

Antecedents of Constructive Deviance Behaviors and The Mediating Role of Psychological Empowerment: Conditional Process Analysis

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Abstract

The purpose of the current study was to test self-esteem, extraversion, risk-taking propensity, proactive personality and generalized self-efficacy as predictors of constructive deviance behaviors and to test the mediating role of psychological empowerment between the antecedents and constructive deviance behaviors. Data was collected using questionnaire adopted from previous studies to measure the relationships between the variables. Data was collected from 561 managerial and non-managerial employees of organizations related to informatics sector of Pakistan. Results of the study showed that self-esteem, extraversion, risk-taking propensity, generalized self-efficacy and proactive personality were significantly related to constructive deviance behaviors. Psychological empowerment mediated between the relationships of self-esteem and extraversion with constructive deviance behaviors. Result shows that conditional indirect effects of self-esteem and extraversion on constructive deviance behaviors through psychological empowerment (mediator) were significant at the low, average and high values of collectivist orientation (moderator). The study concluded that employee having collectivist orientation will less likely be involved in deviance behaviors.

Keywords: Constructive Deviance Behaviors, Psychological Empowerment, Collectivistic Orientation, Self-esteem, Extraversion.

Organizations are becoming performance oriented, decentralized and flexible day by day (Crant, 2000; Morrison, 2006) that's why employees also need to be innovative and creative in their professional work (Madjar, Greenberg, & Chen, 2011) due to which sometimes they deviate from the organizational norms and values. Deviating from the norms of the organizations may be destructive (Lee & Allen, 2002; Mitchell & Ambrose, 2007) but it can also prove to be beneficial for the organization (Galperin, 2012; Spreitzer & Sonenshein, 2004). Organizations have faced more loss and destruction due to denial of reality than they have faced due to incompetence. One should not avoid the already established rules and principles but when new realities emerges, they need new response plan, new strategies and new planning and modification in the already established rules to cope with them successfully.

This is a reality that the world has changed and is changing very rapidly, especially the "corporate world". Due to which, the corporate man (employee) is also changing and he knows that nothing is permanent and is continuously changing. The employee needs to understand the new emerging corporate realities and should be visionary and creative enough to redesign and reconstruct his future endeavors accordingly. In today's corporate world, employees need space, freedom and open hand to handle things their selves and take decisions and steps according to their own will because the corporate world has become so competitive that working according to the usual job description is not enough. Employees need to work beyond their usual job descriptions for the benefit of the organization. Consequently employees sometimes violate organizational norms, rules or policies which can have serious consequences for the employees and for the organization. But the behaviors due to which the norms of the organization are violated are not all destructive (Yildiz & Alpan, 2015). Some of these deviant behaviors are "constructive" which can have positive effects on the performance of employees and on the overall organizational performance.

The study was significant in the sense that due to globalization, new emerging technologies, creative and innovative ideas have put great pressure on organizations. Organizations are finding it very hard to survive in this severe competition and a survival of the fittest situation has been created. The situation of Pakistan is not exceptional; rather the situation of Pakistan is

worse as compared to other developing countries because the culture of Pakistani organizations is not according to the new desired organizational cultures where employees feel psychologically empowered and independent to do anything new and innovative according to their own will and understanding. The ranking of Pakistan on creativity is 111th according to Global Creativity Index, (2015), which shows that there are problems in Pakistani organizations which does not allow or give independence to the employees to be creative and innovative. Lack of Constructive deviance behaviors is definitely among the reasons for this low creativity because extensive literature shows that constructive deviance behaviors encourage and promote creativity and innovation (J. M. Howell & Higgins, 1990; Robbins & Galperin, 2010; Vadera, Pratt, & Mishra, 2013). Mostly the negative side of deviance behaviors has been the focus of the scholars (Örücü & Yildiz, 2014; Yildiz & Alpkın, 2015; Yildiz & Yildiz, 2015) but constructive deviance behaviours is comparatively less explored.

Various studies have explored the constructive deviance behaviours and has tested the relationship of constructive deviance behaviours with leader-member exchange (Tziner, Fein, Sharoni, Bar-Hen, & Nord, 2010), cultural factors (Galperin, 2003), personality traits (Big Five) (Bodankin & Tziner, 2009) and psychological ownership (Chung & Moon, 2011; Vandewalle, Van Dyne, & Kostova, 1995) but based on the gap analysis conducted in this study, most of the relationships taken in this study has not been explored before. Very few studies have been conducted on the constructive deviance behaviours in Pakistan. So the rational of the study was to create an awareness in Pakistan about deviance behaviours, that not all deviance behaviours are destructive, some are constructive and can prove to be useful in bringing creativity and innovation in the Pakistani organizations, and to close the gap in the area of constructive deviance behaviours and their relationship with the mentioned independent variables, mediators, moderators and dependent variables.

Objectives of the study

The major objective of the study was to develop an integrated model for testing the impact of employee characteristics (i.e. self-esteem, extraversion, general self-efficacy, risk-taking propensity and proactive personality) and psychological empowerment on constructive deviance behaviors. Other objectives of the study were to test the mediating role of psychological employment between employee characteristics (i.e. self-esteem, extraversion, general self-efficacy, risk-taking propensity and proactive personality) and constructive deviance behaviors, and to examine the moderating role of collectivist orientation on the relationship of psychological empowerment and constructive deviance behaviors. Moreover, the study was also intended to examine the moderation of collectivist orientation on the mediating role of psychological empowerment between the relationship of employee characteristics (self-esteem, extraversion, generalized self-efficacy, risk-taking propensity and proactive personality) and constructive deviance behaviors.

Literature Review

Employee Characteristics and Psychological Empowerment

Various Past studies have been conducted on the relationship of different employee characteristics with psychological empowerment. Extensive literature shows positive and significant relationship of Psychological empowerment with Self-esteem ((Gist & Mitchell, 1992; Spreitzer, 1995), Extraversion (Ford & Fottler, 1995; Rodriguez-Llewellyn, 2008), Risk-taking Propensity ((Block, 1987; Spreitzer & Quinn, 1996), Proactive Personality (Bateman & Crant, 1993; Crant, 2000) and with Generalized self-efficacy (Bandura, 1997; Conger & Kanungo, 1988). Literature review on the relationship of employee characteristics (i.e. self-esteem, extraversion, risk-taking propensity and generalized self-efficacy) and psychological empowerment has been presented below.

Self-esteem and Psychological Empowerment

According to Seibert et al. (2011) self-esteem influence the perceptions of psychological empowerment. Similarly Wei and Zhang (2006) reported that high self-esteem results in proactive orientation towards work and enhances the psychological empowerment of employees. Moreover, according to Judge and Hurst (2007), individuals with high self-esteem may seek out challenging roles and therefore select themselves into organizations or jobs that provide greater opportunity to experience empowered work. Hence, we hypothesis that:

H₁: Self-esteem is positively related to psychological empowerment.

Extraversion and Psychological Empowerment

Extrovert Individuals are highly talkative and social and shows great commitments towards activities and social groups (Erdheim, Wang, & Zickar, 2006) thus based on the argument of Ford and Fottler (1995) highly extrovert individuals are likely to feel empowered. Moreover, the study of Rodriguez-Llewellyn (2008) established a significantly positive relationship of extraversion with the all the four dimension of empowerment. Hence, we hypothesize that:

H₂: Extraversion is positively related to psychological empowerment.

Risk-taking Propensity and Psychological Empowerment

The self-determination construct of psychological empowerment gives people the feeling that they are in full control of their destiny, which gives them the potential to take risk (Spreitzer, De Janasz, & Quinn, 1999). According to Spreitzer and Quinn (1996) empowerment gives people the feeling that they can have a real impact on things and which gives them the reason to take responsibility, risk new behaviours. Empowered individuals embrace risk in difficult situations (Block, 1987). Hence we hypothesize that:

H₃: Risk-taking propensity is positively related to psychological empowerment.

Proactive Personality and Psychological Empowerment

An individual which is active and tries to change itself or its environment (Crant, 2000) and always tries to search for information and solutions and avail every opportunity. Studies have shown positive relationship of proactive personality with entrepreneurial intentions (Crant, 1996), personal achievements and extracurricular activities (Bateman & Crant, 1993). Perception of making a difference is pervasive among individuals having proactive personalities. Therefore, it is possible that individuals who have proactive personalities will be psychologically empowered. Hence, we hypothesize that:

H₄: Proactive personality is positively related to psychological empowerment.

Generalized self-efficacy and Psychological Empowerment

The study of Idrus, Alhabji, Al Musadieq, and Utami (2015) suggested that Psychological empowerment has positive relationship with self-efficacy. Similarly the meta-analytic study of Seibert, Wang, and Courtright (2011) reported that generalized self-efficacy trait of self-evaluation is positively related to psychological empowerment. Hence, we hypothesize that:

H₅: Generalized self-efficacy is positively related to psychological empowerment.

Employee characteristics and Constructive deviance behaviors

Extensive literature evidence shows that some of constructively deviant behaviors (e.g. voice behaviors, rule-breaking behaviors, individual creativity, whistle-blowing) have significant and positive relationship with Self-esteem (Liao, Liu, & Loi, 2010; Somech & Drach-Zahavy, 2000; Vadera et al., 2013; Van Dyne & LePine, 1998), Extraversion (Crant, Kim, & Wang, 2011; LePine & Van Dyne, 2001; Taggar, 2002; Vadera et al., 2013), Risk-taking propensity (Galperin, 2012; J. Howell, 1990; Madjar, Greenberg, & Chen, 2011; Morrison, 2006; Vadera et al., 2013), Proactive personality (Crant et al., 2011; Miceli, Near, Rehg, & Van Scotter, 2012; Vadera et al., 2013) and Generalized self-efficacy (Landau, 2009; Liao et al., 2010; Miceli et al., 2012; Speier & Frese, 1997; Tierney & Farmer, 2011; Walumbwa, Hartnell, & Oke, 2010; Withey & Cooper, 1989). Detailed literature review has been presented below:

Self-esteem and constructive deviance behaviors

Because of the comfortableness and confidence of people with high self-esteem with whom they are, they are more prone to violate norms, take initiative and show assertiveness than individuals having low self-esteem (Bandura, 1986). Similarly according to Van Dyne and LePine (1998), individuals having high self-esteem raise more voice behavior than those individuals who has low self-esteem. According to a longitudinal study of Liao et al. (2010) conducted on 828 employees from a multiple sources established positive relationship between high self-esteem and creative performance (also see (Tierney & Farmer, 2011)). Hence, we hypothesize that:

H₆: Self-esteem is positively related to constructive deviance behaviors.

Extraversion and Constructive deviance behaviors

Extraversion is the only trait among the big five personality traits which has a consistently positive relationship with constructive deviance. LePine and Van Dyne (2001) found positive relationship between extraversion and voice behavior. Similarly a study conducted by Crant et al. (2011) on voice behavior of students in the class room, established positive relationship between extraversion and voice behavior. Moreover, a positive relationship between extraversion and creativity has been found in the study of Taggar (2002).

Extraversion is associated with both destructive deviance and constructive deviance at both levels i.e. individual level and organizational level (Lee, Ashton & Shin, 2005). Hence, we hypothesize that:

H7: Extraversion has a positive relationship with constructive deviance behaviors.

Risk-taking Propensity and constructive deviance behaviors

Vadera et al. (2013) stated that self-esteem, risk-taking propensity, extroversion, proactive personality and transformational leadership all predict constructive deviance behaviours. The study of Madjar et al. (2011) found a positive relationship between risk taking and creativity. Studies have found positive relationship of risk taking propensity with constructive deviance (Galperin (2012) and innovative constructive deviance behaviors (Yildiz, Alpan, Ateş, & Sezen, 2015). Hence, we hypothesis that:

H8: Risk-taking propensity is positively related to constructive deviance behaviors

Proactive Personality and constructive deviance behaviors

Miceli, Van Scotter, Near, and Rehg (2001) found positive relationship between proactive personality and whistle-blowing. Similarly, a positive relationship has been found between proactive personality and voice behaviors in the study of According to Parker, Williams, and Turner (2006) various people treat proactive behaviors as extra-role behaviors and argued that individuals need to perform those behaviours which are beyond normal job descriptions. Dahling, Chau, Mayer, and Gregory (2012) reported significant positive relationship between pro-social rule breaking and deviance behaviors. Hence, we hypothesis that:

H9: Proactive personality is positively related to constructive deviance behaviors.

Generalized Self-Efficacy and Constructive deviance behaviors

An individual's belief about the efficacy of his actions was found to be positively associated to his internal intentions of whistle blowing (Park & Blenkinsopp, 2009). Similarly according to a longitudinal study of Withey and Cooper (1989), it was established that individual's confidence on his actions will result in expressing voice. Hence, we hypothesis that:

H10: Generalized self-efficacy is positively related to constructive deviance behaviors.

Psychological Empowerment and Constructive deviance behavior

Due to increase in global competition in recent times, interest in empowerment among research scholars has increased, which enables individuals to take risk and initiate and innovate things to fight highly uncertain environment (Block, 1987). Empowerment makes individuals to take initiative about their work and perform beyond what is expected from them in their work setting (Spreitzer, 2008; Thomas & Velthouse, 1990). Similarly according to psychologically empowered individuals exhibit more positive and constructive deviance behaviors (Spreitzer, 2008; Spreitzer & Sonenshein, 2004). Psychological empowerment is possibly associated with innovation (Spreitzer, 1995). Individuals with high psychological empowerment are more positive and show more involvement in constructive deviance behaviors such as organizational citizenship behavior (Spreitzer, 2008). Psychological empowerment is critically important for people to be able to engage in positive deviance (Spreitzer and Sonenshein (2004). It's a commonly known fact that our social system is designed to maintain the status quo and control through enforcing norms and values. While the basic ingredient to engage in positive deviance is to take risk and violate the norms and values. Hence, psychological empowerment is critically important for enabling individuals to engage in positive deviance.

H11: Psychological empowerment has a positive relationship with constructive deviance behaviors.

Psychological empowerment as mediating variable

Psychological empowerment has been examined as an antecedent in the study of Searle (2011) and reported significantly positive relationship proactive personality. Individuals with proactive personalities were highly psychologically empowered. The results of the study of Searle (2011) confirms the result of the study of (Spreitzer, 1995) which established positive relationship of psychological empowerment and other antecedents of proactive personality. Individuals with proactive personalities can cope with the change, search for opportunities (Crant, 2000). Moreover, the study of Searle (2011) also established mediating role of psychological empowerment between proactive personality and taking charge and individual innovation.

This study of Searle established full mediation of psychological empowerment between the relationship of proactive personality and taking charge, while partial mediation of psychological empowerment was reported between the relationship of proactive personality and individual innovation. As taking charge and innovation performance both are constructs of constructive deviance a behavior, that's why it is possible that psychological empowerment will mediate between proactive personality and constructive deviance behaviors as a whole as well. On the basis of literature, the following hypotheses have been made.

H12: Psychological Empowerment mediates the relationship of Self-Esteem and Constructive Deviance Behaviors.

H₁₃: Psychological Empowerment mediates the relationship of Extraversion and Constructive Deviance Behaviors.

H₁₄: Psychological Empowerment mediates the relationship of Risk-taking Propensity and Constructive Deviance Behaviors.

H₁₅: Psychological Empowerment mediates the relationship of Proactive Personality and Constructive Deviance Behaviors.

H₁₆: Psychological Empowerment mediates the relationship of Generalized Self-Efficacy and Constructive Deviance Behaviors.

Moderating role of collectivist orientation between the relationship of psychological empowerment and constructive deviance behaviors

Individuals with collectivistic orientation strictly follow the norms and values of the organization. Collectivists consider following the policies, rules and regulations of the organization as their duty and obligation. Moreover, individuals with collectivist orientation do prefer separate themselves from their group through competing with their in-group members (Kitayama, Markus, & Lieberman, 1995) and focus on good interpersonal relationship with the members of their group (Kim, Triandis, Kâğıtçıbaşı, Choi, & Yoon, 1994). So there is possibility that collectivist orientation will be negatively related to constructive deviance behaviour because constructive deviance behaviours are against the policies and norms of the organization. But, some studies suggest positive relationship between collective orientations with some of the constructs of constructive deviance behaviors. For example, according to Cho and Faerman (2010b) collectivist orientation has a positive relationship with extra-role behaviors because cultural contexts affect extra-role behavior (Organ, Podsakoff, & MacKenzie, 2005). Cho and Faerman (2010b) established that collectivist orientation moderates the relationship of psychological empowerment and extra-role behaviours. In support of this argument, Organ et al. (2005) argue that, in collectivist cultures, organizational citizenship behaviour is considered as a requirement of their jobs.

Similarly, according to Love and Dustin (2014) collectivist orientation has a positive relation with taking charge. So it was desirable to test the moderating effect of collectivist orientation on the relationship of psychological empowerment and constructive deviance behaviors.

H₁₇: Collective Orientation negatively moderates the relationship of Psychological Empowerment and Constructive Deviance Behaviors.

H₁₈: Collectivist Orientation negatively moderates the mediational role of Psychological Empowerment between Self-Esteem and Constructive Deviance Behaviors.

H₁₉: Collectivist Orientation negatively moderates the mediational role of Psychological Empowerment between Extraversion and Constructive Deviance Behaviors.

H₂₀: Collectivist Orientation negatively moderates the mediational role of Psychological Empowerment between Risk-taking Propensity and Constructive Deviance Behaviors.

H₂₁: Collectivist Orientation negatively moderates the mediational role of Psychological Empowerment between Proactive Personality and Constructive Deviance Behaviors.

H₂₂: Collectivist Orientation negatively moderates the mediational role of Psychological Empowerment between Generalized Self-efficacy and Constructive Deviance Behaviors.

Gap identification

The conceptual framework of the study shows the antecedents of constructive deviance behaviours. Much work has been done on destructive deviance behaviour (Örücü & Yıldız, 2014; Yıldız & Alpkın, 2015; Yıldız & Yıldız, 2015) but research work on constructive deviance behaviour is almost zeroed as compared to destructive deviance behaviour. Moreover, according to Galperin (2012) despite the importance of constructive deviance in the workplace, there is lack of empirical research in this area. So this study was intended to make a significant contribution in literature of constructive deviance behaviour through empirically testing the relationships of the variables. Moreover, the relationships of variables in the study were new and had not been tested before. Therefore, this study was intended to fill this gap and make a significant contribution in the body of knowledge on the topic of constructive deviance behaviours.

The relationship of variables in the current study either: i) have empirical support in the existing literature. ii) have explicit theoretical support but no empirical support. iii) have neither explicit theoretical support nor empirical support but have implicit theoretical support to support the logic of the relationship. Please refer to Table 1.

Table 1. *Gap Analysis*

| Antecedents | Mediators | Moderators | Dependent variables | Empirical support | Explicit theoretical support | Implicit theoretical support |
|---------------------------|---------------------------|--------------------------|----------------------------------|-------------------------|------------------------------|--|
| Extraversion | Psychological empowerment | - | Constructive deviance Behaviours | - | - | Crant et al. (2011); LePine and Van Dyne (2001); Taggar (2002) Van Dyne and LePine (1998); |
| Self-worth | Psychological empowerment | - | Constructive deviance Behaviours | - | - | Liao et al. (2010) Madjar et al. (2011); Morrison (2006) |
| Risk-taking propensity | Psychological empowerment | - | Constructive deviance Behaviours | - | - | Crant et al. (2011); Miceli et al. (2001) |
| Proactive Personality | Psychological empowerment | - | Constructive deviance Behaviours | - | - | Park and Blenkinsopp (2009); Withey and Cooper (1989) |
| Generalized self-efficacy | Psychological empowerment | - | Constructive deviance Behaviours | - | - | |
| Psychological empowerment | - | Collectivist orientation | Constructive deviance Behaviours | Cho and Faerman (2010a) | - | - |

So from table 1, it is clear that all the linkages or relationships between variables had just been implicitly mentioned and had no empirical or explicit literature support, except the relationship of “psychological empowerment, collectivist orientation, and constructive deviance behaviours” BUT, in this study psychological empowerment has been used as a mediating variable while collectivist orientation has been used as a moderating variable. Moreover, the research recommendations of various studies about these relationships have been presented in table 2.

Table 2. *Research recommendations from Past Research Papers*

| Relationships | Author(s) | Journal | Journal Impact Factor |
|--|--|--|--|
| Mediating role of psychological empowerment between the relationship of employee characteristics and constructive deviance behaviours. | Vadera et al. (2013) | Journal of Management | Impact Factor: 6.862 |
| Moderating role of collectivist orientation in the relationship of psychological empowerment and constructive deviance behaviours | Cho and Faerman (2010a) Yildiz, Alpan, Ateş, & Sezen, | Public Management Review International Business | Indexed in Thomson Reuters Impact Factor |

So all the relationships in the above theoretical model were new and had not been tested before and were recommended in other studies. Therefore, this study was intended to fill this gap and make a significant contribution in the body of knowledge on the topic of constructive deviance behaviours.

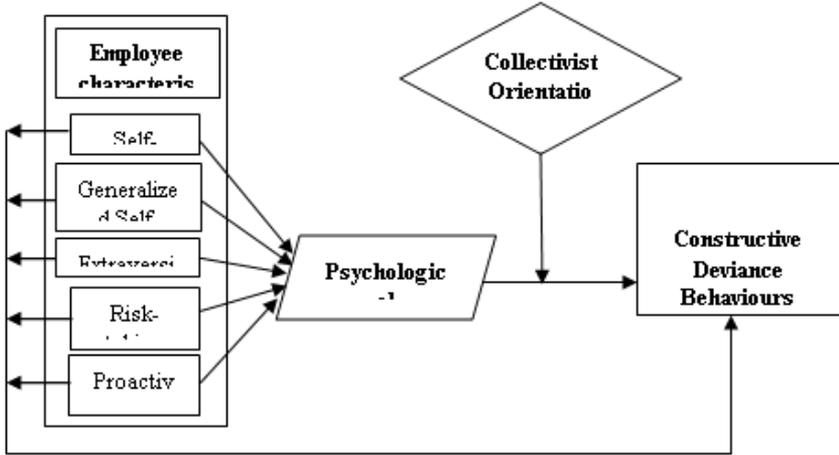


Figure 1. Conceptual Framework

Research Methodology

Research Design

The study was intended to test the developed hypothesis, analyze the quantitative data gathered to establish causal relationships between variables and to contribute in the existing body of knowledge in the area of CDB. The nature of the study was cross sectional and the data were collected once to test the hypothesis of the study.

Population and sample size

The population frame of the study includes the employees working on all the managerial and non-managerial positions of Informatics sector (containing software houses). The population of the study was selected on the premise that employees related to software engineering, web-designing, computer graphics and animations, computer equipment, internet web page design etc. needs to be innovative, creative and flexible, which sometimes needs violating the norms and values of the organization for its wellbeing and betterment that's why there are more chances of exhibiting constructive deviance behaviors by them. Moreover, taking charge, extra role behaviors and other constructive deviance behaviors are expected from them. Yildiz et al. (2015) suggested that data should be collected from employees of informatics sector because creativity, innovation flexibility and constructive deviance behaviors are required from them. According to Sekaran and Bougie (2016) sample size of the study should be 10 times or more the number of variables included in the study. Therefore, a total of 561 questionnaires were received out of total 650 distributed with a response rate of 86%.

Sampling technique

Two-stage Cluster sampling technique has been used to select the sample. The population was first divided into heterogeneous groups called as clusters and then some of the groups were selected by SRS method, and then some of the units/elements of the selected groups are sampled by SRS method.

The total population of the study was the informatics companies i.e. software companies/houses of Islamabad and Rawalpindi. Software companies were selected from five technology parks located in Islamabad and Rawalpindi (which are named as: KSL software technology park, Awami markaz software technology park, Rose centre software technology park and Meridian software technology park) and from companies registered on Pakistan Software Export Board (PSEB). The whole population of companies were divided into clusters. All the clusters made were heterogeneous as possible having units/elements from software development, graphics designing, network engineers, computer systems analysis, IT security and web developing.

After making the clusters, then according to simple random method, cluster 1 and cluster 3 were selected for sampling and the data was eventually collected from these clusters.

Instrument Used for Data Collection

Instruments/questionnaires of different variables have been adapted from different studies and the response format for all instruments was a seven-point Likert scale.

Constructive deviance Behaviors. The Instrument of constructive deviance behaviors has been adapted from Galperin (2012). A sample among nine items scale was “Bent a rule to satisfy a customer’s needs”.

Collectivist Orientation. A seven items scale of collectivist orientation has been adapted from Robert and Wasti (2002). A sample item of the scale was “Employees are taken care of like members of a family”.

Generalized Self-Efficacy. The generalized self-efficacy scale that consisted of eight items, has been adapted from Chen, Gully, and Eden (2001). A sample item of the scale was “When facing difficult tasks, I am certain that I will accomplish them”.

Self-Esteem. The self-efficacy scale which consisted of ten items, has been adapted from Rosenberg (2015). A sample item of the scale was “On the whole, I am satisfied with myself”.

Risk-Taking Propensity. The risk-taking propensity scale consisted of seven items, has been adapted from Meertens and Lion (2008). A sample item of the scale was “I do not take risks with my health (R)”.

Extraversion. The extraversion scale consisted of ten items has been adapted from Goldberg (1992). A sample item of the instrument was “Talk to a lot of different people at parties”.

Proactive Personality. The scale of proactive personality has been adapted from Seibert, Crant, and Kraimer (1999) and was consisted of ten items. A sample item of the instrument was “If I see something I don’t like, I fix it”.

Psychological Empowerment. The psychological empowerment scale consisted of twelve items that has been adapted from Spreitzer (1995). A sample item of the instrument was “The work I do is very important to me”.

Data Analysis and Discussion

Confirmatory factor analysis

Table 3 shows the confirmatory factor analysis results and shows all the constructs of the model with their respective loadings, cronbach’s alpha values, composite reliability values and the values of average variance extracted.

Table 3 *Confirmatory Factor Analysis*

| Construct | Indicators | Loadings | Cronbach’s Alpha | C.R | AVE |
|---------------------------|------------|----------|------------------|-------|-------|
| Extraversion | EXT1 | .624 | 0.846 | 0.846 | 0.540 |
| | EXT2 | .593 | | | |
| | EXT3 | .603 | | | |
| | EXT4 | .696 | | | |
| | EXT5 | .681 | | | |
| | EXT6 | .670 | | | |
| | EXT7 | .634 | | | |
| Psychological Empowerment | PE1 | .789 | 0.850 | 0.855 | 0.503 |
| | PE2 | .798 | | | |
| | PE3 | .507 | | | |
| | PE4 | .707 | | | |
| | PE5 | .757 | | | |
| | PE8 | .505 | | | |
| Collectivist Orientation | CO1 | .644 | 0.761 | 0.762 | 0.545 |
| | CO2 | .689 | | | |
| | CO3 | .684 | | | |
| | CO5 | .693 | | | |
| Risk-taking Personality | RTP1 | .775 | 0.836 | 0.841 | 0.574 |
| | RTP2 | .796 | | | |
| | RTP3 | .713 | | | |

| | | | | | |
|---------------------------------|------------|------|-------|-------|-------|
| Proactive Personality | RTP5 | .780 | | | |
| | PP1 | .738 | 0.867 | 0.864 | 0.576 |
| | PP2 | .713 | | | |
| | PP3 | .842 | | | |
| | PP4 | .777 | | | |
| Constructive Deviance Behaviors | PP5 | .775 | | | |
| | CDB1 | .585 | 0.925 | 0.926 | 0.584 |
| | CDB2 | .598 | | | |
| | CDB3 | .801 | | | |
| | CDB4 | .647 | | | |
| | CDB5 | .787 | | | |
| | CDB6 | .793 | | | |
| | CDB7 | .775 | | | |
| | CDB8 | .815 | | | |
| Generalized Efficacy | CDB9 | .786 | | | |
| | Self-GSE01 | .739 | 0.852 | 0.856 | 0.600 |
| | GSE02 | .764 | | | |
| | GSE03 | .839 | | | |
| Self-Esteem | GSE04 | .780 | | | |
| | SE01 | .764 | 0.808 | 0.816 | 0.600 |
| | SE02 | .788 | | | |
| | SE04 | .714 | | | |

Discriminant and Convergent validity

Discriminant validity determines whether a construct does not correlate too highly with measures with which it is expected to be different to (Churchill, 1999). Or in other words, it is the determination of the degree to which measurements of the model vary from each other. The discriminant validity issues were resolved by deleting all those factors which were more correlated with other measures than its own measure. Similarly convergent validity is “the degree to which multiple methods of measuring a variable provide the same results” (O’Leary-Kelly and Vorkurka, 1998, p. 399). For convergent validity to be established, all the values of AVE (Average Variance Extracted) are acceptable and are greater than its threshold value of 0.5 as shown in table 3.

Cronbach’s alpha statistics was used to further examine the reliability of constructs. According to Bernstein and Nunnally (1994) the acceptable threshold to establish reliability of constructs is 0.70. From Table 3, it is quite evident that the Cronbach’s alpha values of all the constructs ranged from 0.756 to 0.925, which were all in the acceptable range and established the reliability of all the constructs.

Correlation among Constructs

Table 4 shows the correlation among the constructs and proves that all the constructs were significantly correlated with each other. None of the correlation values was found more than 0.80, hence there is no problem of multicollinearity. Hair, Black, Babin, Anderson, and Tatham (2009) argued that correlation value exceeding 0.80 creates problem of multicollinearity and value more than 0.90 must be examined.

Table 4. Correlation

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|---|
| Constructive Deviance Behaviours | 1 | | | | | | | |
| Self-Esteem | .366** | 1 | | | | | | |
| Extraversion | .541** | .552** | 1 | | | | | |
| Risk-taking Propensity | .420** | .279** | .422** | 1 | | | | |
| Proactive Personality | .464** | .299** | .384** | .504** | 1 | | | |
| Generalized Self-Efficacy | .369** | .428** | .446** | .310** | .272** | 1 | | |
| Psychological Empowerment | .495** | .470** | .601** | .292** | .269** | .327** | 1 | |
| Collectivist Orientation | .588** | .431** | .534** | .334** | .382** | .444** | .501** | 1 |

Structural Model

For testing the mediating effect of Psychological empowerment between the relationship of Self-Esteem, Extraversion, Risk-taking Propensity, Proactive Personality, Generalized Self-Efficacy and Constructive Deviance Behaviors, the method of Structure Equation Modeling (SEM) has been used. Due to problem with the values of goodness of fit indices of the model, modification indices have been done to improve the values of goodness of fit indices as suggested by Saris, Satorra, and Van der Veld (2009) and Whittaker (2012). In modification indices, the error terms with the highest values of the same construct were correlated, after which the model fitness improved as evident from the values of indices in the table 5. The structural model has been presented in Figure 2.

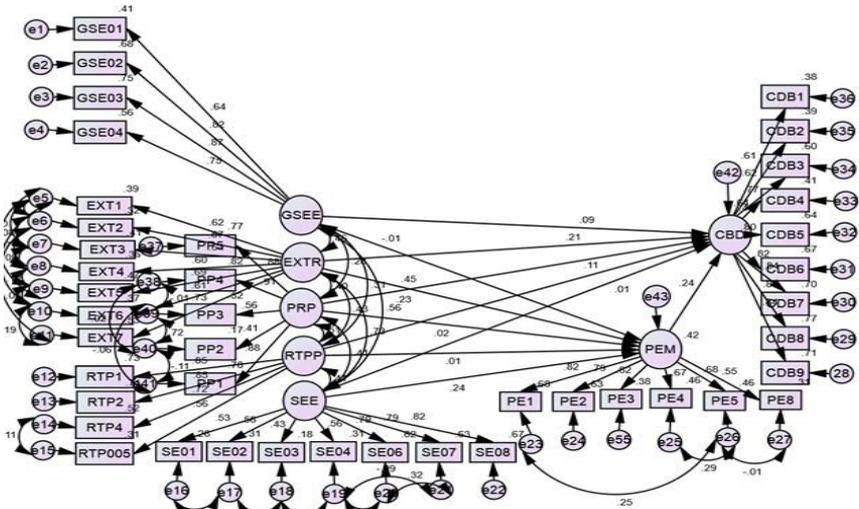


Figure 2. Structural Model

Model fitness of Structural Model after Modification indices

Table 5 shows the goodness of fit indices of the structural model after modification indices and has shown improvement after modification indices. The value of CMIN/DF was 2.799 which is inside the range of 1 and 3 as recommended by (Hair et al., 2009). Values of GFI=0.846, AGFI=0.820 are somewhat below the recommended level of 0.90, but the different was not too high and has marginal acceptability (Hair et al., 2009). Moreover, the values of CFI=0.900 and RMSEA=0.057 all were in acceptable range of values as suggested by Hair et al. (2009).

Table 5. Goodness of fit indices

| GOF indices | Values | Recommended threshold value | Adequacy |
|------------------------|--------|-----------------------------|----------|
| χ^2 | 2160 | | |
| d.f | 772 | | |
| $\chi^2/d.f$ (CMIN/DF) | 2.799 | 1 to 3 | Good |
| GFI | 0.846 | 0.90 | Marginal |
| AGFI | 0.820 | 0.90 | Marginal |
| CFI | 0.900 | >0.90 | Good |
| RMSEA | 0.057 | <0.08 | Good |

Source: Hair et al. (2009)

Table 6. Standard Regression, Direct/Indirect Effect

| Hypothesis # | Relationship (s) | Estimate (β) | P Value | Significance | Hypothesis Supported/Not supported |
|--------------|------------------|----------------------|---------|--------------|------------------------------------|
|--------------|------------------|----------------------|---------|--------------|------------------------------------|

| Standardized Direct Effect | | | | | | |
|-------------------------------------|-------------|---------|-------|---------------|---------------|--|
| H1 | PE<--- SE | .327** | 0.001 | Significant | Supported | |
| H2 | PE<--- EXT | .410** | 0.001 | Significant | Supported | |
| H3 | PE<--- RTP | .049 | 0.464 | Insignificant | Not Supported | |
| H4 | PE<--- PP | .049 | 0.380 | Insignificant | Not Supported | |
| H5 | PE<--- GSE | .033 | 0.588 | Insignificant | Not Supported | |
| H6 | CDB<--- SE | 0.076 | 0.262 | Insignificant | Not Supported | |
| H7 | CDB<--- EXT | 0.196** | 0.005 | Significant | Supported | |
| H8 | CDB<--- RTP | 0.137** | 0.045 | Significant | Supported | |
| H9 | CDB<--- PP | 0.263** | 0.001 | Significant | Supported | |
| H10 | CDB<--- GSE | 0.105 | 0.074 | Insignificant | Not Supported | |
| H11 | CDB<--- PE | 0.245** | 0.001 | Significant | Supported | |
| Standardized Indirect Effect | | | | | | |
| H12 | CDB<--- SE | 0.086** | 0.000 | Significant | Supported | |
| H13 | CDB<--- EXT | 0.107** | 0.000 | Significant | Supported | |
| H14 | CDB<--- RTP | 0.013 | 0.385 | Insignificant | Not Supported | |
| H15 | CDB<--- PP | 0.013 | 0.314 | Insignificant | Not Supported | |
| H16 | CDB<--- GSE | 0.009 | 0.516 | Insignificant | Not Supported | |

Note. *p < 0.05. CBS: Constructive Deviance Behaviors, PE: Psychological Empowerment, SE: Self-Esteem, EXT: Extraversion, GSE: Generalized Self-Efficacy, PP: Proactive Personality, RTP: Risk-taking Propensity.

Standardized Parameter Estimates (Mediation Results)

The standardized direct effect values shown in table 6 shows that EXT (Extraversion) had a positive and significant impact with beta values of 0.410 on PE (Psychological Empowerment) and 0.107 on CDB (Constructive Deviance Behaviors). This means that a change of 1 standard deviation in EXT will result in 0.410 deviations in PE and 0.107 deviations in CDB. Similarly SE (Self Esteem) had a positive and significant impact of 0.327 on PE (Psychological Empowerment), and a 1 standard deviation change in SE will result in 0.327 deviations in PE, while the SE had an insignificant impact on CDB. Other than this all the remaining constructs viz-a-viz GSE (Generalized Self-Efficacy), RTP (Risk-taking Propensity) and PP (Proactive Personality) had insignificant impact on PE (Psychological Empowerment) and CDB (Constructive Deviance Behaviors). PE (Psychological empowerment) also had a significant impact on CDB.

Only SE (Self-Esteem) and EXT (Extraversion) had a positive and significant indirect standardized effect on CDB (Constructive Deviance Behaviors). The indirect impact of SE on CDB was 0.086, while the indirect effect of EXT on CDB was 0.107, the p-values of both of which were less than 0.05. So this means that PE (Psychological Empowerment) mediated between the relationship of SE and CDB and the relationship of EXT and CDB because the p value of the indirect effect of SE and EXT on CDB through PE were less than 0.05 as evident in the table 10. The type of mediation between SE and CDB was full mediation because the direct relationship between SE and CDB (Path c) became insignificant with beta value of 0.076 with its p value of 0.262 which is greater than 0.05, while type of mediation between EXT and CDB is partial mediation because the standardized direct effect of EXT on CDB was still significant. However, according to Preacher & Hayes (2007), to establish mediation, the indirect path should be significant. If the indirect path is significant, there is no need to focus on the direct path as these scholars does not talk about partial mediation.

Other than SE and EXT, all the other constructs i.e. GSE (Generalized Self-Efficacy), RTP (Risk-taking Propensity) and PP (Proactive Personality) had no relationship with the mediating variable PE (Psychological Empowerment) as the p-values of their direct effect on PE were greater than 0.05 and were all insignificant. So PE did not mediate between GSE, RTP, PP and CDB because these constructs were not significantly related with PE as shown in Table 6.

Conditional Process Analysis (Moderated Mediation results)

The results of moderated mediation have been presented in table 7. However, there are two places in the model where moderated mediation occurs i.e. the moderating effect of CO on the mediational effect of PE on the relationship of SE and CDB and the moderating effect of CO on the mediational effect of PE on the relationship of EXT and CDB.

Table 7. *Moderated Mediation (conditional process analysis)*

| Relationship | Effect | SE | LLCI | ULCI | t | p |
|---|---------------------------|---------------|---------------|-----------------|-----------------|------|
| CDB<---SE | .151 | .041 | .068 | .233 | 3.615 | .000 |
| CDB<---PE | .664 | .120 | .428 | .899 | 5.530 | .000 |
| CDB<---CO | .755 | .129 | .500 | 1.011 | 5.816 | .000 |
| CDB<--- Int_1 (PE×CO) | -.089 | .025 | -.1396 | -.039 | -3.495 | .000 |
| CDB<---EXT | .258 | .044 | .170 | .346 | 5.748 | .000 |
| CDB<---PE | .579 | .119 | .344 | .814 | 4.847 | .000 |
| CDB<---CO | .703 | .128 | .451 | .955 | 5.481 | .000 |
| CDB<--- Int_1 (PE×CO) | -.081 | .025 | -.130 | -.031 | -3.221 | .001 |
| Direct Effect | | | | | | |
| CDB<---SE | .151 | .041 | .068 | .233 | 3.615 | .000 |
| CDB<---EXT | .258 | .044 | .170 | .346 | 5.748 | .000 |
| Indirect Effect at the values of the moderator | | | | | | |
| | CO (Moderator) | Effect | BootSE | BootLLCI | BootULCI | |
| SE-->PE--> CDB | 3.500 | .176 | .034 | .110 | .242 | |
| | 4.750 | .120 | .028 | .066 | .177 | |
| | 6.000 | .064 | .034 | .001 | .135 | |
| EXT-->PE--> CDB | 3.500 | .171 | .036 | .100 | .241 | |
| | 4.750 | .112 | .029 | .056 | .172 | |
| | 6.000 | .053 | .036 | -.016 | .127 | |

Note. *p < 0.05. LLI: Lower Limit Confidence Interval, ULCI: Upper Limit Confidence Interval

Table 7 shows the moderated mediation results, which shows that SE and EXT (Independent Variables), PE (Mediating Variable) and CO (Moderating Variable) all had a significant impact on CDB (Dependent Variable) with t-values greater than 2 and p-values less than 0.05. The results of the interaction term i.e. Int_1 (PE×CO) also had a significant but negative impact with beta value of -0.089, t-value of -3.495 and p-value of 0.000 for SE (Self-esteem) and beta value of -0.081, t-value of -3.221 and p-value of 0.001 for EXT (Extraversion) respectively, which shows that CO (Collectivist Orientation) negatively moderates (weakens) the relationship of PE (Psychological Empowerment) and CDB (Constructive Deviance Behaviors) for both independent variables of self-esteem and extraversion.

For establishing moderated mediation, the indirect effect at the values of moderator in Table 7 shows that the moderator (CO) negatively moderates the mediational effect of PE between the relationship of SE (Self Esteem) and EXT (Extraversion) and CDB. For Self-esteem the indirect effect at the values of moderator shows that the indirect effect i.e. beta values reduces from 0.176 to 0.120 and to 0.064 with the increasing moderator (CO) values of 3.5, 4.7 and 6.0 respectively. Similarly for Extraversion the indirect effect at the values of moderator shows that the indirect effect i.e. beta values reduces from 0.171 to 0.112 and to 0.053 with the increasing moderator (CO) values of 3.5, 4.7 and 6.0 respectively. Hence, H17, H18 and H19 were accepted while H20, H21 and H22 were rejected as risk-taking propensity, generalized self-efficacy and proactive personality were not correlated with psychological empowerment, and that's why psychological empowerment did not mediate between their relationship with constructive deviance behaviors.

Discussion and Conclusion

The main objectives of the current study were to examine the mediating role of psychological empowerment between the relationship of variables (i.e. self-esteem, extraversion, risk-taking propensity, generalized self-efficacy and proactive personality) with constructive deviance behaviors and to examine the moderating role of collectivist orientation between the relationship of psychological empowerment and constructive deviance behaviors. Moreover, the moderating role of collectivist orientation between the mediational role of psychological empowerment between variables (Self-esteem, Extraversion, Proactive Personality, Generalized Self-Efficacy and Risk-taking Propensity) and Constructive deviance behaviors has been tested.

The results of the study shows that psychological empowerment mediates between Self-Esteem and Constructive Deviance Behaviors which indicates that individuals having high self-esteem have high level of psychological empowerment which gives them the courage to engage in constructive deviance behaviors for the wellbeing of the organization. Only implicit theoretical support was found in previous study (Van Dyne & LePine, 1998) which suggested the mediational role of psychological empowerment between the relationship of self-esteem and constructive deviance behaviors. Similarly, psychological empowerment also mediates between extraversion and constructive deviance behavior and indicates that individuals who are extrovert, expressive and sociable have high psychological empowerment and are therefore more ready to engage in constructive deviance behaviors. Only implicit theoretical support was found in previous studies (e.g. Van Dyne & LePine, 1998; Taggar, 2002); (Crant et al., 2011) which suggested the mediational role of psychological empowerment between the relationship of extraversion and constructive deviance behaviors.

Collectivistic orientation negatively moderates the relationship of psychological empowerment and constructive deviance behaviors which supports the result of Cho and Faerman (2010b) which also established that collectivist orientation negatively moderates the relationship of psychological empowerment and constructive deviance behaviors. Collectivistic orientation negatively moderates the mediational effect of psychological empowerment between variable (Self-esteem and Extraversion) and Constructive deviance behaviors. The reason for this negative moderation is that collectivist strongly embrace organizational norms and strictly follow organizational rules, regulations and policies and that's why the mediational effect of psychological empowerment decreases with the every decreasing value of the moderator i.e. collectivist orientation in the conditional process analysis. No explicit theoretical support on the moderating effect of collectivistic Orientation on mediational role of psychological empowerment between the relationship of extraversion and constructive deviance could be found to check for comparison of the results of moderating effect of Collectivist Orientation on the mediational role of psychological empowerment between the relationship of extraversion and constructive deviance of the current study.

Scholars such as Judd and Kenny (1981) and Baron and Kenny (1986) were the early scholars who discussed the concept of moderated mediation but James and Brett were the first who introduced the term of “moderated mediation” in 1984. More comprehensive work on the methodology of conducting the analysis of moderated mediation or mediation moderation was provided by recent scholars such as Langfred (2004); Muller, Judd, and Yzerbyt (2005); Edwards and Lambert (2007); Preacher, Rucker, and Hayes (2007); Hayes (2017) and Hayes and Preacher (2013). Moreover, the term conditional process analysis was first used by Hayes (2017), and (Hayes and Preacher (2013)), and used Structure Equation Modeling (SEM) for the analysis of moderated mediation and mediated moderation.

Conclusion

Results of the study shows that Extraversion, Risk-taking propensity and Proactive-personality had a significant and positive impact on constructive deviance behaviors. Results also shows that psychological empowerment mediates the relationship of self-esteem and constructive deviance behavior because the more the individual has self-esteem/self-worth; the more he will be psychologically empowered which will give him the confidence of engaging in constructive deviance behaviors. However, collectivist orientation buffers the mediational effect of psychological empowerment on the relationship of self-esteem and constructive deviance behaviors because collectivist individuals prefer to behave according the norms and values of the organization and do not engage in deviance behaviors as they violate the organizational norms, policies and values. So in the presence of collectivist orientation, psychological empowerment will less likely result in the performance of constructive deviance behaviors even if the individual has a high self-esteem. Similarly, the result of the study also confirms that collectivist orientation reduces the mediational role of psychological empowerment between the relationship of extraversion and constructive deviance behaviors.

Contributions of the study

As discussed before, the positive side of deviance behaviors has been less explored as compared to destructive deviance behavior so far, that’s why as a whole the study contribute significantly in the body of knowledge on the subject of constructive deviance behaviors and the antecedents of constructive deviance behaviors. Specifically, the study contributed by testing the relationship of employee characteristics (i.e. self-esteem, extraversion, proactive personality, risk-taking propensity and generalized self-efficacy) and constructive deviance behaviors and the mediating role of psychological empowerment between them.

The study also contributes by testing the moderating role of collectivist orientation on the mediational effect of psychological empowerment between the relationships of employee characteristics (i.e. self-esteem, extraversion, proactive personality, risk-taking propensity and generalized self-efficacy) and constructive deviance behaviors through the method of conditional process analysis. The study also contributed by conducting the study on the topic of constructive deviance behaviors in Pakistani context where deviance behaviors whether positive or negative are not welcomed and are discouraged. Moreover, Pakistan being a collectivistic country, and organizations having collectivistic orientation, it was equally important to test whether employee characteristic (i.e. self-esteem, extraversion, proactive personality, risk-taking propensity and generalized self-efficacy) would lead to constructive deviance behaviors thought psychological empowerment, in the presence of collectivistic orientation in the organizations?

The study contributes by closing the literature gap on the subject matter of constructive deviance behaviors and by empirically testing the relationship between employee characteristics (i.e. self-esteem, extraversion, proactive personality, risk-taking propensity and generalized self-efficacy) and constructive deviance behaviors, mediating role of psychological empowerment between them, the moderating role of collectivistic orientation between psychological empowerment and constructive deviance behaviors and the moderating effect of collectivistic orientation on the mediational role of psychological empowerment between the relationship of employee characteristics (i.e. self-esteem, extraversion, proactive personality, risk-taking propensity and generalized self-efficacy) and constructive deviance behaviors.

Research limitations and future research recommendations

Other than the limitations of time and cost, the study has been conducted in only one industrial setting i.e. software houses. The present study can be conducted in other industrial settings such as banking, telecommunication and other governmental institutions etc. The population of the study included the software houses operating only in the twin cities of Rawalpindi and Islamabad and can be conducted in other cities to increase the generalizability of the research instrument. The study is cross-sectional in nature and could be conducted by

collecting data in multiple different times as longitudinal studies produce more meaningful results. Other limitation of the study is collecting the data through a self-report research instrument, which could lead to a single method bias. However, future studies should collect data from multiple sources. The constructive or positive side of deviance behavior has been under-explored scholars as compared to the negative side of deviance behavior that's why more research work is needed in this area. Moreover, more antecedents (like networking, building coalition) and consequences of constructive deviance behaviors are also required to be examined in future studies.

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