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The Moderating Role of Personality Variables on Role Stressor - Job Satisfaction Relationship

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ABSTRACT

The present study was designed to determine whether need motivation, locus of control and self efficacy influence the relationship between role stressors and job satisfaction relationship. The basic premise is that there will be significant differences in the nature and magnitude of the moderating effect of these variables across the career stages. Results of moderated multiple regression analysis on data gathered from the Indian Administrative Service(IAS), Tamil Nadu Cadre revealed that the nature and the magnitude of the moderating effect varied across early, mid and late career stages.

Keywords: Locus of Control, Self Efficacy, Role Stressors, Job satisfaction

Introduction

Theoretical models of occupational stress processes have well acknowledged the importance of individual differences (Jex, 1998). Personal characteristics such as motivation, self efficacy and those related to control belief explain individual differences. These variables have been implicated as potential buffers of role stressor. The manner in which they impact stressor-strain relations have been reported by a few

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empirical studies (Srivastava, 1985; Jex & Bliese, 2001; Muhonen and Torkelson, 2004; Chiu, Chieh and Ching, 2005). The question of individual differences in relation to the experience and effects of stress and in relation to coping is virtually a defining characteristic of psychological approaches.

Starting with the pioneering work of McClelland (1953), the concept of motivation has gained momentum. Organizational scientist and practitioners have long been interested in employee motivation. This interest derives from the belief and evidence that there are benefits to having a motivated workforce (Locke & Latham, 2002).

Among McClelland's higher order needs, the need for achievement has been given more attention by many researchers and is found to buffer the undesirable effects of role stress on job satisfaction and other job related outcomes (Johnson & Stinson, 1975; Steers & Spencer, 1977; Morris & Synder, 1979; Sehgal 1985).

The construct of self-efficacy as a moderator variable has also received considerable empirical attention in the occupational stress literature (Gist and Mitchell, 1992). Research conducted has failed to provide convincing support for the moderating effects of self-efficacy alone. It was proposed that the stress-buffering effects of self-efficacy would be more marked if individuals possessed the approach coping tendencies and have better control over situations (Jex and Gundanowski, 1992; Jimmieson, 2000; Stetz and Bliese, 2006).

Individuals who define stressors as controllable will be more likely to attempt to cope with them effectively. A few research studies (Moyle and Parkes, 1999; Siu., Spector, Cooper, Luo, and Shanfa, 2002) have demonstrated locus of control to be a salient moderator in determining the psychological and physiological impact of those demands. Locus of control depends upon the degree of control an individual has over job demands (Spector, 1982).

This study is in essence an attempt to replicate the basic findings of the study conducted by several researchers (Sehgal 1985; Jimmieson, 2000). However while these authors tried to understand the moderating impact of need motivation, self efficacy and locus of control of respondent groups, the present study investigated their impact across career stages in

order to provide an understanding of the varying nature of its effect in each career stage.

Objectives of the Study

The study sets out to determine the moderating effect of need motivation, self efficacy and locus of control on role stress-job satisfaction relationship across early, mid and late career stages.

Methods

Respondents

Respondents in the research study comprised of 115 officers of the Indian Administrative Services, belonging to the Tamil Nadu Cadre. Of these 39 respondents belong to the early career stage, 41 belong to the mid career stage and 35 belong to the late career stage. The response rate is 39%.

Hypothesis

There will be a significant difference in the nature and magnitude of the moderating effect of variables on role stress-job satisfaction relationship across the career stages.

Measures

Role Stressors

Pareek's Organizational Role Stress (ORS) Scale (1982) considers all dimensions of role stress. The scale consists of 50 items divided into 10 subscales. The subscales are inter-role distance, role stagnation, role expectation conflict, role erosion, role overload, role-isolation, personal inadequacy, self-role distance, role ambiguity and resource inadequacy.

The respondents indicated whether an item is a source of stress to them on a 5-point scale ranging from, 1 (never feel this way) to 5 (always feel this way). Thus the total score on each role stress ranges from 5 to 25. The greater the score the greater is the stress due to a particular source. The alpha reliability of the scale is 0.94.

Job Satisfaction

The current study adopted Minnesota Satisfaction Questionnaire (Luthans, 1992). A short form of the Minnesota Satisfaction Questionnaire (1977) consisting of 20 items. Only 12 relevant items were selected to elicit information. Respondents indicated their degree of satisfaction on a five-point scale ranging from 1 (highly dissatisfied) to 5 (highly satisfied). The total score of the scale ranges from 12 to 60. The reliability of this measure is $\alpha = 0.88$.

Motivation

Motivation is assessed using the motivation scale standardized by McClelland, (1961). This scale was adapted to suit the present study. It is administered on the officers to assess their level of work related need for achievement, need for power and need for affiliation. In all, there are 15 items with 5 items for each of these dimensions. The scale ranges from 1 (rarely motivates) to 5 (strongly motivates). Thus the total score on each dimension ranges from 5 to 25. The measure has an alpha reliability of 0.86.

Locus of Control

Loco inventory (Pareek, 1982) was selected to measure the degree of control a respondent has over job demands. The loco inventory consists of three dimensions namely internality, externality (others) and externality (luck). A person with an internal orientation believes that his or her future is controlled from within. It represents self-confidence in a person's ability to control what happens to him in an organization. A person with external orientation believes that his or her future is controlled by powerful others. Whereas, a person with an external chance orientation believes that his or her future is controlled by luck or chance.

Respondents rated 30 items with 10 items for each dimension on a 5-point scale ranging from 1 (never feel this way) to 5 (strongly feels this way). Scores on each of the three dimensions of locus of control range from 10 to 50. For externality (others) and externality (luck), a higher total score indicates a higher level of external locus of control, and for internality a higher total score indicates a higher level of internal locus of control. Later the scores are reversed for external (others) and external (luck) to facilitate easy analysis of the data. The alpha reliability of the inventory is 0.82.

Self-efficacy

The general self-efficacy scale constructed by Sherer et al. (1982) was used to assess the degree to which respondents, believe they are capable of doing their job well. All the scale consists of 17 items, out of which 10 were selected to measure the general self-efficacy of the IAS officers. The scale ranges from 1 (strongly disagree) to 5 (strongly agree). The score of this scale ranges from 10 to 50. The measure has an alpha reliability of 0.53.

Operational Definition

Career Stages

The officers are distinguished into three stages. They are the early, mid and late career stages (Rabinowitz and Hall, 1981). The first fifteen years is seen as the early career stage (21-35). The next ten years is seen as mid career stage (36-46). And the remaining period until retirement is considered as the late career stage (47-58).

Results and Discussions

Mean and Standard Deviations of Variables

Table 1 highlights the mean values of each variable across career stages. Specifically, the mean score on role stress is 88.30 for early career, 101.15 for mid career and 88.57 for late career. Similarly, the mean scores on the locus of control are 129.97 for early career, 104.51 for mid career and 87.03 for late career. All other mean scores are fairly close across all the three career stages. A significant difference in the mean stress score of respondents belonging to early and mid career stage ($p < .05$) and a significant difference between mid and late career stage ($p < .10$) was observed using post hoc ANOVA test, namely the Duncan's test.

TABLE 1. Mean and Standard Deviations of Variables

	No of items	Early career		Mid career		Late career	
Independent variable		Mean	Std	Mean	Std	Mean	Std
Role stress	50	88.30	21.39	101.15	32.43	88.57	23.10
Moderator variable							
Locus control	30	129.97	23.20	104.51	16.80	87.03	14.05
Self-efficacy	10	41.38	5.91	41.37	3.63	41.86	4.41
Motivation	18	74.74	9.93	.86	9.35	74.46	9.15
Dependent variable							
Job satisfaction	12	49.44	7.66	46.44	7.97	46.29	9.62

Correlation Analysis

Pearson correlation is computed to examine the nature of association among the measures of overall role stress variable, the three moderator variables and the two dependent variables independently for each career stage. The coefficients of correlation between total role stress and the other five independent variables are observed to be negative for the early and mid career stages. Of the five variables, role stress is found to be significantly and negatively related to locus of control ($p < .05$), self-efficacy ($p < .01$), and job satisfaction ($p < .01$) for early career stage. For mid career, a strong adverse relationship is found for locus of control ($p < .01$), self-efficacy ($p < .01$) and job satisfaction ($p < .05$). On the contrary, a weak negative relationship with the other two variables, motivation and commitment is noticed. For late career, the only significant negative relationship is found between role stress and self-efficacy ($p < .05$). For job satisfaction, the relationship with role stress is adverse but not statistically significant. Locus of control and commitment are positively related with role stress though not very significant. A weak negative relationship between role stress and motivation is also noticed.

Of the other 30 inter variable correlations computed, 16 are seen to be statistically significant. The association was found to be positive and significant in three cases for early career. Job satisfaction was significantly correlated to locus of control ($p< .05$), motivation ($p< .01$), and commitment ($p< .05$). With regard to mid career, a significant positive correlation was noticed between job satisfaction and all the other variables. The relationship between locus of control and commitment is significant ($p< .01$). Similar is the case with motivation and self-efficacy ($p<.05$). However, for the late career stage, correlations between motivation, self-efficacy, commitment and job satisfaction were all significant.

The findings indicate a significant positive relationship between motivations and the two dependent variables, job satisfaction and commitment. A strong positive relationship is also witnessed between the two dependent variables, job satisfaction and commitment for all the career stages. This proves that all the three variables are interconnected

Locus of control is observed to distinctly influence satisfaction across the three career stages. For early career ($p< .05$) and mid career ($p< .01$), the relationship is found to be significant. For late career the relationship is found to be negative.

Self-efficacy and locus of control exhibit different relationship for each of the career stages. A positive non-significant relationship for early career, positive and significant relationship ($p < .05$) for mid career and a negative non-significant relationship for the late career stage are observed.

It is interesting to note that no significant positive relationship is found between self-efficacy and commitment for all the three career stages. On the contrary, a significant negative relationship ($p< .01$) between self-efficacy and commitment for early career, a weak positive relationship for mid career and a non-significant negative relationship for late career are noticed.

The correlations distinguish the late career stage from the early and mid career stages. From the above results it can be concluded that the respondents in the late career stage differ in many aspects from those in the early and mid career stages

Linear Moderator Multiple Regression Analyses

The following discussion is with reference to the moderating effect of motivation, self efficacy and locus of control at early, mid and late career stage. A separate moderator multiple regression analysis was carried out for each career stage in order to test if the moderators impact stress-strain relationship differently across career stages. An analysis of such sort would further help in suggesting specific stress management interventions for each career stage. To examine the moderating effect, the moderator multiple regression analyses procedure recommended by Cohen and Cohen (1983) was used. The moderated relationship, often referred to as the interaction, is modeled by including a product term of two main effect variables as an additional independent variable. The predictive ability of two or more independent (predictor) variables for a dependent variable is analyzed. As this study is interested in a measure of the total variance in the dependent variable, explained by the moderators and their relative importance, moderator multiple regression analysis is adopted. A moderator variable is one that interacts with another variable in predicting the dependent variable. The 'F' value for moderator multiple regression analysis was computed. This analysis is to check whether the increase in R^2 is significant.

Only those relationships for which moderator variables have either proved to be positive or negative moderators of stress-satisfaction relationship have been reported here. Self efficacy as a moderator proves to have a positive buffering effect for the early career stage but shows a nil buffering effect on the stress-satisfaction relationship for mid and late career stage (Table 2).

TABLE 2. Role Stress-Self- Efficacy-Job Satisfaction-Moderator Analysis (Early-Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	df	F	p
Job Satisfaction	Early Role stress	0.348	0.652	0.348	37	19.76	0.01
	Self-efficacy	0.372	0.627	0.023	36	1.36	
	Interaction (rsxseef)	0.372	0.627	0.000	35	0.02	
	Inter role distance	0.11	0.89	0.11	37	4.57	0.05
	Self efficacy	0.183	0.817	0.073	36	3.21	
	Interaction (irdxseef)	0.212	0.788	0.029	35	1.28	
	Role stagnation	0.132	0.868	0.132	37	5.62	0.05
	Self efficacy	0.215	0.785	0.083	36	3.80	
	Interaction (rstgxseef)	0.223	0.777	0.008	35	0.36	
	Role expectation	0.144	0.856	0.144	37	6.22	0.05
	conflict Self efficacy	0.192	0.808	0.048	36	2.13	
	Interaction (recxseef)	0.2	0.8	0.008	35	0.35	
	Role erosion	0.027	0.973	0.027	37	1.02	
	Self efficacy	0.154	0.846	0.127	36	5.40	0.05
	Interaction (rexseef)	0.184	0.816	0.03	35	1.28	
	Role overload	0.137	0.863	0.137	37	5.87	0.05
	Self efficacy	0.223	0.777	0.086	36	3.98	
	Interaction (roxseef)	0.223	0.777	0	35	0	
	Role isolation	0.215	0.785	0.215	37	10.13	0.01
	Self efficacy	0.306	0.694	0.091	36	4.72	0.05
	Interaction (rixseef)	0.379	0.621	0.073	35	4.12	0.05

	Personal Inadequacy	0.006	0.994	0.006	37	0.22	
	Self efficacy	0.139	0.861	0.133	36	5.56	0.05
	Interaction (pixseef)	0.147	0.853	0.008	35	0.32	
	Self role distance	0.277	0.723	0.277	37	14.17	0.05
	Self efficacy	0.383	0.617	0.106	36	6.18	0.05
	Interaction (srdxseef)	0.49	0.51	0.107	35	7.34	0.01
	Role ambiguity	0.555	0.445	0.555	37	46.14	0.01
	Self efficacy	0.585	0.415	0.03	36	2.60	
	Interaction (raxseef)	0.646	0.354	0.061	35	6.03	0.05
	Resource inadequacy	0.248	0.752	0.248	37	12.20	0.01
	Self efficacy	0.294	0.706	0.046	36	2.34	
	Interaction (rinxseef)	0.307	0.693	0.013	35	0.65	

Results of the analysis indicated that self-efficacy moderated the relation between three role stressors namely, role isolation ($p < .05$), self-role distance ($p < .01$), role ambiguity ($p < .05$) and job satisfaction for the early career stage (Table 2). A significant increase in R^2 value was noticed at all the three levels for role isolation (R^2= 21%, 30%, 37%), self-role distance (R^2=27%, 38%, 49%) and role ambiguity (R^2= 55%, 58%, 64%).

The analysis confirms self efficacy as a positive moderator. It helps in weakening the negative relationship existing between the three dimensions of role stress and job satisfaction for early career respondents. For mid and late career stage the moderating effect of self-efficacy is not noticed (Table 3 and Table 4). Wanous, (1992) in his study has proved that self efficacy as a moderator plays a major role at early career stage when compared to other career stages. Presumably, self-efficacy impacts stressor-strain relationships because individuals with high self-efficacy perhaps believe they can maintain an acceptable level of job performance despite presence of job-related stressors. This in turn leads to job satisfaction (Judge, Locke, and Durham, 1997).

TABLE 3. Role Stress-self Efficacy-job Satisfaction-moderator Analysis (Mid Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	df	F	p
Job Satisfaction	Role stress	0.096	0.904	0.096	39	4.14	.05
	Self-efficacy	0.176	0.824	0.08	38	3.68	
	Interaction (rsxseef)	0.176	0.824	0	37	0	
	Inter role distance	0.075	0.925	0.075	39	3.16	
	Self efficacy	0.172	0.828	0.097	38	4.45	.05
	Interaction (irdxseef)	0.178	0.822	0.006	37	0.27	
	Role stagnation	0.211	0.789	0.211	39	10.42	.01
	Self efficacy	0.276	0.724	0.065	38	3.41	
	Interaction (rstgxseef)	0.286	0.714	0.01	37	0.51	
	Role expectation	0.027	0.973	0.027	39	1.08	
	conflict Self efficacy	0.155	0.845	0.128	38	5.75	.05
	Interaction (recxseef)	0.157	0.843	0.002	37	0.08	
	Role erosion	0.019	0.981	0.019	39	0.75	
	Self efficacy	0.156	0.844	0.137	38	6.16	.05
	Interaction (rexseef)	0.158	0.842	0.002	37	0.08	
	Role overload	0.002	0.998	0.002	39	0.07	
	Self efficacy	0.157	0.843	0.155	38	6.98	.05
	Interaction (roxseef)	0.164	0.836	0.007	37	0.30	
	Role isolation	0.144	0.856	0.144	39	6.56	.05
	Self efficacy	0.205	0.795	0.061	38	2.91	
	Interaction (rixseef)	0.206	0.794	0.001	37	0.04	
	Personal Inadequacy	0.010	0.99	0.01	39	0.39	

	Self efficacy	0.215	0.785	0.205	38	9.92	.01
	Interaction (pixseef)	0.234	0.766	0.019	37	0.91	
	Self role distance	0.086	0.914	0.086	39	3.66	
	Self efficacy	0.188	0.812	0.102	38	4.77	.05
	Interaction (srdxseef)	0.200	0.8	0.012	37	0.55	
	Role ambiguity	0.103	0.897	0.103	39	4.47	.05
	Self efficacy	0.197	0.803	0.094	38	4.44	.05
	Interaction (raxseef)	0.222	0.778	0.025	37	1.18	
	Resource inadequacy	0.026	0.974	0.026	39	1.04	
	Self efficacy	0.156	0.844	0.13	38	5.85	.05
	Interaction (rinxseef)	0.163	0.837	0.007	37	0.30	

TABLE 4. Role Stress-self Efficacy-job Satisfaction Moderator Analysis (Late-Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	d.f	F	p
Job Satisfaction	Role stress	0.008	0.992	0.008	33	0.26	
	Self-efficacy	0.060	0.94	0.052	32	1.77	
	Interaction (rstgx seef)	0.069	0.931	0.009	31	0.29	
	Inter role distance	0.031	0.969	0.031	33	1.05	
	Self efficacy	0.090	0.91	0.059	32	2.07	
	Interaction (irdx seef)	0.092	0.908	0.002	31	0.06	
	Role stagnation	0.240	0.76	0.24	33	10.42	.01
	Self efficacy	0.250	0.75	0.01	32	0.42	
	Interaction (rstgx seef)	0.250	0.75	0	31	0	
	Role expectation conflict Self efficacy	0.012	0.988	0.012	33	0.40	
		0.066	0.934	0.054	32	1.85	
	Interaction (recx seef)	0.101	0.899	0.035	31	1.20	
	Role erosion	0.053	0.947	0.053	33	1.84	
	Self efficacy	0.089	0.911	0.036	32	1.26	
	Interaction (rexs seef)	0.129	0.871	0.04	31	1.42	
	Role overload	0.013	0.987	0.013	33	0.43	
	Self efficacy	0.091	0.909	0.078	32	2.74	
	Interaction (rox seef)	0.101	0.899	0.01	31	0.34	
	Role isolation	0.000	1	0	33	0	
	Self efficacy	0.061	0.939	0.061	32	2.07	
	Interaction (rix seef)	0.061	0.939	0	31	0	

	Personal Inadequacy	0.001	0.999	0.001	33	0.03	
	Self efficacy	0.076	0.924	0.075	32	2.59	
	Interaction (pix seef)	0.161	0.839	0.085	31	3.14	
	Self role distance	0.136	0.864	0.136	33	5.19	.05
	Self efficacy	0.141	0.859	0.005	32	0.18	
	Interaction (srdx seef)	0.143	0.857	0.002	31	0.07	
	Role ambiguity	0.008	0.992	0.008	33	0.26	
	Self efficacy	0.062	0.938	0.054	32	1.84	
	Interaction (rax seef)	0.065	0.935	0.003	31	0.09	
	Resource inadequacy	0.006	0.994	0.006	33	0.19	
	Self efficacy	0.097	0.903	0.091	32	3.22	
	Interaction (rinx seef)	0.097	0.903	0	31	0	

Note: cell values for p that are missing refers to insignificant values

It is further observed from the analyses that motivation and locus of control did not prove to be an effective moderator of role stress-satisfaction relationship at the early career and mid career stage (Table 5, 6, 8, 9). Further scrutiny of the results exhibits four significant interaction effects for motivation as a moderator at the late career stage (Table 7). Role overload x motivation interaction term added significant incremental variance at step 3 (R^2= 42%; F=4.03; p< .05). The other interaction term are noted in role isolation x motivation (R^2= 39%; F=6.60; p< .05), personal inadequacy x motivation (R^2= 38%; F= 5.01; p< .05), resource inadequacy x motivation (R^2= 41%; F=6.17; p< .05).

TABLE 5. Role Stress-motivation-Job Satisfaction-Moderator Analysis (Early-Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	df	F	p
Job Satisfaction	Early Role stress	0.348	0.651	0.348	37	19.76	0.01
	Motivation	0.491	0.508	0.143	36	10.17	0.01
	Interaction (rsxmoti)	0.512	0.487	0.020	35	1.48	
	Inter role distance	0.109	0.890	0.109	37	4.55	0.05
	Motivation	0.325	0.674	0.216	36	11.54	0.01
	Interaction (irdxmoti)	0.350	0.649	0.024	35	1.30	
	Role stagnation	0.131	0.868	0.131	37	5.61	0.05
	Motivation	0.357	0.642	0.226	36	12.67	0.01
	Interaction (rstgxmoti)	0.401	0.598	0.0439	35	2.57	
	Role expectn Conflict	0.143	0.856	0.143	37	6.20	0.05
	Motivation	0.298	0.701	0.154	36	7.91	0.01
	Interaction (recxmoti)	0.308	0.691	0.010	35	0.55	
	Role erosion	0.0266	0.973	0.026	37	1.01	
	Motivation	0.290	0.709	0.264	36	13.41	0.01
	Interaction (rexmoti)	0.327	0.672	0.036	35	1.910	
	Role overload	0.137	0.862	0.137	37	5.89	0.05
	Motivation	0.317	0.682	0.180	36	9.51	0.01
	Interaction (roxmoti)	0.336	0.663	0.018	35	0.96	
	Role isolation	0.215	0.784	0.215	37	10.16	0.01

	Motivation	0.410	0.589	0.195	36	11.91	0.01
	Interaction (rixmoti)	0.448	0.551	0.0378	35	2.40	
	Personal Inadequacy	0.005	0.994	0.005	37	0.20	
	Motivation	0.235	0.764	0.230	36	10.85	0.01
	Interaction (pixmoti)	0.239	0.760	0.003	35	0.17	
	Self role distance	0.276	0.723	0.276	37	14.15	0.01
	Motivation	0.442	0.557	0.165	36	10.68	0.01
	Interaction (srdxmoti)	0.462	0.537	0.019	35	1.28	
	Role ambiguity	0.554	0.445	0.554	37	46.07	0.01
	Motivation	0.619	0.380	0.064	36	6.08	0.05
	Interaction (raxmoti)	0.626	0.373	0.007	35	0.65	
	Resource inadequacy	0.248	0.757	0.248	37	12.20	0.01
	Motivation	0.393	0.606	0.145	36	8.63	0.01
	Interaction (rinxmoti)	0.415	0.584	0.022	35	1.31	

TABLE 6. Role Stress-Motivation-Job-Satisfaction-Moderator Analysis (Mid Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	d.f	F	p
Job satisfaction	Role stress	0.096	0.904	0.096	39	4.14	.05
	Motivation	0.206	0.794	0.11	38	5.26	.05
	Interaction (rsxmoti)	0.209	0.791	0.003	37	0.14	
	Inter role distance	0.075	0.925	0.075	39	3.16	
	Motivation	0.183	0.817	0.108	38	5.02	.05
	Interaction (irdxmoti)	0.185	0.815	0.002	37	0.09	
	Role stagnation	0.211	0.789	0.211	39	10.42	.01
	Motivation	0.303	0.697	0.092	38	5.01	.05
	Interaction (rstgxmoti)	0.312	0.688	0.009	37	0.48	
	Role expec Conflict	0.027	0.973	0.027	39	1.08	
	Motivation	0.148	0.852	0.121	38	5.39	.05
	Interaction (recxmoti)	0.152	0.848	0.004	37	0.17	
	Role erosion	0.018	0.982	0.018	39	0.71	
	Motivation	0.158	0.842	0.14	38	6.31	.05
	Interaction (rexmoti)	0.214	0.786	0.056	37	2.63	
	Role overload	0.002	0.998	0.002	39	0.07	
	Motivation	0.137	0.863	0.135	38	5.94	.05
	Interaction (roxmoti)	0.152	0.848	0.015	37	0.65	

	Role isolation	0.143	0.857	0.143	39	6.50	.05
	Motivation	0.255	0.745	0.112	38	5.71	.05
	Interaction (rixmoti)	0.256	0.744	0.001	37	0.05	
	Personal Inadequacy	0.01	0.99	0.01	39	0.39	
	Motivation	0.147	0.853	0.137	38	6.10	.05
	Interaction (pixmoti)	0.151	0.849	0.004	37	0.17	
	Self role distance	0.067	0.933	0.067	39	2.80	
	Motivation	0.172	0.828	0.105	38	4.81	.05
	Interaction (srdxmoti)	0.182	0.818	0.01	37	0.45	
	Role ambiguity	0.103	0.897	0.103	39	4.47	.05
	Motivation	0.206	0.794	0.103	38	4.92	.05
	Interaction (raxmoti)	0.207	0.793	0.001	37	0.04	
	Resource inadequacy	0.026	0.974	0.026	39	1.04	
	Motivation	0.149	0.851	0.123	38	5.49	.05
	Interaction (rinxmoti)	0.151	0.849	0.002	37	0.08	

TABLE 7. Role Stress-Motivation-Job-Satisfaction-Moderator Analysis (Late Career Stage)

Out come Variable	Entered variable	R^2	1- R^2	ΔR^2	d.f	F	p
Job satisfaction	Role stress	0.008	0.992	0.008	33	0.26	
	Motivation	0.270	0.73	0.262	32	11.48	.01
	Interaction (rsxmoti)	0.324	0.676	0.054	31	2.47	
	Inter role distance	0.031	0.969	0.031	33	1.05	
	Motivation	0.310	0.69	0.279	32	12.93	.01
	Interaction (irdxmoti)	0.310	0.69	0	31	0	
	Role stagnation	0.240	0.76	0.24	33	10.42	.01
	Motivation	0.528	0.472	0.288	32	19.52	.01
	Interaction (rstgxmoti)	0.580	0.42	0.052	31	3.83	
	Role expec Conflict	0.012	0.988	0.012	33	0.40	
	Motivation	0.287	0.713	0.275	32	12.36	.01
	Interaction (recxmoti)	0.336	0.664	0.049	31	2.28	
	Role erosion	0.053	0.947	0.053	33	1.84	
	Motivation	0.384	0.616	0.331	32	17.19	.01
	Interaction (rexmoti)	0.407	0.593	0.023	31	1.20	
	Role overload	0.013	0.987	0.013	33	0.43	
	Motivation	0.349	0.651	0.336	32	16.51	.01
	Interaction (roxmoti)	0.424	0.576	0.075	31	4.03	.05
	Role isolation	0.000	1	0	33	0	
	Motivation	0.271	0.729	0.271	32	11.89	.01
	Interaction (rixmoti)	0.399	0.601	0.128	31	6.60	.05

	Personal Inadequacy	0.001	0.999	0.001	33	0.03	
	Motivation	0.289	0.711	0.288	32	12.96	.01
	Interaction (pixmot)	0.388	0.612	0.099	31	5.01	.05
	Self role distance	0.136	0.864	0.136	33	5.19	.05
	Motivation	0.348	0.652	0.212	32	10.40	.01
	Interaction (srdxmoti)	0.349	0.651	0.001	31	0.04	
	Role ambiguity	0.008	0.992	0.008	33	0.26	
	Motivation	0.269	0.731	0.261	32	11.42	.01
	Interaction (raxmoti)	0.298	0.702	0.029	31	1.28	
	Resource inadequacy	0.006	0.994	0.006	33	0.19	
	Motivation	0.302	0.698	0.296	32	13.57	.01
	Interaction (rinxmoti)	0.418	0.582	0.116	31	6.17	.05

It is quiet clear that the adverse effect of role overload, role isolation, personal inadequacy and resource inadequacy on job satisfaction is not reduced for late career respondents. Motivation displays a negative moderating effect; it strengthens the negative relationship between the stressor and job satisfaction. An increase in stress would result in decrease of satisfaction. Motivation as a moderator, instead of reducing the impact of stress on satisfaction, strengthens the negative relationship between the two variables. It is possible that at one stage motivation may act as a negative buffer while in yet another it may not have any moderating effect. This may be due to the different experiences at each career stage. Similar findings are supported by Stone, Mowday, and Porter (1977).

One reason maybe that high achievers tend to have high expectations regarding their job. The expectations grow as individuals' progress through the career stages. Their job satisfaction is influenced by various internal factors like need gratification and external factors like prestige, control and autonomy. Autonomy grants individuals discretion and control in the performance of their work tasks (Engel 1970; Wallace and Jean, 2002). Lack of control and discretion in one's job is associated with

high levels of stress (Hendrix, Robert, Terry and Timothy, 1991; Leiter 1991; Guterman and Srinika, 1994). Organizational and personal initiatives would help reduce stress and increase job satisfaction

The moderating effects of locus of control on stress-job satisfaction relationship for the respondents in all the career stage are also ascertained (Table 8, Table 9, and Table 10). It is observed (Table 10) that locus of control moderates the negative consequences of role stress at the late career stage.

TABLE 8. Role Stress-Internal Locus-Job Satisfaction –Moderator Analysis (Early-Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	df	F	p
Job Satisfaction	Early Role stress	0.348	0.652	0.348	37	19.74	0.01
	Internal Locus	0.459	0.541	0.111	36	7.38	0.01
	Interaction (rsxinloco)	0.46	0.54	0.001	35	0.06	
	Inter role distance	0.11	0.89	0.11	37	4.57	0.05
	Internal locus	0.206	0.794	0.096	36	4.35	0.05
	Tnteraction (irdxinloco)	0.21	0.79	0.004	35	0.17	
	Role stagnation	0.132	0.868	0.132	37	5.62	0.05
	Internal locus	0.3	0.7	0.168	36	8.64	0.01
	Interaction (rstgxinloco)	0.302	0.698	0.002	35	0.10	
	Role expectation	0.144	0.856	0.144	37	6.22	0.05
	Conflict Internal locus	0.241	0.759	0.097	36	4.60	0.05
	Interaction (recxinloco)	0.294	0.706	0.053	35	2.62	

	Role erosion	0.027	0.973	0.027	37	1.02	
	Internal locus	0.201	0.799	0.174	36	7.83	0.01
	Interaction (rexinloco)	0.201	0.799	0	35	0	
	Role overload	0.137	0.863	0.137	37	5.87	0.05
	Internal locus	0.226	0.774	0.089	36	4.13	0.05
	Interaction (roxinloco)	0.226	0.774	0	35	0	
	Role isolation	0.215	0.785	0.215	37	10.13	0.01
	Internal locus	0.335	0.665	0.12	36	6.49	0.05
	Interaction (rixinloco)	0.336	0.664	0.001	35	0.05	
	Personal Inadequacy	0.006	0.994	0.006	37	0.22	
	Internal locus	0.148	0.852	0.142	36	6	0.05
	Interaction (pixinloco)	0.148	0.852	0	35	0	
	Self role distance	0.277	0.723	0.277	37	14.17	0.01
	Internal locus	0.401	0.599	0.124	36	7.45	0.01
	Interaction (srdxinloco)	0.401	0.599	0	35	0	
	Role ambiguity	0.555	0.445	0.555	37	46.14	0.01
	Internal locus	0.635	0.365	0.08	36	12	0.01
	Interaction (raxinloco)	0.635	0.365	0	35	0	
	Resource inadequacy	0.248	0.752	0.248	37	12.20	0.01
	Internal locus	0.352	0.648	0.104	36	5.77	0.05
	Interaction (rinxinloco)	0.353	0.647	0.001	35	0.05	

TABLE 9. Role Stress-Internal Locus-Job Satisfaction–Moderator Analysis (Mid Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	df	F	p
Job Satisfaction	Role stress	0.096	0.904	0.096	39	4.14	.05
	Internal Locus	0.232	0.768	0.136	38	6.72	.05
	Interaction (rsxinloco)	0.240	0.76	0.008	37	0.38	
	Inter role distance	0.075	0.925	0.075	39	3.16	
	Internal locus	0.232	0.768	0.157	38	7.76	.01
	Interaction (irdxinloco)	0.267	0.733	0.035	37	1.76	
	Role stagnation	0.211	0.789	0.211	39	10.42	.05
	Internal locus	0.271	0.729	0.06	38	3.12	
	Interaction (rstgxinloco)	0.281	0.719	0.01	37	0.51	
	Role expectation conflict	0.027	0.973	0.027	39	1.08	
	Internal locus	0.229	0.771	0.202	38	9.95	.01
	Interaction (recxinloco)	0.229	0.771	0	37	0	
	Role erosion	0.019	0.981	0.019	39	0.75	
	Internal locus	0.229	0.771	0.21	38	10.35	.0.01
	Interaction (rexinloco)	0.243	0.757	0.014	37	0.68	
	Role overload	0.002	0.998	0.002	39	0.07	
	Internal locus	0.261	0.739	0.259	38	13.31	.01
	Interaction (roxinloco)	0.271	0.729	0.01	37	0.50	

	Role isolation	0.144	0.856	0.144	39	6.56	.05
	Internal locus	0.273	0.727	0.129	38	6.74	.05
	Interaction (rixinloco)	0.316	0.684	0.043	37	2.32	
	Personal Inadequacy	0.010	0.99	0.01	39	0.39	
	Internal locus	0.257	0.743	0.247	38	12.63	.01
	Interaction (pixinloco)	0.282	0.718	0.025	37	1.28	
	Self role distance	0.086	0.914	0.086	39	3.66	
	Internal locus	0.252	0.748	0.166	38	8.43	.01
	Interaction (srdxinloco)	0.270	0.73	0.018	37	0.91	
	Role ambiguity	0.103	0.897	0.103	39	4.47	.05
	Internal locus	0.259	0.741	0.156	38	8	.01
	Interaction (raxinloco)	0.259	0.741	0	37	0	
	Resource inadequacy	0.026	0.974	0.026	39	1.04	
	Internal locus	0.246	0.754	0.22	38	11.08	.01
	Interaction (rinxinloco)	0.247	0.753	0.001	37	0.05	

TABLE 10. Role Stress-Internal Locus-Job Satisfaction –Moderator Analysis (Late Career Stage)

Out come variable	Entered variable	R^2	1- R^2	ΔR^2	d.f	F	p
Job Satisfaction	Role stress	0.008	0.992	0.008	33	0.26	
	Internal Locus	0.028	0.972	0.02	32	0.65	
	Interaction(rstgx inloco)	0.155	0.845	0.127	31	4.65	.05
	Inter role distance	0.031	0.969	0.031	33	1.05	
	Internal locus	0.070	0.93	0.039	32	1.34	
	Interaction(irdx inloco)	0.321	0.679	0.251	31	11.45	.01
	Role stagnation	0.240	0.76	0.24	33	10.42	.01
	Internal locus	0.262	0.738	0.022	32	0.95	
	Interaction(rstgx inloco)	0.267	0.733	0.005	31	0.21	
	Role expectation conflic	0.012	0.988	0.012	33	0.40	
	Internal locus	0.061	0.939	0.049	32	1.66	
	Interaction (recx inloco)	0.160	0.84	0.099	31	3.65	
	Role erosion	0.053	0.947	0.053	33	1.84	
	Internal locus	0.063	0.937	0.01	32	0.34	
	Interaction (rex inloco)	0.094	0.906	0.031	31	1.06	
	Role overload	0.013	0.987	0.013	33	0.43	
	Internal locus	0.04	0.96	0.027	32	0.9	
	Interaction (rox inloco)	0.116	0.884	0.076	31	2.66	

	Role isolation	0.000	1	0	33	0	
	Internal locus	0.027	0.973	0.027	32	0.88	
	Interaction (rix inloco)	0.064	0.936	0.037	31	1.22	
	Personal Inadequacy	0.001	0.999	0.001	33	0.03	
	Internal locus	0.030	0.97	0.029	32	0.95	
	Interaction (pix inloco)	0.253	0.747	0.223	31	9.25	.01
	Self role distance	0.136	0.864	0.136	33	5.19	.05
	Internal locus	0.139	0.861	0.003	32	0.11	
	Interaction(srdx inloco)	0.140	0.86	0.001	31	0.03	
	Role ambiguity	0.008	0.992	0.008	33	0.26	
	Internal locus	0.029	0.971	0.021	32	0.69	
	Interaction (rax inloco)	0.036	0.964	0.007	31	0.22	
	Resource inadequacy	0.006	0.994	0.006	33	0.19	
	Internal locus	0.032	0.968	0.026	32	0.85	
	Interaction (rinx inloco)	0.078	0.922	0.046	31	1.54	

Locus of control as a moderator variable helps the late career respondents in reducing stress. As a moderator of stress-satisfaction relationship, locus of control displayed 3 regressions to be positive and significant for the late career. The interaction effect is noticed for overall role stress x internal locus (R^2=15%; F=4.65; p< .05), inter role distance x internal locus (R^2=32%; F=11.45; p< .01) and personal inadequacy x internal locus (R^2=25%; F=9.25; p< .01). It plays an effective role in reducing the negative impact of overall role stress, personal inadequacy and inter-role distance conflict on job satisfaction. This points to the fact that locus of control acts as a better positive buffer of stress when compared to motivation for the late career respondents.

For early and mid career, no interaction effect was noticed (Tables 8 and 9). A high level of internal locus helps the late career respondents to reduce the negative impact on satisfaction of certain stressors like the overall role stress, inter role distance and personal inadequacy.

The empirical evidences have no doubt proved that "internals" believe that they can control and "externals" believe that they cannot control events. This has implications for job satisfaction and job involvement (Spector 1982; Keller, 1984; Oi-ling Siu, 2002). On the contrary the findings of some studies report mixed results regarding locus of control as a moderator variable (Kimmons and Greenhaus 1976; Batlis 1980). The current study proves that locus of control as a moderator helps late career respondents rather than early career and mid career respondents.

Conclusions

The three moderator variables-motivation, locus of control and self-efficacy all have a buffering effect on the relationship between role stress and the outcome variable viz. satisfaction. However, the nature of the effect is different in each of the career stages. Results point to the fact that the moderator variables can be used to address satisfaction outcome.

With regard to motivation variable, it can be concluded that the high motivation needs of the late career respondents do not match with the challenges and opportunities provided to them by the job. The high need for motivation is in fact found to strengthen the negative relationship between role stressors and job satisfaction. This otherwise means that the gap between the expectations of the late career respondents and what is actually being provided to them is very wide, resulting in stress.

Internal locus, on the contrary, helps the late career respondents in reducing the adverse impact of role stress on job satisfaction. The respondents in this stage of career are able to define stressors as controllable. They are more likely to cope with them effectively and thereby experience fewer negative consequences. It helps them to move forward with their responsibilities despite deficiency in the system. For early and mid career stages, no interaction effect is observed either for motivation or for locus of control.

As a moderator of job satisfaction, self-efficacy plays a vital role at the early career stage. The respondents' belief that they are capable of discharging their duties efficiently keep them confident and satisfied. No other interaction effect is significant at the mid and late career stages.

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APPENDICES

APPENDIX 1. Early-career self-efficacy with dimensions of role stress and job satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.907	2.876		20.131	.000
	role isolation	-.928	.291	-.464	-3.188	.003
2	(Constant)	38.854	9.224		4.212	.000
	role isolation	-.834	.281	-.417	-2.969	.005
	early self efficacy	.435	.201	.304	2.164	.037
3	(Constant)	80.493	22.307		3.608	.001
	role isolation	-5.575	2.347	-2.789	-2.375	.023
	early self efficacy	-.545	.519	-.381	-1.050	.301
	moderator	.113	.055	2.380	2.033	.050

a. Dependent Variable: earlyjob satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	60.840	3.210		18.953	.000
	self role distance	-1.316	.350	-.526	-3.763	.001
2	(Constant)	40.678	8.638		4.709	.000
	self role distance	-1.248	.329	-.499	-3.799	.001
	self efficacy	.468	.188	.327	2.490	.018
3	(Constant)	97.852	22.498		4.349	.000
	self role distance	-7.987	2.498	-3.193	-3.197	.003
	self efficacy	-.905	.534	-.633	-1.695	.099
	moderator	.162	.060	2.803	2.717	.010

a. Dependent Variable: earlyjob satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	66.333	2.624		25.280	.000
	role ambiguity	-2.535	.373	-.745	-6.788	.000
2	(Constant)	54.318	7.776		6.985	.000
	role ambiguity	-2.369	.379	-.696	-6.250	.000
	self efficacy	.261	.159	.182	1.637	.110
3	(Constant)	106.082	22.431		4.729	.000
	role ambiguity	-10.851	3.494	-3.188	-3.105	.004
	self efficacy	-1.009	.541	-.706	-1.864	.071
	moderator	.210	.086	2.424	2.440	.020

a. Dependent Variable: earlyjob satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	66.333	2.624		25.280	.000
	role ambiguity	-2.535	.373	-.745	-6.788	.000
2	(Constant)	54.318	7.776		6.985	.000
	role ambiguity	-2.369	.379	-.696	-6.250	.000
	self efficacy	.261	.159	.182	1.637	.110
3	(Constant)	106.082	22.431		4.729	.000
	role ambiguity	-10.851	3.494	-3.188	-3.105	.004
	self efficacy	-1.009	.541	-.706	-1.864	.071
	moderator	.210	.086	2.424	2.440	.020

a. Dependent Variable: earlyjob satisfaction

APPENDIX 2. Late-career motivation with dimensions of role stress and job-satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	43.926	3.910		11.234	.000
	roleoverload	.285	.428	.115	.665	.511
2	(Constant)	-7.396	13.026		-.568	.574
	roleoverload	.736	.370	.297	1.989	.055
	latemotivation	.639	.157	.608	4.066	.000
3	(Constant)	-64.062	30.952		-2.070	.047
	roleoverload	7.472	3.387	3.016	2.206	.035
	latemotivation	1.395	.407	1.327	3.429	.002
	roxmotivation	-9.14E-02	.046	-2.610	-2.000	.054

a. Dependent Variable: latejobsatisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	46.622	4.267		10.926	.000
	roleisolation	-3.71E-02	.433	-.015	-.086	.932
2	(Constant)	4.217	12.841		.328	.745
	roleisolation	.115	.378	.046	.304	.763
	latemotivation	.551	.160	.524	3.448	.002
3	(Constant)	-62.083	28.355		-2.189	.036
	roleisolation	7.619	2.937	3.062	2.594	.014
	latemotivation	1.458	.382	1.387	3.817	.001
	roleisolationxmotivation	-.103	.040	-3.060	-2.573	.015

a. Dependent Variable: late job

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	45.541	5.045		9.026	.000
	personalinadequacy	9.876E-02	.632	.027	.156	.877
2	(Constant)	-.721	13.550		-.053	.958
	personalinadequacy	.527	.554	.145	.950	.349
	latemotivation	.578	.160	.550	3.602	.001
3	(Constant)	-70.619	33.779		-2.091	.045
	personalinadequacy	9.139	3.888	2.516	2.350	.025
	latemotivation	1.527	.451	1.452	3.388	.002
	pixmotivation	-.118	.053	-2.370	-2.235	.033

a. Dependent Variable: latejobsatisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	44.213	4.770		9.270	.000
	resourceinadequacy	.233	.504	.080	.463	.646
2	(Constant)	-1.758	13.143		-.134	.894
	resourceinadequacy	.534	.437	.184	1.223	.230
	latemotivation	.582	.158	.553	3.678	.001
3	(Constant)	-88.963	37.141		-2.395	.023
	resourceinadequacy	10.018	3.837	3.450	2.611	.014
	latemotivation	1.733	.486	1.648	3.567	.001
	rinxmotivation	-.126	.051	-3.263	-2.486	.019

a. Dependent Variable: latejobsatisfaction

APPENDIX 3: Late-career locus of control with dimensions of role stress and job-satisfaction

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1. (Constant)	49.685	6.607		**7.520**	.000
laterolestress	-3.84E-02	.072	-.092	**-.531**	.599
2. (Constant)	56.835	11.040		5.148	.000
laterolestress	-1.90E-02-	.076	-.045	-.248	.806
lateinternal locus	.102	.126	-.149	-.811	.423
3. (Constant)	143.254	41.409		3.459	.002
laterolestress	-.937	.432	-2.248	-2.170	.038
lateinternal locus	-1.138	.495	-1.661	-2.299	028
rolestressxintlocus	1.090E-02	.005	3.058	2.157	.039

a. Dependent Variable: late job satisfaction

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1. (Constant)	45.541	5.045		9.026	.000
personalinadequacy	9.876E-02	.632	.027	.156	.877
2. (Constant)	55.032	10.912		5.043	.000
personalinadequacy	.214	.643	.059	.332	.742
lateinternal locus	-.119	.121	-.174	-.981	.334
3. (Constant)	157.941	35.173		4.490	.002
personalinadequacy	-12.617	4.253	-3.474	-2.966	.006
lateinternal locus	-1.361	.422	-1.986	-3.225	.003
personalinadexlocus	.154	.050	4.280	3.045	.005

a. Dependent Variable: latejobsatisfaction

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	42.267	4.219		10.019	.000
	interroledistance	.395	.383	.177	1.032	.309
2.	(Constant)	53.340	10.526		5.068	.000
	interroledistance	.470	.386	.210	1.216	.233
	lateinternal locus	-.136	.119	-.198	-1.147	.260
3.	(Constant)	130.539	24.531		5.321	.000
	interroledistance	-6.774	2.163	-3.032	-3.133	.004
	lateinternal locus	-1.022	.281	-1.491	-3.639	.001
	interroledistxloco	8.219E-02	.024	3.722	3.391	.002

a. Dependent Variable: late job satisfaction