

Linking Self Efficacy and Workplace Spirituality in IT (Information Technology) Industry using Structural Equation Modelling

Gaurav Tiwari^{*}, Shalini Srivastava¹ and Prachi Pathak²

¹Research Scholar, School of Management, Doon University, Dehradun - 248001, Uttarakhand, India;

gaurav_tiwari08@yahoo.co.in, shalini.srivastava1510@gmail.com

²Assistant Professor, School of Management, Doon University, Dehradun 248001, Uttarakhand, India; ppant78@gmail.com

Abstract

Business scenario is changing rapidly nowadays and competition is increasing both, internally and externally in organization due to globalization, workload and mergers and acquisitions. To sustain and overcome, it is inevitable for organizations to have delighted, focused, self motivated and self directed employees. But organizations in present time are filled with employees having low inner zeal and diluted compassion. These employees are not finding meaning in work and don't feel connected to their work at the same time. It is now a herculean task for organization to enhance and improvise employees' self efficacy and workplace spirituality. This paper investigates and validates the conceptualized linkage between self efficacy and workplace spirituality in IT industry using advanced analytic techniques. Confirmatory factor analysis and structural equation model was applied for hypothesis testing. The result indicates a significant positive linkage between workplace spirituality and self efficacy with age and experience as moderator. This study attempts to provide an idea to the organization to enhance employee's efficacy through increased workplace spirituality and a conceptual idea also for frequently changing environment.

Keywords: Confirmatory Factor Analysis, Experience, Self-Efficacy, Workplace Spirituality

1. Introduction

Modern business environment is characterized by high volatility and uncertainty. The competition is cut throat and it requires aggressiveness and sustainability. To deal with the rapidly changing organizational environment (internal & external both) theorists have given contingency theory. Contingency theory is an approach to the study of organizational behavior in which explanations are given as to how contingent factors such as technology, culture and the external environment influence the design and function of organizations (Islam & Hu, 2012)¹⁵. Organizations like IT companies, who are dominated by self-managed teams, are facing crude challenges to facilitate harmony between superior-subordinate relationships. Employees are in dilemma whether to go for task

orientation or for relationship orientation. The power balance between superior and subordinate are now in very crucial stage. Both organizations and employees are striving hard to overcome the issues in the time of uncertainty. Enhanced self-efficacy could be a possible solution as it helps to trust in one's own capabilities and skills in times. Now the question is how to enhance the self-efficacy (SE) in individuals which is a very individual-specific behavior. Workplace spirituality (WPS) can enhance the self-efficacy in positive direction as it enables one's own potential. In present scenario the amalgamation of self-efficacy with workplace spirituality could help organizations and individuals to overcome contingencies. Thus, the aim of the paper is to link self efficacy and workplace spirituality and this study attempts to find out the impact of age and experience on SE.

^{*} Author for correspondence

2. Literature Review

2.1 Self Efficacy

Bandura (1986)⁶ was the first who define self-efficacy (SE) as an individual's confidence in his/her skills and abilities to achieve the goals. Bandura and Wood (1989)⁷ said that a sturdy sense of personal efficacy (own skill and ability) is the key of success in many area to keep the inevitable focus on productivity and a constant effort to achieve goals. Bandura (1997) have mentioned four sources of SE and term them as (1) mastery experience (2) vicarious experience (3) verbal or social persuasion and (4) physiological arousal or emotional state. It is the ultimate self confidence of an individual in his capabilities in tasks performance beyond traditional boundaries (Axtel & Parker 2003)². Earlier studies in the information systems domain have found that individual variables such as SE perceptions influence decisions about what behaviors to undertake (Bandura, 1977b⁸ & Betz et al, 1981)^{5,9}. A software professional loses his sources of information and his social support and these in turn affect his SE and outcome expectations (Chiravuri et al., 2003)¹⁰.

2.2 Workplace Spirituality

Ashmos and Duchon (2000)¹ define workplace spirituality (WPS) as "the recognition that employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community". Fry (2003)¹⁴ notes that workplace spirituality aspects cannot be over looked by future organizations. Kinjerski & Skrypnek (2006)¹⁸ in their work, have given the four dimensions of WPS; (1) engaging work, a belief that one is engaged in meaningful work that has a higher purpose; (2) a spiritual connection, a sense of connection to something larger than self; (3) a sense of community, a feeling of connectedness to others and common purpose; and (4) a mystical experience, a positive state of energy, a sense of exactness, transcendence, and experiences of joy and bliss". WPS has become a basic need for every organizations and especially Information Technology (IT) organizations (Jason et al., 2014)¹⁶.

Duggleby, Cooper and Penz (2009)¹² contends that WPS is associated with a sense of spiritual well-being

that fosters a condition of hope which is linked to empowerment, thus to self-efficacy. The meaning attached to work, as well as experiences of psychological meaningfulness, leads to positive work outcomes (cf. Pratt & Ashforth, 2003²³; Wrzesniewski, 2003; Wrzesniewski et al., 2003)^{25,26} and specifically work engagement (May et al., 2004²⁰; Olivier & Rothmann, 2007)²¹. The meaning of work varied with participants perception of their self-concept. Spiritual connections are "the deeply ingrained principles that guide all a company's actions; they serve as its cultural cornerstones," observes Lencioni, P. M. (2002)¹⁹, (p. 114). Collins and Porras (1996)¹¹ point out that for the sense of community and spiritual connection truly have an impact; they must reflect the inner needs, beliefs, and aspirations of the employees. Sense of connection can reinforce higher purpose in the workplace. Values impact employee motivation and direction (Ferguson & Milliman, 2008)¹³ which influences their self confidence and improves their workability.

2.3 Contingency Theory

As per the contingency theory there is no single best way to do things. Studies postulates that organizational outcomes are the consequences of a fit or match between two or more factors (Islam & Hu, 2012). The alteration and modernization in technologies and other factor of organizations vicissitudes the working environment due to which employees shows their resistance to change. These resistances can be efficiently removed by enhancing self confidence in employees so that they can do well in the changed environment and will grow for sure.

From the above literature it is clear that workplace spirituality can foster the level of efficacy in employees. But there are limited studies have been done related to self efficacy and workplace spirituality. Mixed findings of self efficacy and workplace spirituality prospects more studies to be done in the area. Thus, on the basis of literature review researcher have formulated following hypothesis:

H1: Workplace Spirituality is positively related with Self Efficacy with age and experience as a moderator.

Figure 1:
Conceptualized Model

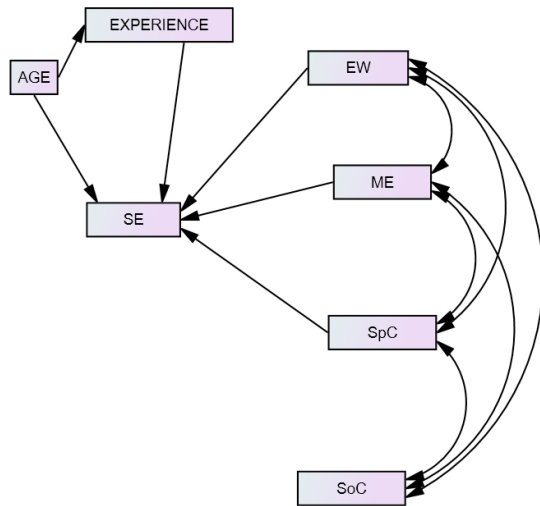


Figure 1. Conceptualized Model.

3. Research Methodology

3.1 Sample

Population: Software professionals from selected IT companies were taken as the population of the study.

Data collection: Sample was framed based on the convenience sampling and has been collected via questionnaire method. All the responses with missing values were eliminated from the study. Total 600 questionnaires were distributed, from which 512 were received and finally 485 complete responses were considered for the statistical analysis.

3.2 Measures

SE ($\alpha = .86$) was measured using 8 item scales adopted from the previous work of Chen, Gully & Eden (2001) and 18-item scale developed by Kinjerski and Skrypnek (2008) built on Ashmos and Duchon (2000) alpha having .93 to measure the construct of spirituality at work. Both the variables were measured on 5 point Likert scale with 1 as “Agree” and 5 as “disagree”. For the proposed study reliability of SE scale is .772 and WPS is .823. Reliability was examined through Cronbach’s alpha coefficient. These estimates passed the standard reliability levels (>0.50) and presented higher reliability of the measure. Internal consistency of the variables was measured through factor loadings and average variance explained estimates. Since the composite reliability of the measures was all above 0.60 i.e. .813, this showed that the measures had internal consistency (Bagozzi and Yi, 1988)³.

3.3 Analysis

Proposed conceptual model (see figure 1) was verified by using Structural equation model (SEM) for causal relationship between self-efficacy and workplace spirituality. Firstly, measurement model was confirmed using confirmatory factor analysis (CFA), and afterward SEM was performed to estimate the conceptual model. The evaluation of the model fit was done on the indicators like Goodness of fit index (GFI), Normed fit index (NFI), Comparative fit index (CFI) and Root mean square error of approximation (RMSEA) using AMOS 20 as these indexes provides a suitable indications about the overall fit of the research model fit assuming that the correlation among observe variable is zero.

Figure 2: Measurement Model

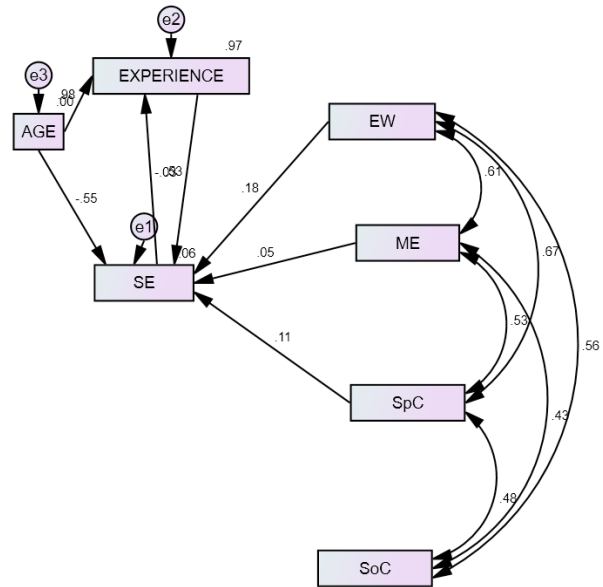


Figure 2. Measurement Model.

4. Results

The scale reliabilities, means, standard deviations, and correlations for the variables in the study are given in table 1. Structural Equation modeling was used to examine the hypothesized relationships among the proposed constructs. The results (see table 2) suggested that the hypothesized model fit the data well (CMIN-1.573, DF-3, CMIN/DF-0.524, CFI- 1, GFI-.999, NFI- .999, RFI- .996, RMR-.211 and RMSEA-.000). The effect of WPS ($b =$

.268, $p < .05$), EW ($b = .200$, $p < .05$) was significant hence, H1 is accepted while the impact of ME ($b = .057$, $p > .05$), SpC ($b = .174$, $p > .05$) on self- efficacy was insignificant. The impact of age and experience on SE is moderate ($b = .386$).

Table 3 and table 4 provide the residual regression matrix and the standardized regression weights respectively.

Table 1:
Result of scale reliability, mean, SD and correlation

Table 2:
Summary of model fit

Table 3:
Residual regression matrix

Table 4:
Standardized regression weights

5. Discussion

The result favored the expectations and provided a significant impact of WPS on SE thus hypothesis is confirmed in the study. The mean value of SE and WPS is 1.6232 and 1.8098 respectively. Researcher have found that the engaging work (EW) have significant impact on employee's SE ($b = .200$, $p < .05$). Mystical experience (ME) ($b = .057$,

Table 1. Sample Mean, Standard Deviation, Reliabilities and Correlations (Group number 1)

	Alpha	MEAN	SD	SoC	SpC	EW	ME	AGE	EXPERIENCE	SE
SoC	.823	1.7876	.70745	1.000						
SpC		1.8646	.83333	.476	1.000					
EW		1.7093	.53438	.560	.666	1.000				
ME		1.8779	.65929	.433	.528	.608	1.000			
AGE	-	36.27	5.679	.019	-.014	-.037	.009	1.000		
EXPERIENCE	-	11.32	5.516	.018	-.023	-.043	-.006	.984	1.000	
SE	.772	1.6232	.50638	.096	.250	.282	.207	-.038	-.054	1.000

Condition number = 171.633

Eigenvalues - 2.750 1.987 .925 .555 .464 .303 .016

Table 2. Summary of model fit indexes

MODEL TEST	CMIN	DF	CMIN/DF	P	CFI	GFI	RMR	NFI	RFI	RMSEA	FMIN
Conceptual Model	13.907	10	1.391	0.177	0.998	0.992	0.277	0.994	0.988	0.028	0.029
Measurement Model	1.573	3.000	0.524	0.665	1.000	0.999	0.211	0.999	0.996	0.000	0.003
Independence Model	2450.463	21.000	116.689	0.000	0.000	0.539	6.357	0.000	0.000	0.489	5.063

Table 3. Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
SE	<---	EW	.200	.070	2.859	.004	par_7
SE	<---	SpC	.174	.098	1.783	.075	par_8
SE	<---	ME	.057	.070	.812	.417	par_9
EXPERIENCE	<---	AGE	.955	.008	119.702	***	par_10
SE	<---	EXPERIENCE	.386	.617	.624	.532	par_11
EXPERIENCE	<---	SE	-.046	.038	-1.207	.228	par_12

Table 4. Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
SE	<---	EW	.185
SE	<---	SpC	.108
SE	<---	ME	.046
EXPERIENCE	<---	AGE	.983
SE	<---	EXPERIENCE	.525
EXPERIENCE	<---	SE	-.033
SE	<---	AGE	-.546

$p > .05$) and spiritual (SpC) connection ($b = .174$, $p > .05$) have been found to have significant impact on employee's SE except sense of community (SoC). Measurement model shows the interdependence between experience and SE. The reason behind no impact of SoC on SE could be that self-efficacy is an individual's inner feelings and perception about self and sense of community calls for group behavior.

Bakker and Demerouti (2009)⁴ investigated the relationship between WE and SE, and found that engaged employees have a high degree of self-efficacy. These findings show that employees having high work engagement, mystical experience and spiritual connection demonstrate high self-efficacy and thus better performance. Kielerstajn (2008)¹⁷ in a study said that older employees have accumulated self-efficacy during their career; they are more aware of their own skills and abilities. Experience is a method through which workers can increase self-efficacy by becoming more confident in their jobs, creating a sense that they are part of the system and functioning as a positive element (Parschau et al., 2013²²; Tims, Bakker, & Derks, 2014)²⁴. These studies are supported by this study which shows that age ($b = -.955$, $p < .05$) and experience ($b = .386$, $p > .05$) has a significant impact on SE. This study

significantly contributes to extend the existing knowledge by building and testing the conceptual model by uniquely integrating components of WPS with SE. It established that sense of community has no impact on one's SE. The study also constructs a theoretical argument for discussing the role of WPS and SE to meet the situational challenges. The IT industry is working in a team-based structure and dealing with the uncertain environment. The team leaders can facilitate the WPS to foster the SE so that the working environment can be stress free and ameliorated. Enhancing the SE through WPS can provide a fit for organizations.

6. Conclusion

The current study contributes to the expansion of the theoretical basis of self-efficacy and workplace spirituality and proves its relevance in IT industry. Although self-efficacy and workplace spirituality has been frequently examined individually but their collective studies are rare. Thus this study provides a novel approach to the organizations and researchers. The findings of the study facilitate the organizations and the management with the idea to foster the SE through WPS in employees.

7. Limitations

However, this study has certain limitations also. The sample size of the study was 485 only due to time and money constraints. So future study can be conducted on large sample size. This study is not having any mediator factors and taken only age and experience from demographics. So, the future research could be done with more variables and demographic factors (ex. Gender etc.). Lastly, the data for the study is generalized as it is from IT industry only; researchers are encouraged to do comparative studies which will allow better interpretation of the relationship.

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