# Mediating role of psychological capital in bi-directional work-family enrichment and innovative work behavior

Abstract: The current research examines the relationship between bi-directional work-family enrichment (work-to-family enrichment and family-to-work enrichment), psychological capital and innovative work behavior. 398 responses were collected using a questionnaire survey from married individuals, employed in a service sector organization. Data was analysed through structural equation modelling using AMOS 18 software. The study advocates that both work-to-family enrichment and family-to-work enrichment have a positive relationship with psychological capital. The study also builds on the theoretical foundation of Fredrickson's broaden-and-build theory and reports the mediating role of psychological capital in the relationship between bi-directional work-family enrichment and innovative work behavior.

Key Words: Work-to-family enrichment, Family-to-work enrichment, Psychological capital and Innovative work behavior.

## 1. Introduction

Extant literature has identified individual factors like personality (George and Zhou 2001; Kelly, 2006; Sung and Choi, 2009), initiatives (Talke, Salomo and Mensel, 2006), and proactivity (Kim, Hon and Lee, 2010; Seibert, Kraimer and Crant, 2001) as individual level factors affecting innovative work behavior (IWB) of an employee. However a significant individual level construct Psychological capital (PsyCap) has not been related to IWB in the existing studies. PsyCap as an individual's trait has been identified to be crucial not only for personal growth and health of an individual (Qingquan, 2009; Avey, 2010; Liu et al., 2012) but also for organization level outcomes viz. helpful in combating stress, employee cynicism and reduce turnover intentions (Avey, Wernsing and Luthans, 2008; Avey, Luthans and

Jensen, 2009). Further, PsyCap has positive impact on job performance, organizational citizenship behaviour, and job satisfaction (Luthans, et al., 2007). Hence it would be interesting to study the relationship between psychological capital and innovative work behavior.

The need to study IWB is further emphasized as in Indian context, innovation has been noted as one of the most critical aspects (Bhatnagar, 2012) for success. Bhatnagar (2012) has cited various studies (e.g. Cappelli, Singh, Singh and Useem, 2010: p. 62) endorsing that Indian chief executive officers (CEOs) considered innovation and superior execution as some of the important tools to deal with the competition. Analysis of Dow Jones industrial index and Kauffman index of entrepreneurial activity reveal that recent economic slowdown (2007) has cultivated innovation leading to new business creation (Chakravorti, 2010, c.t. Bhatnagar, 2012: p.928). Moreover, Drazin and Schoonhoven (2008) pointed that "examining innovative work behavior in non U.S. work settings is rare. It is important to conduct innovation related research among organizations in emerging economies." Similarly, Bruche (2009) highlighted that "historic shift of business towards China and India has begun to change the global innovation landscape". It thus becomes important to study IWB in an emerging economy like India.

Therefore, this study examines the relationship between PsyCap, and IWB at the workplace. This study also quantitatively examines the relationship between work-to-family enrichment, family-to-work enrichment, and PsyCap, as proposed by Mishra et al. (Forthcoming) in Indian context, in their study using grounded theory approach.

## 2. Literature review and hypotheses

# 2.1. Work-to-family enrichment, family-to-work enrichment, and PsyCap

Based on role accumulation theory (Sieber, 1974) and expansion perspective (Marks, 1977), Greenhaus and Powell (2006) have introduced work-family enrichment as "the extent to which experiences in one role improve the quality of life in the other role".

Carlson et al. (2006) further mentioned that work-family enrichment is bi-directional in nature i.e. work-to-family enrichment and family-to-work enrichment. Work-to-family enrichment occurs when resources generated from involvement in work roles improve the quality of family life. Family-to-work enrichment occurs when resources generated from involvement in family roles improve the quality of work life.

This study advocates that the positive association between bidirectional work-family enrichment and PsyCap can be explained through broaden and build theory (Fredrickson, 1998). This theory states that positive feelings have the capacity to "broaden people's momentary thought-action repertoires, i.e. widen the array of the thoughts and actions that come to mind." The widening of thoughts and actions leads to building of various resources for the individual, like "physical resources (e.g., physical skills, health, longevity), intellectual resources (e.g. expert knowledge, intellectual complexity), social resources (e.g. friendships, social support networks), and psychological resources (e.g., resilience, optimism)" (Fredrickson, 1998). The theory also points that any resources gained through broad and build process are long-lasting i.e. they are not limited to the time when the individual is having positive experience (1998, 2001).

Thus, positive experiences like work-to-family enrichment and family-to-work enrichment may lead to building individual's PsyCap. Similar relationships have also been exhibited in the work done by Mishra et al. (Forthcoming) in Indian context, using grounded theory approach. Based on the above description following hypotheses are formulated:

Hypothesis 1: Work-to-family enrichment is positively and significantly related to PsyCap Hypothesis 2: Family-to-work enrichment is positively and significantly related to PsyCap

## 2.2. Psychological capital and innovative work behavior

## 2.2.1. Innovative work behavior

West and Farr (1990) have explained IWB as an intentional activity which can be performed at any level in the organization, with an aim to provide significant benefit to the group or to the organization. Kanter (1988) has explained that an individual's innovative work behavior begins with generation of ideas or solutions to deal with the identified problem. In the next stage, individual makes efforts to promote the idea in the group. The main purpose is to take support from the group members. Finally, after identification of a problem, generation of an idea and promotion of the idea, comes the stage of application of the idea where the individual presents "a prototype or model of the innovation ...that can be touched or experienced, that can now be diffused, mass-produced, turned to productive use, or institutionalized" (Kanter, 1988: p. 191).

Scott and Bruce (1994) have built on Kanter's (1988) explanation and have advocated innovation as a multistage process, with different activities and different individual behaviors necessary at each stage. Scott and Bruce (1994) pointed out that since innovative behavior involves discontinuous activities rather than distinct, sequential stages (Schroeder, Van de

Ven, Scudder, & Polley, 1989), individuals may adopt any combination of these behaviors in a given time. Kleysen and Street (2001) has pointed that new ideas may be related to development of new product ideas or technologies; making administrative changes; promotion and application of new ideas, technologies or work methods.

Innovation is often confused with a similar construct of creativity. It is useful to understand the fine line of difference between the two constructs. Creativity is explained as the generation of novel and useful ideas, products, or processes (Amabile, 1988). As explained earlier innovative work behaviours involves both introduction of both self-generated ideas as well as introduction of ideas which are new to the organization. Hence creativity requires absolute novelty of the idea whereas innovation only requires relative novelty of the idea to the unit of adoption (King, 1990). Another important difference is that where creativity is limited to the generation of a new idea, IWB involves other stages also like promotion and application of the idea.

Researchers (De Jong and Kemp, 2003; Ramamoorthy et al. 2005; Janssen, 2000) have identified various factors at organizational and individual level that may impact IWB. At organizational level Georgsdottir & Getz (2004) have sown that flexibility at workplace facilitates innovation. Other organizational level predictors for IWB include organizational culture (Cameron and Quinn, 1998; Trompenaars, 2007), innovative climate (Ekvall, 1996; Isaken et al. 2001; Tesluk et al. 1997), and functioning of managers and leaders (Mumford et al. 2002; Reuvers et al. 2008). Scott and Bruce (1994) conducted a study to establish determinants of IWB and they found that leadership, work group relations, and confidence on one's influential capacity effect innovative work behavior directly and indirectly through

climate perceptions. They reported that leadership, support for innovation, managerial role expectations, and career stage to be significantly related to employee's innovative behavior.

At individual's level, several predictors for IWB have been identified which include personality (George and Zhou 2001; Kelly, 2006; Sung and Choi, 2009), initiatives (Talke, Salomo and Mensel, 2006), proactivity (Kim, Hon and Lee, 2010; Seibert, Kraimer and Crant, 2001), systematic problem-solving style (Scott and Bruce, 1994) expected positive performance outcomes (Yuan and Woodman, 2010), self-esteem and perceived insider status in organization (Chen and Aryee, 2007), self-leadership competences (Houghton and Neck, 2002; Carmeli, Metair and Weisberg, 2006), and commitment (Jafri, 2010).

Yuan and Woodman (2010) demonstrated that individual's rationale for engaging in IWB depends on her/his expectations that IWB may have on job efficacy. Employees feel motivated to adopt IWB if they perceive it will have positive impact on their performance. Also, it was found that employees get engaged into activities for promoting the idea, if they feel confident about getting support from the higher management and cooperation from the group members. Employees are more likely to be confident if they perceive themselves to have high image and good relational capital at the workplace (Yuan and Woodman, 2010).

# 2.2.2. Psychological capital

PsyCap is first defined by Luthans et al. (2007: p. 3) as "An individual's positive psychological state of development and is characterized by:(i) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (ii) making a positive attribution (optimism) about succeeding now and in the future; (iii) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to

succeed; and (iv) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success." PsyCap is classified to be a state like construct and is open to development (Luthans et al., 2007: p. 4).

To the best of authors' knowledge there is no published literature which has studied impact of PsyCap on IWB. Hence, inferences for possible relationship between IWB and PsyCap is drawn from the literature reflecting independent association of four facets of PsyCap i.e. self-efficacy, hope, optimism and resilience with the IWB.

## 2.2.2.1.Self-efficacy

Employees high on efficacy are high on intrinsic motivation and consider themselves to be competent (Bandura, 1997; Deci and Ryan, 2000). Such individuals continue to have intrinsic motivation (Gong et al., 2009; Tierney and Farmer, 2002) even when faced with difficult situations, and hence believe that they can deal successfully with difficult situation. As pointed earlier to practice IWB it is required that a person should be confident about his/her abilities, and hence it is likely that an efficacious person will be able to adopt more IWB. Researchers have also pointed out that efficacious individuals are inventive, resourceful (Bandura, 1997) and creative (Amabile, 1996; Tierney & Farmer, 2002) which is also required to practice IWB.

## 2.2.2.2. Hope

Researchers have found hopeful employees play a significant role in the organizations. Larson & Luthans (2006) have shown that the hope levels of production in a small midwestern factory were associated to their job satisfaction and organizational commitment. Snyder and colleagues (1991) have shown that hope has a significant negative correlation with anxiety. High hope individuals tend to be independent thinkers. Individual's hope level

protects her/him against perceptions of vulnerability, uncontrollability, and unpredictability (Snyder, 2000).

Hopeful individuals tend to take risks and look for alternative pathways when old ones are blocked (Snyder, 1994, 2002). Luthans, Youssef and Avolio (2007) found that hopeful employees are likely to be creative and resourceful, even with tight budgets. Hopeful individuals seem more prone to work on creative ideas for solving problems and they look at problems and opportunities from different angels (Zhou & George, 2003). Hence, from the above studies it can be summarized that hopeful employees have high determination to achieve goal, and are risk takers, are independent thinkers, are aware about challenges and prepare alternative ways to deal with them. All these characteristics are crucial for practicing IWB. Therefore it may be inferred that employees with high hope will practice IWB.

# **2.2.2.3.Optimism**

Optimists feel that good things will happen leading to important cognitive and behavioural consequences (Carver and Scheier, 2003; Avey et al., 2006). Seligman (1998) said that an optimist gives external attribution to negative events i.e. in case of any undesirable event an optimist is likely to consider external situations and other individuals responsible. This external attribution avoids any reduction in their efforts even in difficult situations. Optimists positively view and internalize the good aspects of their lives not only in the past and the present, but also into the future (Luthans et al. 2007). Optimism will help an individual to concentrate on positive aspect of the task. It thus may lead to constructive thinking patterns. Carmeli, Meitar and Weisberg (2006) has pointed that constructive thinking patterns – are essential in the first stage of the innovative process where one needs to recognize problems and generate ideas for their solution. Moreover, expecting a positive outcome of actions

increases the probability of participating in further activity (Avey, Nimnicht and Pigeon, 2010). Rego (2011) has shown positive association between creativity and optimism. With positive attitude and constructive thinking it is expected that an optimistic attitude is likely to play a significant role in all the stages of IWB i.e. recognizing problems and generation of idea, promotion and implementation of idea.

## 2.2.2.4.Resilience

At the workplace positive association has been shown between resilient employees and job performance (Luthans & Avolio et al., 2007). In a study it was found that higher resilient employees exhibit higher job satisfaction, organizational commitment, and work happiness (Youssef and Luthans, 2007). Larson and Luthans (2006) reported positive association between resilient workers and their job satisfaction.

Torrance (1995) has highlighted significant role of 'courage' to perform IWB. The author has pointed that an employee undertaking IWB should be prepared to take challenges and risks. Sternberg and Lubart (1995) advocated that an individual practicing IWB might have to be in minority, at least in the early stages. IWB requires significant effort, risk-taking, ability and confidence to deal with uncertain conditions and obstacles. With this regard resilience, is especially significant for practicing IWB as it gives energy to the individual to fight back in adverse situations and continue to focus on the goal directed activity.

Hope, optimism, self-efficacy and resilience which together form a higher-order construct of PsyCap provides us with a new human resource development approach to help employees build the critical resources they need in today's stress-filled work-place (Avey et al., 2009). Thus, based on above description following hypothesis is formulated:

Hypothesis 3: PsyCap is positively and significantly related to innovative work behavior

# 2.3. Mediating effect of psychological capital

Past research has not studied relationship between PsyCap, work-family enrichment and innovative work behavior. Based on the limited knowledge of the researcher there is no studies relating the three variables, therefore on the basis of the explanations given in section 2.1 and 2.2, this study proposes that PsyCap fully mediates the relationship between enrichment and innovative work behavior:

Hypothesis 4: The relationship between work-to-family enrichment and innovative work behavior is fully mediated by PsyCap

Hypothesis 5: The relationship between family-to-work enrichment and innovative work behavior is fully mediated by PsyCap

## 3. Method

# **3.1. Sample**

The sampling method used in the study is multiple-random sampling. A self-administered questionnaire was distributed to 600 married individuals, working in service sector organizations like consulting, banking, media, IT, insurance and telecom. 398 valid responses were received i.e. a response rate of 66.3%. Babbie (1998) has suggested that 50% of the response rate is considered as adequate, 60% is considered as good and 70% is considered as very good. Therefore the response rate for this study was considered to be within the accepted limits.

The age group of respondents varied between 29 years to 42 years, with 208 respondents (52.3%) in the age group of 29 to 35 years. The minimum experience of the respondents was 2 yrs. All the respondents had either a degree in engineering or management. 183 respondents (46%) belonged to joint families while 215 (54%) were from nuclear family. 137 respondents (34.4%) were females and 261 respondents (65.6%) were males. 267 respondents (67.1%) had one or more children while 131 (32.9%) did not have any child.

## 3.2. Measures

# **Work-to-family enrichment**

Work-to-family enrichment (WFE) is measured by a nine item scale constructed by Carlson et al. (2006). Respondents were requested to provide their response on a six point scale where 'strongly disagree' is (1) and 'strongly agree' is (6). An example item is "My involvement in my work makes me cheerful and this helps me be a better family member". Cronbach's Alpha for the scale is 0.96.

# Family-to-work enrichment

Family-to-work enrichment (FWE) is measured by a nine item scale constructed by Carlson et al. (2006). Respondents were requested to provide their response on a six point scale where 'strongly disagree' is (1) and 'strongly agree' is (6). An example item is "My involvement in my family requires me to avoid wasting time at work and this helps me be a better worker". Cronbach's Alpha for the scale is 0.94.

## **Psychological Capital**

PsyCap Scale is prepared by F., Avolio, B., Avey, J., & Norman, S. (2006). This is a 24 item scale. Shortened version of the scale (twelve items) is prepared by Caza et al., (2010). They developed the shortened version in consultation with one of the authors of the original questionnaire. This study has taken shortened version of the scale. The example item is "I usually take stressful things at work in stride". The Cronbach's Alpha for the scale is 0.96.

#### **Innovative work behavior**

To measure IWB 6 items were adapted from a scale prepared by Kleysen and Street (2001). The example item is "In my current job I recognize opportunities to make a positive difference in my work, department, organization, or with customers". The Cronbach's Alpha for the scale is 0.93.

## 4. Results

To assess the degree to which psychological work-to-family enrichment and family-to-work enrichment were related to psychological capital and the mediating role of psychological capital, structural equation modelling (SEM) was used. Software used for the analysis of the model was AMOS (version 18.0). The benefit of using SEM is that it simultaneously estimates a series of interrelated relationships, in the hypothesized model (Byrne 1994). The covariance matrix was used as the input for analysis. Various fit measures were considered in assessing the two models (Hair, Anderson, Tatham, & Black, 1998). Chi-square statistic, root mean square error of approximation (RMSEA), squared root mean residual (SRMR), comparative fit index (CFI), and Akaike information criterion (AIC) were used to decide the preferred model. A model is considered fit if  $Chi \le 3$ ,  $RMSEA \le 0.05$ ,  $SRMR \le 0.8$ , and CFI > 0.95 (Hair, Anderson, Tatham, & Black, 1998).

## 4.1. Descriptive results

Table 1 depicts the latent correlations among the study variables. The correlations are as per expectation. Age group and number of children are correlated as higher age respondents are expected to have more children. Similarly, family type and age group are correlated suggesting that older respondents stay in joint family while younger respondents stay in nuclear family. High correlation between WFE and PsyCap is as per the proposed hypotheses. Similarly, the other variables are correlated as per the proposed hypotheses.

**Table 1: Descriptive statistics of the variables** 

|              | Gender | Family | Age    | Number of | WFE     | IWB     | PsyCap  | FWE     |
|--------------|--------|--------|--------|-----------|---------|---------|---------|---------|
|              |        |        | Group  | Children  |         |         |         |         |
| Gender       |        |        |        |           |         |         |         |         |
| Family       | 009    |        |        |           |         |         |         |         |
| AgeGroup     | .001   | .663** |        |           |         |         |         |         |
| NoOfChildren | 007    | .459** | .666** |           |         |         |         |         |
| WFE          | .353** | .026   | 025    | .002      | (0.983) |         |         |         |
| IWB          | .155** | .070   | .024   | .001      | .666**  | (0.930) |         |         |
| PsyCap       | .171** | .049   | .015   | .010      | .685**  | .945**  | (0.973) |         |
| FWE          | 032    | 009    | 004    | 009       | .138**  | .369**  | .419**  | (0.983) |

# 4.2. Measurement model

The measurement model was adequately fit. CMin/df was 1.894 while RMSEA = 0.047; CFI = 0.963; and Pclose = 0.833. All the indices are within the prescribed limit and therefore measurement model was considered to be adequately fit.

## 4.3. Structural model

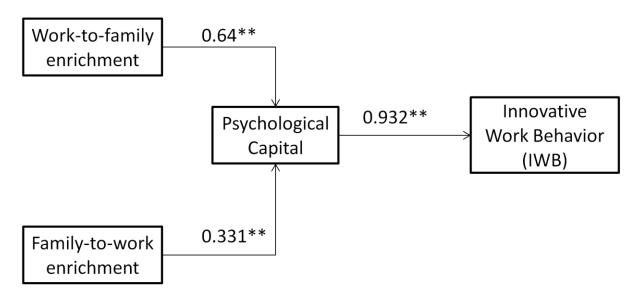
## **4.3.1.** Model fit

Table 2 represents the fit indexes for the structural model.

Table 2: Comparative fit of the structural model

| Model/Criteria | Cmin/df | RMSEA | RMR   | CFI   | GFI   | AGFI  | NFI   |
|----------------|---------|-------|-------|-------|-------|-------|-------|
| Structural     |         |       |       |       |       |       |       |
| Model          | 2.323   | 0.058 | 0.010 | 0.988 | 0.994 | 0.971 | 0.995 |

The path diagrams of the models are shown in the figure 2 below.



<sup>\*\*</sup> Statistical significance at 99% confidence

Figure 2: Path diagrams for the analyzed model

## 4.3.2. Test of mediation

Mediation has been tested as per Baron and Kenny (1986). According to Baron and Kenny (1986), there are three conditions for full mediation:

- i. IV is significantly related to the mediator;
- ii. mediator is significantly related to DV; and

iii. independent variable (IV) is significantly related to the dependent variable (DV) and the relationship between IV and DV becomes insignificant when the mediator is introduced

It was found that PsyCap fully mediates the relationship between WFE and IWB. The direct relationship between WFE and PsyCap was 0.703 while the relationship between WFE and IWB was 0.688. The relationship between PsyCap and IWB was 0.916. After introducing PsyCap, the relationship between WFE and IWB became insignificant.

Similarly, it was found that PsyCap fully mediates the relationship between FWE and IWB. The direct relationship between FWE and PsyCap was 0.421, which was statistically significant for 99% confidence. FWE and IWB were positively related with the strength being 0.37. PsyCap was positively related with IWB with strength of 0.96. After PsyCap was introduced, the relationship between FWE and IWB became insignificant.

Based on the above analysis, Hypotheses 1, 2, 3, 4, and 5were accepted.

#### 5. Discussion

The first objective of this study was to study the relationship between bi-directional work-family enrichment and innovative work behavior. Both *Hypothesis 1* i.e. positive and significant relationship between work-to-family enrichment and PsyCap and *Hypothesis 2* i.e. positive and significant relationship between family-to-work enrichment and PsyCap were accepted. The result is in line with the past studies which have reported that enrichment leads to various positive effects. Lim, Sond and Choi (2012) conducted a study on Korean employees working in for-profit companies and Korean universities. They found that Korean

employee's life satisfaction (WLS) and job performance was significantly influenced by work-family enrichment. Jaga and Bagraim (2011) reported that work-to-family enrichment explains a significant proportion of the variance in both job satisfaction and career satisfaction and that the affective component of family-to-work enrichment explains a significant proportion of the variance in family satisfaction. Carlson et al. (2011) has also linked work-family enrichment with job satisfaction. In a meta-analysis performed by McNall et al. (2009) it was found that both work-to-family enrichment and family-to-work enrichment were positively related to job satisfaction, affective commitment, and family satisfaction. However, there is no study which links bi-directional work-family enrichment and PsyCap. This study adds to the literature by establishing a strong and positive association between the two.

This study advocates that broaden-and-build theory (Fredrickson, 1998, 2001) provides insights into the fact that how effect of enrichment may result in building individual's PsyCap. Fredrickson & Branigan, (2005) has explained that positive experiences leads to enhancement of one's positive emotions that tend to expand one's 'thought-action repertoire' and negative emotions that tend to limit one's 'thought-action repertoire'. Fredrickson (1998; 2002) has explained that positive experiences which the individual encounter increases intellectual, physical social and psychological resources. Using the theoretical foundation of broaden-and-build theory (Fredrickson, 1998, 2001), this study advocates that both work-to-family enrichment and family-to-work enrichment are such positive experiences which may lead to making feel one more confident about his/her ability to deal with challenges, make the person feel more optimistic, hopeful and also improves on individual's capability to sustain in situations of adversity and bounce back.

PsyCap is defined as a state-like construct and therefore, it is open to development (Luthans et al., 2007). Luthans et al. (2008) has identified need for studies which can establish factors which may develop PsyCap. In a study, Gooty et al. (2009) identified that, follower's perception of transformational leadership helps in development of PsyCap and has a positive impact on employee's in-role performance and organizational citizenship behavior. This study also adds to the limited research by identifying that positive association between bidirectional work-family enrichment and PSyCap.

This study shows a strong and positive relationship between PsyCap and IWB (*Hypothesis 3*). The extant literature has identified many consequences of higher PsyCap. Luthans et al., (2007) have proved in their study that PsyCap (i.e. united effect of hope, optimism, selfefficacy and resilience) has stronger relationship with job performance and job satisfaction than what each of the construct (i.e. hope, optimism, self-efficacy and resilience) individually has. PsyCap was found to have a direct and strong negative relationship with employee cynicism (Avey, Wernsing & Luthans, 2008). PsyCap was found to play a crucial role in combating stress and reduce turnover intentions (Avey, Luthans and Jensen, 2009). Avey, Patera and West (2006), reported negative relation between PsyCap and absenteeism. PsyCap has been found to mediate relationship between supportive organizational climate and employee performance (Luthans et al., 2008). PsyCap through positive emotions had an indirect effect on engagement and organizational citizenship behavior (Avey, Wernsing & Luthans, 2008). Researchers have reported positive relation between PsyCap and employee well-being (Avey, Luthans, Smith and Palmer, 2010), employee performance (Luthans et al., 2008) and organizational commitment (Larson and Luthans, 2006; Luthans et al., 2008). However, to best of authors' knowledge association between PsyCap and innovative work behavior has yet not been explored. However, there are no studies relating the variables

studied in this paper. This study adds to the literature by advocating strong and positive association between the two.

Employees high on PsyCap are more hopeful, optimist, confident and resilient. As mentioned by scholars, for practicing innovative work behavior it is important that individual should trust her/his capabilities. Individuals with high self-efficacy are likely to be confident about self. An optimist will be positive about success of her/his idea and a resilient is likely to show the courage to deal with difficult situations. Similarly, literature has pointed that, employees are expected to practice innovative work behavior when they are hopeful that their idea can help the organization and improve their performance (Yuan and Woodman, 2010). Hopeful individuals will not only do an objective assessment of their ideas but will also be ready with alternative plans to deal with any unwanted situation. This is very important for successful implementation of any new idea at workplace where one needs to deal with various social, technological and structural challenges. Hence such traits are useful in practicing innovative work behavior. This finding supports a study conducted by Luthans et al. (2011), where through a quasi-experimental research design on 1,526 working adults, they demonstrated that PsyCap when partially mediated through a mastery-oriented mindset is positively related to problem solving performance, and reported innovation.

This study establishes that PsyCap plays a mediating role between (i) work-to-family enrichment and IWB, and (ii) family-to-work enrichment and IWB (*Hypothesis 4 and 5*, respectively). This is a pioneering study, as to the best of researcher's knowledge there is no study done which explores the relationship between the three variables i.e. bi-directional work-family enrichment, PsyCap and IWB.

## 6. Implications, limitations and future directions

# 6.1. Implications

This study contributes to the literature in many ways. It adds to the sparse literature of family-to-work enrichment. This study explores both directions of enrichment (work-to-family and family-to-work) in the same research. Researchers have noted that there are very few such studies (Carlson, Grzywacz, & Zivnuska, 2009; Michel & Clark, 2009; Wayne, Musisca, & Fleeson, 2004). Another contribution to the literature is that this study identifies work-to-family enrichment and family-to-work enrichment as crucial factors in building PsyCap. Luthans (2008) has stated that, "There is dearth of study which explores factors that may build on individual's psychological capital. If antecedents are well understood then both practitioners and researchers can develop prescriptive models for improving psychological capital. It can potentially open up a new line of research in future." Also, this study expands the literature by exploring certain unidentified relationships like mediating role of PsyCap between bi-direction work-family enrichment and IWB.

This study reveals influence of individual factors (in the form of PsyCap) on practicing of innovative activity in the workplace. It justifies the need to take this fact into account during various HR processes like the recruitment process so that the appropriate fit between the job requirements and individual is established and for designing/conducting trainings to develop required competences.

Positive relation between work-to-family enrichment, family-to-work enrichment and PsyCap suggests human resource managers to develop family-friendly culture and promote family-friendly organizational policies. This can be done by sensitizing supervisors, and teammembers about importance of their support for building an adequate work-family culture.

Management should also encourage use of flexible hours, provide choice of working for less hours, fixed paid leaves to deal with family responsibilities at all organizational level and work from home facilities. Employees may be provided soft-training to inculcate positive group behavior and norms (Hammer et al. 2009; Kossek and Hammer, 2008). The employees should be able to confidentially use these policies without the feeling of threat to the career growth or job security.

A designated HR executive to a set of families should be appointed with the responsibility to hold periodic meetings to address their concerns. Such initiatives will not only benefit the growth of employee but will also promote IWB. Especially, in a family-centric society (Sinha & Sinha, 1990) like India it is important that the organizations should not only make strategic efforts to develop people through organizational interventions, but also consider their family as integral part and facilitator of individual as well as organizational performance (*Gupta*, 1999; *Verma*, 2007).

## 6.2. Limitations and future directions

The data for the study was collected from employees working in service sector organizations. Future research may be carried out including other sectors such as manufacturing. Also, the study was carried out amongst employees working in private sector organizations. It may be helpful that future research may be carried out to examine the relationships also in the public sector organizations. Comparisons between the two sectors may be useful in drawing learning from each other.

Literature has identified that it is important to understand single employees' views of work-family issues (Young, 1999). Similarly, future studies may explore the phenomenon from the point of view of divorced and single parents.

A longitudinal study may be carried out to explore these relationships over time. This study is limited to the individual level; it can be extended to study interaction and consequences at the work-family system level. Also, further research can build on the findings related to the moderating influences of gender, family type, and no. of children.

## References

- Amabile T.M. 1988. A model of creativity and innovation in organizations. In B.M. Straw and L.L. Cummings (Eds). *Research in Organizational Behavior*, 10.
- Amabile, T.M. (1996), Creativity in context, Boulder, CO: Westview Press.
- Avey, J. B., Nimnicht, J. L., & Pigeon, N. G. (2010). Two field studies examining the association between positive psychological capital and employee performance.

  \*Leadership & Organization Development Journal, 31(5), 384-401.
- Avey, J.M., Luthans, F., & Jensen, S.M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management*, 48, 677–693.
- Avey, J. B., Wernsing, T.S., & Luthans. F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The Journal of Applied Behavioral Science*, 44(1), 48-70.
- Bandura, A. (1997), Self-efficacy: The exercise of control, New York: Freeman.

- Baron, R.M., and Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical Considerations, *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Bhatnagar, J. (2012). Management of innovation: Role of psychological empowerment, work engagement and turnover intention in the Indian context. *The International Journal of Human Resource Management*, 23(5), 928-951.
- Bruche, G. (2009). A new geography of innovation—China and India rising. Columbia FDI Perspectives: Perspectives on topical foreign direct investment issues by the Vale Columbia Center on Sustainable International Investment (4). Retrieved July 9, 2013, from <a href="http://hdl.handle.net/10022/AC:P:8774">http://hdl.handle.net/10022/AC:P:8774</a>
- Cameron, K.S., and Quinn, R.E. (1998), *Diagnosing and changing organizational culture*.

  based on the competing values framework, Reading, MA: Addison-Wesley.
- Cappelli, P., Singh, H., Singh, J., and Useem, M. (2010). *The India way*, Boston, MA: Harvard Business School Press.
- Carlson, D. S., Grzywacz, J. G., & Zivnuska, S. (2009). Is work—family balance more than conflict and enrichment?. *Human Relations*, 62(10), 1459-1486.
- Carlson, D.S., Kacmar, K.M., Wayne, J.H., & Grzywacz, J.G. (2006). Measuring the positive side of the work–family interface: Development and validation of a work–family enrichment scale. *Journal of Vocational Behavior*, 68(1), 131-164.
- Carlson, D., Kacmar, K. M., Zivnuska, S., Ferguson, M., & Whitten, D. (2011). Work-family enrichment and job performance: A constructive replication of affective events theory.

  \*\*Journal of Occupational Health Psychology, 16(3), 297.
- Carmeli, A., Meitar, R., and Weisberg J. (2006). Self-leadership skills and Innovative Behaviour at Work. *International Journal of Manpower*, 27(1), 75–90.

- Carver, C.S., and Scheier, M.F. (2003). Optimism, in *Handbook of Positive Psychology*, eds. C.R. Snyder and S.J. Lopez, Oxford: Oxford University Press, pp. 231-243.
- Caza, A., Baggozi, R. P., Woolley, L., Levy, L., and Caza, B.B. (2010). Psychological capital and authentic leadership: Measurement, gender, and cultural extension Asia-Pacific, *Journal of Business Administration* 2 (1), pp. 53-70.
- Chakravorti, B. (2010). Finding Competitive Advantage in Adversity. *Harvard Business Review*, November, 81–86.
- Chen, Z.X., and Aryee, S. (2007). Delegation and Employee Work Outcomes: An Examination of the Cultural Context of Mediating Processes in China. *Academy of Management Journal*, 50(1), 226–238.
- De Jong, J.P.J., and Hartog, D.N.D. (2007). How Leaders Influence Employees' Innovative Behavior. *European Journal of Innovation Management*, 10, 41-64.
- Deci, E.L., and Ryan, R.M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior', *Psychological Inquiry*, 11, 227-268.
- Drazin, R. and Schoonhoven, C.B. (1996). Community, population, and organization effects on innovation: A multilevel perspective. *Academy of Management Journal*, 39(5), 1065-1083.
- Ekvall, G., (1996). Organizational climate for creativity and innovation. *European Journal of Work and Organizational Psychology*, *5*(1), 105–123.
- Fredrickson, B.L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319.
- Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The broadenand-build theory of positive emotions. *American Psychologist*, *56*, 218–226.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological science*, *13*(2), 172-175.

- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313-332.
- George, J.M., and Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behaviour: An interactional approach. *Journal of Applied Psychology*, 86, 513–524.
- Georgsdottir, A.S., and Getz, I. (2004). How flexibility facilitates innovation and ways to manage it in organizations. *Creativity and Innovation Management*, 13(3), 166–175.
- Gooty, J., Gavin, M., Johnson, P. D., Frazier, M. L., & Snow, D. B. (2009). In the Eyes of the Beholder Transformational Leadership, Positive Psychological Capital, and Performance. *Journal of Leadership & Organizational Studies*, *15*(4), 353-367.
- Greenhaus, J.H., Powell, G.N. (2006). When work and family are allies: A theory of work family enrichment. *The Academy of Management Review*, 31(1), 72-92.
- Gong, Y., Huang, J.-C., and Farh, J.-L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, *52*, 765-778.
- Gupta, R. K. (1999). The truly familial work organization: Extending the organizational boundary to include employees' families in the Indian context. *Management and cultural values: The indigenization of organizations in Asia*, 102-120.
- Hammer, L. B., Kossek, E. E., Anger, W. K., Bodner, T., & Zimmerman, K. L. (2011).
   Clarifying work–family intervention processes: The roles of work–family conflict and family-supportive supervisor behaviors. *Journal of Applied Psychology*, 96(1), 134.
- Houghton, J.D., and Neck, C.P. (2002). The revised self-leadership questionnaire: Testing a hierarchical factor structure for self-leadership. *Journal Managerial Psychology*, 17(8), 672–691.

- Isaken, S.G., Lauer, K., Ekval, G., and Britz, A. (2001), 'Perceptions of the Best and Worst Climates for Creativity: Preliminary Validation Evidence for the Situational Outlook Questionnaire,' *Creativity Research Journal*, 13, 2, 171–184.
- Jaga, A., & Bagraim, J. (2011). The relationship between work-family enrichment and work-family satisfaction outcomes. *South African Journal of Psychology*, 41(1), 52-62.
- Jafri, M.H. (2010). Organizational commitment and employee's innovative behaviour. *Journal of Management Research*, 10(1), 62–68.
- Janssen, O., (2005). The joint impact of perceived influence and supervisor supportiveness on employee innovative behavior. *Journal of Organizational Behavior*, 78, 573 579.
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness, and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73, 287–302.
- Jeroen P.J. de Jong, Deanne N. Den Hartog, (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, 10(1), 41 64.
- Kanter, R.M. (1988). When a thousand flowers bloom: Structural, collective and social conditions for innovation in organizations. In B. M. Straw & L. L. Cummings (Eds.), *Research in Organizational Behavior*, 10, 123-167.
- Kelly, P. M. (2006). Innovation in milk powder technology. *International Journal of Dairy Technology*, 59 (2), 70–75.
- Kim, T.Y., Hon, A.H., and Lee, D.R. (2010). Proactive personality and employee creativity: the effects of job creativity requirement and supervisor support for creativity. *Creativity Research Journal*, 22, 1–9.
- King, N. (1990). *Innovation at work: The research literature. innovation and creativity at work.* Psychological and organizational strategies. M. A. West and J. L. Farr. Chichester, Wiley: 15-80.

- Kleysen, R.F., and Street, C.T. (2001). Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital*, 2(3), 284–296.
- Kossek, E. E., Lewis, S., & Hammer, L. B. (2010). Work—life initiatives and organizational change: Overcoming mixed messages to move from the margin to the mainstream.

  Human Relations, 63(1), 3-19.
- Larson, M., and Luthans, F. (2006). Potential added value of psychological capital in predicting work attitudes. *Journal of Leadership & Organizational Studies*, 13(2), 75-92.
- Lim, D. H., Choi, M., & Song, J. H. (2012). Work-family enrichment in Korea: Construct validation and status. *Leadership & Organization Development Journal*, *33*(3), 282-299.
- Liu, L., Chang, Y., Fu, J., Wang, J., and Wang, L. (2012). The mediating role of psychological capital on the association between occupational stress and depressive symptoms among Chinese physicians: a cross-sectional study. *BMC Public Health*, 12, 219.
- Luthans, F., Avey, J. B., & Patera, J. L. (2008). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning & Education*, 7(2), 209-221.
- Luthans, F., & Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Psychological capital:

  Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541–572.
- Luthans, F., Avolio, B., Walumbwa, F., & Li, W. (2005). The psychological capital of Chinese workers: Exploring the relationship with performance. *Management and Organization Review, 1*, 247–269.

- Luthans, F., Youssef, C. M., & Avolio, B. (2007). *Psychological capital: Developing the human competitive edge:* Oxford University Press.
- Luthans, F., Youssef, C. M., & Rawski, S. L. (2011). A tale of two paradigms: The impact of psychological capital and reinforcing feedback on problem solving and innovation.

  \*Journal of Organizational Behavior Management, 31(4), 333-350.
- Marks, S.R. (1977). Multiple roles and role strain: Some notes on human energy, time and commitment. *American Sociological Review*, 42 (6), 921-936.
- McNall, L. A., Nicklin, J. M., & Masuda, A. D. (2010). A meta-analytic review of the consequences associated with work–family enrichment. *Journal of Business and Psychology*, 25(3), 381-396.
- Michel, J. S., & Clark, M. A. (2009). Has it been affect all along? A test of work-to-family and family-to-work models of conflict, enrichment, and satisfaction. *Personality and Individual Differences*, 47(3), 163-168.
- Mishra, P., Gupta, R., & Bhatnagar, J. (Forthcoming). Grounded theory research: Exploring work-family enrichment in an emerging economy. *Qualitative Research Journal*.
- Mumford, M.D., Scott, G.M., Gaddis, B., and Strange, J.M. (2000). Leading creative people: orchestrating expertise and relationships. *Leadership Quarterly*, *13*(6), 705–750.
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, *39*, 607–634.
- Quingquan, P., & Zongkui Z. Psychological capital, coping style and psychological health: an empirical study from college students. ICISE, pp.3391-3394, 2009. First International Conference on Information Science and Engineering, 2009. Retrieved July 9, 2013, from http://doi.ieeecomputersociety.org/10.1109/ICISE.2009.860

- Ramamoorthy, N., Flood, P.C., Slattery, T., and Sardessai, R. (2005). Determinants of innovative work behaviour: development and test of an integrated model. *Creativity and Innovation Management*, 14, 142-150.
- Rego, A., Sousa, F., Marques, C., and E Cunha, M.P. (2012). Authentic leadership promoting employees' psychological capital and creativity. *Journal of Business Research*, 65, 429-437.
- Reuvers, M., van Engel, M.L., Vinkenburg, C.J., and Wilson-Evered, E. (2008).

  Transformational leadership and innovative behaviour: exploring the relevance of gender differences. *Creativity and Innovation Management*, 17(2), 227–244.
- Schroeder, Roger, Andrew H. Van de Ven, Garry Scudder and Douglas Polley (1989), "The development of innovation ideas," In Andrew H. Van de Ven, Harold Angle and Marshall Scott Poole (eds), *Research on the management of innovation: The Minnesota studies*, 107-134, New York: Harper & Row.
- Scott, S.G., and Bruce, R.A. (1994). Determinants of innovative behaviour: a path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580–607.
- Seibert, S.E., Kraimer, M.L., and Crant, J.M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, *54*, 845–874.
- Seligman, M.E.P. (1998). Learned Optimism, New York: Pocket Books.
- Sieber, S.D. (1974). Toward a theory of role accumulation. *American Sociological Review*, 39(4): 567-578.
- Sinha, J.B.P. and Sinha, D. (1990) Role of social values in Indian organizations. *International Journal of Psychology*, 25:705-14.
- Snyder, C. R. (1994). The psychology of hope. New York. Free Press.

- Snyder, C. R. (2000). The past and possible futures of hope. *Journal of Social and Clinical Psychology*, 19,11-28.
- Snyder, C.R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13,* 249-276. Stenberg, R., and Lurart, T. (1995). *Defying the Crowd: Cultivating Creativity in a Culture of Conformity*, New York: Free Press.
- Sung, S.Y., and Choi, J.N. (2009). Do big five personality factors affect individual creativity? the moderating role of extrinsic motivation. *Social Behaviour and Personality*, *37*(7), 941–956.
- Talke, K., Salomo, S., and Mensel, N. (2006). A competence-based model of initiatives for innovations. *Creativity & Innovation Management*, 15(4), 373–384.
- Tesluk, P.E., Farr, J.L., and Klein, S.A. (1997). Influences of organizational culture and climate on individual creativity. *Journal of Creative Behavior*, 31(1), 27–41.
- Tierney, P., and Farmer, S.M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45(6), 1137–148.
- Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relations. *Personnel Psychology*, 52, 591–620.
- Torrance, E.P. (1995). Why Fly? A Philosophy of Creativity, Norwood, NJ: Ablex.
- Trompenaars, F. (2007), Riding the Whirlwind. Connecting People and Organizations in a Culture of Innovation, Oxford: The Infinite Ideas Company Limited.
- Verma, Y. V. (2007). Passion: The Untold Story of LG Electronics India. Biztantra, India.
- Wayne, J. H., Musisca, N., & Fleeson, W. (2004). Considering the role of personality in the work–family experience: Relationships of the big five to work–family conflict and facilitation. *Journal of Vocational Behavior*, 64(1), 108-130.

- West, M., & Farr, J. L. (1990). Innovation at work. In West, M. A., & Farr, J. L. (Eds.), Innovation and creativity at work. (pp. 3-13). Chichester: John Wiley & Sons, Ltd.
- Young, M. (1996). Career issues for single adults without dependent children. In D. T. Hall (Ed.), *The career is dead-long live the career: a relational approach to careers*. San Francisco: Jossey-Bass.
- Youssef, C. M., & Luthans, F. 2007. Positive organizational behavior in the workplace: The impact of hope, optimism, and resiliency. *Journal of Management*, 33, 774–800.
  Yuan, F., and Woodman, W.R. (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal*, 53(2),

323-342.