

The women were asked if they had ever considered entrepreneurship as a career option, and 315 out of 570 respondents responded in the affirmative. These women were asked to write about their career choices and contexts that led them to entrepreneurial decisions. The verbatim text mentioned in the questionnaire is as follows: "Please write about the various career choices you have considered and the context of such choice." This task was provided to filter the respondents based on their career choice. Next, the respondents were asked to rate how much they agree with a set of statements related to latent constructs used in the aforementioned theoretical model discussed.

Measures

The latent variables discussed in the theoretical framework were measured using a set of statements (Table 2), whereby the respondents had to mark their level of agreement based on a 7-point Likert scale (1 = *strongly disagree* and 7= *strongly agree*). We used a 7-point Likert scale rather than a 3- or 4-point scale to obtain better reliability and validity (Cummins and Gullone, 2000) because further increases in scales do not increase the reliability and validity (Chatterjee, 2018). Furthermore, a 7-point scale reduces skewness and assures normality more than a 3-or 5-point scale, and other statistical details such as mean, standard deviation, and Cronbach's alpha or factor loadings, item-item correlations, item-total correlations, and so forth remain intact (Leung, 2011; Chatterjee, 2018). Therefore, a 7-point scale was the best choice for our study.

Exploratory Analysis

From the exploratory analysis of our data, we found that 80.79 percent of the women indicated independence as their primary motivating factor; followed by equality (43.04 percent) and the need for recognition (NFR) (39.73 percent). This finding suggests that pull

factors have more influence on women joining the workforce. Furthermore, although 61.25 percent of the respondents had been married and 44.03 percent were mothers, our study (contrary to previous studies) found a clear indication of FS.

Measurement Model

We used confirmatory factor analysis to assess the validity of the measures by using R software. The measurement model had CFI (0.973), GFI (0.923), and TLI (0.967), and RMSEA (0.040) was lower than 0.08, suggesting moderate fitness (Hu and Bentler, 1999). We also found that the chi-sq/df score was (Chi-sq = 176.299, df = 118, p=0.00), which was lower than 2, indicating a reasonable model fitness (Hu and Bentler, 1999).

Convergent validity was ensured by having factor loadings of individual items or statements in the measures higher than 0.6, which was the case in our study (Table 2). Moreover, the average variance measured (AVE) scores (Table 3) were also more than 0.5, ensuring convergent validity (Hair et al. , 2010).

Measures have discriminant validity when maximum-shared variance (MSV) is lower than AVE, and when the inter-construct correlations are smaller than the square root of AVE (Hair et al., 2010). The results of our study ensured both of these, confirming discriminant validity. Table 2 presents the details of the aforementioned results.

We used Cronbach's α to check reliability. The values of Cronbach's α were more than 0.8 for all the measuring scales used in our study. (refer to Table 2) (Hair et al., 2010).

<Table 2 here>

<Table 3 here>

Structural Model

The model has excellent goodness of fit (Chi-sq/df= 1.494 , RMSEA= 0.040, CFI= 0.973, GFI= 0.923, TLI=0.967), suggesting that we can rely on the results (Table 4). Based on the results obtained from SEM, we concluded that the need for recognition (NFR) (β=0.376, p<0.001) and the GC (β=0.204, p = 0.00) had a significant positive relationship with their EI, supporting H1 and H2. Additionally, the availability of FS (β=-0.153, p=0.00) while employed had a negative relationship with women's EI, supporting H3.

Moderation Effects

To further check the moderating effect, we performed SEM analysis: We have taken age, education, current location, and motherhood as covariates which were not significant. Model 1 indicates that the GC (β=0.204, p=0.00) and the need for recognition (NFR) (β=0.376, p=0.00) had positive relationships with EI, supporting H1 and H2. We also found FS (β =-0.153, p<0.001) had a negative relationship with EI, supporting H3. As per Model 2, the moderation effect of the NFR on the GC–EI relationship was negative (β=-0.224, p<0.001) and significant, supporting H4. However, the impact of the FS on the GC–EI relationship was positive (β=0.067, p<0.01) and significant, supporting H5. The R^2 value improved after including the interaction terms, suggesting a strong presence of moderating effects.

<Table 4 Here>

Robustness check using multi-group analysis

We have used multi group analysis for testing if pre-defined data groups have significant differences in their group-specific parameter estimates. In this study, we have done two multi-group analyses based on motherhood and age as reported in Table 5 and Table 6. For age, we have done a median split of the sample based on age and then have separately analyzed for the two groups.

< Table 5 Here>

< Table 6 Here>

We found that the GC-EI relationship is stronger for mothers and high-age women. This group of working women is expected to face glass ceiling higher as working women face more hurdles when they try to climb the corporate ladder (Arfken, Bellar, and Helms, 2004; Bell, McLaughlin, and Sequeira, 2002; Brieger et al., 2019; Cortina et al., 2013; Ryan and Haslam, 2005; Sabharwal, 2015 ; Foley, Kidder, and Powell, 2002). Likewise, the moderating effect of NFR on the GC-EI relationship is observed to be stronger for high-age women. This indicates that women of high age and with high NFR are more prone to opt for breaking the glass-ceiling attitude than going for entrepreneurship. While doing multi-group analyses, we found the moderating effect of FS on the GC-EI relationship is stronger for women who are older and are mothers. This may be due to the fact that such group of women will require higher FS to take up an entrepreneurial endeavor. Overall, the multi-group study supports the results of the overall analysis.

DISCUSSION

General Discussion

We found that the NFR, FS, and the GC have a significant relationship with the EI of working women. Furthermore, if women professionals receive families' equal participation in household chores or can outsource it, then that doesn't create a hindrance in their job leading them to continue with their existing job. This justifies the finding that family support (FS) has a negative relationship with EI. The GC, by contrast, is a barrier to women's career growth and prevents women from rising to the highest positions in an organization irrespective of their qualifications and achievements (Mattis, 2004; Özsungur, 2019). Due to the GC, women do not receive their deserved recognition or opportunities, which leads to frustration and

boredom among professionals pushed toward entrepreneurship (Cormier, 2007; Santos, Marques, and Ferreira, 2018; Knörr, 2011; Mattis, 2004; Rashid and Ratten, 2020). Therefore, the GC should have a positive relationship with EI in our study.

We found NFR has a negative interaction effect on the GC-EI relationship. We explain this result by the psychological outcomes of individuals with defensive self-esteem (Borton et al., 2012; Lambird and Mann, 2006), who cannot follow regulatory actions when their ego is threatened (Lambird and Mann, 2006) and downplay the threat from the environment (Borton et al., 2012). As argued above, women professionals who face high GC and have high NFR can be examples of individuals with defensive self-esteem. In line with the behavior of individuals with defensive self-esteem, women with high GC and high NFR may not regulate their career choice for their best interest by opting entrepreneurship when they face hindrance in career which threatens their ego. Moreover, due to high GC, the gender-based stereotypes become more salient, more so for women with high NFR or high need for external approval. This might lead them to feel higher perceived failure of entrepreneurial activity or alternative career choices as social stereotypes do not encourage or approve women to take such roles. They might keep on trying to break the glass-ceiling even though they are facing higher hindrance in their existing job. In the presence of role models and support groups, such behavior becomes more prevalent (Baumgartner and Schneider, 2010; Liu, 2013; Nikou et al., 2019). The number of female role models in industry has increased significantly in last decade who has broken the glass-ceiling within their organization. Nowadays, an increasing number of women are interacting and helping each other through social media; these discussions are also playing a major in women's empowerment by enhancing their sense of agency and sense of community (Stavrositu and Shyam Sundar, 2012). Through these virtual social communities, women now can raise their voices against discrimination or any other problems they wish to consider. All these factors

collectively motivate women, who faced the GC and have a high need for recognition (NFR), to break the glass ceiling within their job role instead of searching for alternatives. Thus, we see that the GC-EI relationship strength drops in the presence of NFR.

Family support acts as an enabler for the women professionals for their success. Women professionals have agreed that regardless of their profession, good support systems are necessary to balance these demands with career growth (Agarwal et al., 2020; Baumgartner and Schneider, 2010). When women have the FS, they can choose the career best for her. Therefore, when such a women face the GC, they search for alternative career paths, such as entrepreneurship (Gill and Ganesh, 2007). FS also helps them in career transitions in such cases. Hence, FS will increase the relationship strength between GC and EI.

Theoretical Contribution

The study makes theoretical contributions as follows:

Relative importance and interplay of push-pull factors

The drivers of EIs have been classified as a push or pull factors; the differential impact of such factors has not been resolved. Although some researchers have concluded that the push factors were the major reasons, whereas others have shown the pull factors as the primary motivating factors (Mattis, 2004; Özsungur, 2019; Rashid and Ratten, 2020) for starting a business, thus creating a research gap. Moreover, researchers who have focused on the impetus of push and pull factors have not explored the same in conditions the coexistence of push and pull factors (Humbert and Drew, 2010; Mattis, 2004; Orhan and Scott, 2001). Notably, the number of studies that have explored the coexistence of push and pull factors has been limited. In this paper, we bridged the gap by showing the direct and interacting effects of the pull-push factors on EIs. We showed that the importance of push factors (the

GC) is moderated by the effects of other push (FS) and pull (NFR) factors. This interplay of push and pull factors in EI is a noble contribution. We also suggest that the influence of the pull factors are higher than push factors in general. Thus, the paper contributes to the literature of EI and relative importance of push-pull factors (Mattis, 2004; Özsungur, 2019; Rashid and Ratten, 2020).

Novel findings on the Glass Ceiling

We found a very few research on barriers to women's career growth, such as the GC, that have been found to be moderated by other antecedents of women's entrepreneurship. In this study, we showed that the GC-EI relationship is moderated by NFR and FS: high NFR reduces GC-EI relationship strength while high FS increases it. Thus, the study contributes to the literature on the effects of the glass ceiling on women's career choice and women's entrepreneurship (Barreto, Ryan, and Schmitt, 2009; Baumgartner and Schneider, 2010; Cooper Jackson, 2001; Mattis, 2004; Özsungur, 2019; Rashid and Ratten, 2020). The above results also make important contributions to the literature of psychology in human career decision making (Lease and Dahlbeck, 2009), especially to the literature on defensive self-esteem (Borton et al., 2012; Lambird and Mann, 2006) by providing empirical evidences and extensions of the existing theories.

Novel finding on Family Support

The literature has given immense importance to the struggles of women to maintain their work-family balance and has labeled it a push factor for women's entrepreneurship (Santos, Marques, and Ferreira, 2018; Özsungur, 2019; Patterson and Mavin, 2009). Researchers of this paper were unable to find research in the area of women entrepreneurial intention that has that had suggested a positive relationship between FS and EI, and also its moderating effects of GC-EI relationship. Our study shows a noble finding on the FS–EI relationship,

contributing to the literature on women's entrepreneurship (Boeri, 2018; Budig, 2006; Özsungur, 2019; Patterson and Mavin, 2009).

Managerial and Policy Implication

Our study has contributed to managerial and policy implications as follows:

First, this study helps policymakers understand the current status of the GC, providing insights into how it affects women's career growth. Policymakers have been encouraging women's entrepreneurship, possibly more than ever before, as it have been recognized as vital to economic growth and development, sustainability and poverty alleviation (Cuberes and Teignier, 2014; Rosca, Agarwal, and Brem, 2020). If such participation in women's entrepreneurship were not a choice but a compulsion due to unethical practices in the organizations they work, the positive results of women's entrepreneurship would naturally decrease. Despite the increase in the number of women entrepreneurs, however, researchers have shown that women-led businesses are smaller, have fewer assets, grow more slowly, and are less profitable than men-owned companies (Coleman and Robb, 2009; Jennings and Brush, 2013; Ladge, Eddleston, and Sugiyama, 2019; Yang and del Carmen Triana, 2019); this finding could possibly explain or justify the result demonstrated by previous researchers (Langowitz and Minniti, 2007). Hence, the policymakers need to understand that the growth in the number of women entrepreneurs is not always coveted or not a measure of success of a pro-entrepreneurship policy. Policymakers must also focus on avoiding situations that force women to leave the workforce and enter the entrepreneurship arena. Therefore policies which create a balance between lowering workplace discrimination and encouraging alternative career such as entrepreneurship are required.

Second, our study also suggests organizational strategies to reduce attrition and improve growth through intrapreneurship. The result suggests when with high NFR, women

facing GC will not go for entrepreneurship. This finding suggests that women in senior positions, who have high NFR, also possibly must face the GC; thus, they would have lower EI and would thereby attempt to fight to break the GC. However, we have found that while facing GC, women professionals with a low or moderate level of the NFR, may leave their job and start their own venture. Therefore, to reduce the attrition rate of senior-level women employees while increasing their productivity, organizations should examine their policies and encourage women with a higher need for recognition (NFR) to participate in innovation. One such strategy could be to encourage intrapreneurship, which may help reduce attrition of working women, leading to organizational success.

The negative interaction of NFR-GC on EI also suggests that EI is higher when the GC effect is low and the NFR is high, or when the NFR is low and the GC effect is high; notably, that none of the aforementioned situations are coveted for a society. Higher EI results from a higher pull factor (NFR) and lower push factor (GC) and therefore have a higher chance of success. However, such a situation is detrimental for other women who do not have a high Need for recognition (NFR); thus, policymakers should focus on increasing the Need for recognition (NFR) of women at large. This increase could be achieved by women-centric promotional activities, whereby policymakers could use women as role models, and by encouraging girls or young women in schools and colleges to create their own identity (Byrne, Fattoum, and Diaz Garcia, 2019). By contrast, entrepreneurship with push factors (high GC) and not pull factors (low NFR) as the driver tends to result in limited success; thus, women's entrepreneurship may fail with higher frequency. Policymakers could thus formulate strategies to identify such entrepreneurial activities and help them through business strategy classes.

The literature has indicated that family responsibilities demand more participation from women than men. Along with childcare, household labor activities and eldercare

responsibilities are often fulfilled by women, and this phenomenon often creates an added difficulty when women attempt to reconcile family demands with inflexible employment in the formal sector. Women's entrepreneurship can therefore be a means of providing flexibility in a work schedule, which might not be available in more traditional wage or salary employment (Humbert and Roomi, 2018; Patterson and Mavin, 2009; Rashid and Ratten, 2020). Our results suggest policymakers to encourage higher FS for women, so that women can choose entrepreneurship as an alternative career choice, even if they feel the effect of the GC at their jobs. Policies that include FS and women's entrepreneurship, such as family guaranteed access to loans or capital and tax benefits for women-run family businesses can encourage FS that promotes women's entrepreneurship, leading to higher levels of success.

Organizations, institutions, and governments have created different types of trainings and programs to promote women's empowerment. Notably, this study indicated that a top-down approach is optimal. In other words, along with organizing a workshop or training program for women, these institutions and organizations should organize workshops and training programs that target policymakers to ensure zero discrimination within an organization. While countries like USA already have laws against discriminations, many developing countries and countries with patriarchal societies do not have such laws or strong implementation measures.

Limitation and Future Scope

The first limitation was that our study focused on only women's EI and not women's actual entrepreneurship. Notably, the literature has suggested that intention may not always lead to behavior, more so in the case of the women (Shinnar et al., 2018). Therefore, further research should also focus on how the push and pull factors explored in our study actually impact the entrepreneurial endeavors of women. Regarding the second limitation, women could be

affected by the GC and gender-based discriminations even in their entrepreneurial ventures; thus, how sequential gender discrimination, first in a job and then in entrepreneurship, could impact career choices of women could be worthy of investigation. Longitudinal studies using a sample of women might also help to answer this question. The final limitation was that because we used a survey as the data collection method, self-reporting bias could have affected our results; notably, a mixed–method-based analysis could possibly overcome such gaps.

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TABLES

Table 1. Demographic information of participants

Field	**Percentage%**
Age (years)	
Below 25	11.48
25 to 50	85.25
>50	3.28
Country	
India	70.53
Pakistan	2.65
Bangladesh	12.58

Srilanka	5.30
Others	8.94
Marital Status	
Married	61.25
Unmarried	38.75
Motherhood	
Yes	44.03
No	55.97
Industry	
Banking	13.95
Hospitality	12.79
IT	27.91
Manufacturing (Fabric, Jewellery, wine making, Computer, automobile)	8.14
Pharma	4.65
Telecommunication	2.33
Public service	9.30
Research and Education	15.12
Media and Entertainment	3.49
Petrochemical	2.33

Table 2. Statements used to measure various variables- Factor loading and reliability

	Statements	**Factor Loadings**
Need for Recognition (Cronbach's α=0.84, Sourced from: Shane et al, 1991)	I think I should have my own identity	0.88
	I think people should recognize me for my work	0.76
	I feel I am equally worthy as my peers	0.63
	I do not think that I am meant for household chores only	0.65
Family Support (Cronbach's α=0.88, Sourced from: Malecki and Demaray, 2002)	My family members provide active support for my professional growth	0.90
	My family members provide necessary back up at home which helps me maintain work-life balance	0.91
	I get enriched by the inputs received from my family members which leads to my success in professional world	0.73
Glass ceiling (Cronbach's α=0.82, Sourced from: Smith, Crittenden, and Caputi, 2012)	I have faced sexist barriers in the beginning of my career	0.70
	Based on my past experience I think, it will take decades for women to reach equality with men in high-level management positions	0.80
	Based on my past experience I think, even women with many skills and qualifications fail to be recognized for	0.68

	promotion	
	I/My female friends or colleagues have faced barriers to promotions in most organizations.	0.79
Intention for Entrepreneurship (Cronbach's α=0.87, Sourced from: Liñán, and Chen, 2009)	I have plans to start my own business in next six months	0.97
	In the last six months, I have already taken some steps to start my own business (e.g., gathered information, worked out a business idea with friends, wrote a business plan).	0.71
	A career as an entrepreneur is attractive to me	0.71

Table 3: Descriptive and Discriminant Validity Test of the Measurement Scales

	Mean	SD	CR	AVE	Mother	Age	Edu	Loc	NFR	FS	GC	EI
Mother	0.44				1							
Age	34.26	2.7			0.45	1						
Edu	17.12	1.04			0.32	0.22	1					
Loc	0.69				0.11	0.14	0.11	1				
NFR	5.23	1.17	0.86	0.54	0.05	0.37	0.32	0.18	0.735			
FS	5.48	1.46	0.91	0.72	0.15	0.04	0.08	0.26	0.21	0.846		
GC	6.02	1.89	0.83	0.55	0.48	0.25	0.14	0.29	0.22	0.04	0.742	
EI	5.87	1.08	0.88	0.65	0.36	0.18	0.11	0.14	0.09	0.02	0.14	0.806

AVE= Average Variance Explained, NFR=Need for Recognition, GC= Glass Ceiling, FS = Family Support, EI= Intention of Entrepreneurship, Edu= Education, Loc=Location

Table 4: Structural Models

Model Number	0	1	2
Sample Size	302	302	302
Mother	0.01 (p= 0.871, S.E.= 0.08)	0.03 (p= 0.728, S.E.= 0.10)	0.09(p=0.641, S.E.= 0.09)
Age	-0.00 (p= 0.460, S.E.= 0.01)	0.00 (p= 0.543, S.E.= 0.01)	-0.00(p= 0.107 , S.E.= 0.01)
Education	-0.02 (p= 0.837, S.E.= 0.08)	-0.02 (p= 0.855, S.E.= 0.09)	0.01(p= 0.863, S.E.= 0.08)
Location	0.03 (p= 0.710, S.E. = .09)	-0.01(p= 0.932, S.E.= 0.11)	0.00(p= 0.666, S.E.= 0.10)
NFR		0.38(p= 0.000, S.E.= 0.06)	0.53 (p= 0.000, S.E.= 0.06)
GC		0.20 (p= 0.000, S.E.= 0.04)	0.23 (p= 0.000, S.E.= 0.03)
FS		-0.15 (p=0.000, S.E.= 0.04)	-0.19 (p= 0.000, S.E.= 0.04)
NFR x GC			-0.22 (p= 0.000, S.E.= 0.03)
FS x GC			0.07 (p= 0.019, S.E.= 0.03)
R^2	0.00	0.30	0.45
CFI	0.99	0.97	0.96
TLI	0.99	0.97	0.96
GFI	0.98	0.92	0.88
RMSEA	0.04	0.04	0.04
Chi sq	11.45	176.30	565.58
Df	8.00	118.00	360.00

Table 5: Multi-group analysis by Motherhood with EI as Dependent Variable

Group	Mother	Not Mother
NFR	0.56 (p= 0.000, S.E.= 0.11)	0.53(p= 0.000, S.E.= 0.08)
GC	0.33 (p= 0.000, S.E.= 0.06)	0.16 (p= 0.000, S.E.= 0.04)
FS	-0.17 (p= 0.002, S.E.= 0.06)	-0.21 (p= 0.000, S.E.= 0.05)
NFR x GC	-0.17 (p= 0.000, S.E.= 0.04)	-0.25 (p= 0.000, S.E.= 0.03)
FS x GC	0.08 (p= 0.032, S.E.= 0.05)	0.06 (p= 0.083, S.E.= 0.03)
Age	0.01 (p= 0.285, S.E.= 0.01)	0.01 (p= 0.235, S.E.= 0.01)
Education	0.19 (p= 0.127, S.E.= 0.12)	-0.13 (p= 0.222, S.E.= 0.11)
Location	-0.28 (p= 0.070, S.E.= 0.16)	0.20 (p= 0.094, S.E.= 0.12)
R2	0.42	0.51

Table 6: Multi-group analysis by Age with EI as Dependent Variable

Group	Age_High	Age_Low
NFR	0.47 (p= 0.000, S.E.= 0.12,)	0.57 (p= 0.000, S.E.= 0.08)
GC	0.33 (p= 0.000, S.E.= 0.06)	0.16 (p= 0.000, S.E.= 0.04)
FS	-0.20 (p= 0.001, S.E.= 0.06)	-0.19 (p= 0.000, S.E.= 0.05)
NFR x GC	-0.36 (p= 0.000, S.E.= 0.06)	-0.19 (p= 0.000, S.E.= 0.03)
FS x GC	0.06 (p= 0.026, S.E.= 0.05)	0.03 (p= 0.224, S.E.= 0.03)
Education	0.09 (p= 0.489, S.E.= 0.13)	0.02 (p= 0.225, S.E.= 0.11)
Location	0.15 (p= 0.274, S.E.= 0.14)	-0.10 (p= 0.448, S.E.= 0.13)
Motherhood	0.15 (p= 0.227, S.E.= 0.13)	-0.06 (p= 0.600, S.E.= 0.12)
R^2	0.46	0.47

FIGURES

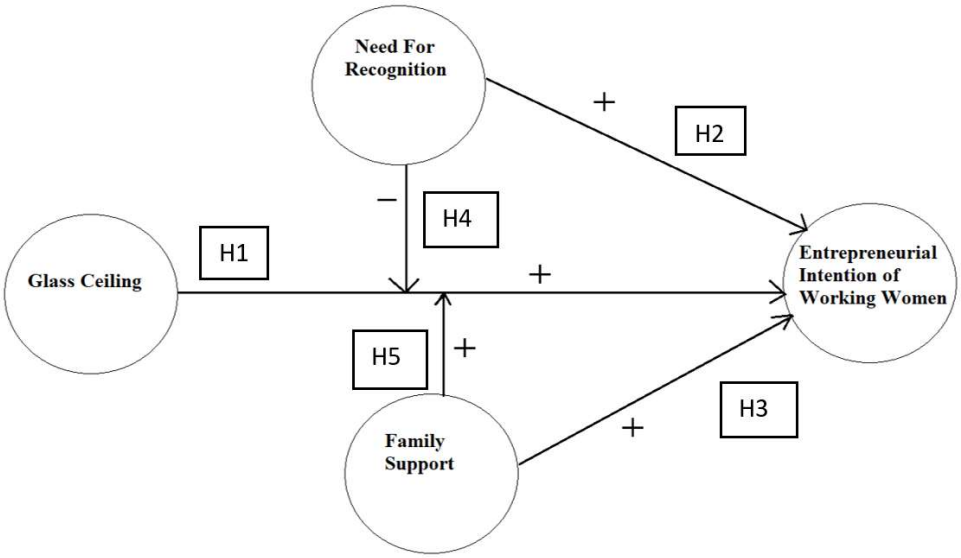

Figure 1: Theoretical Framework

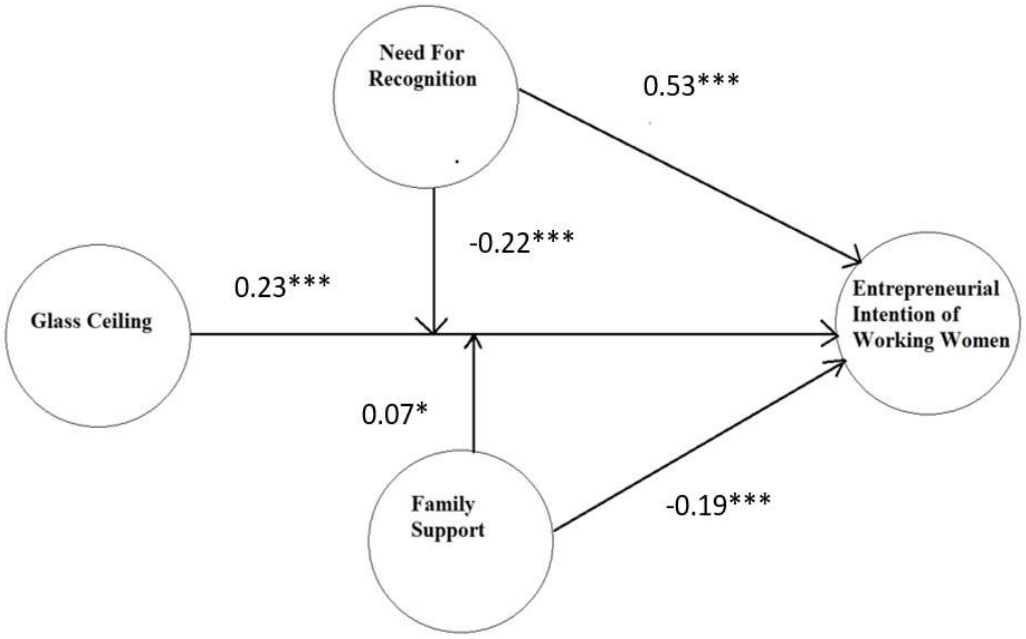

Figure 2: Final Model as per the Findings