

Development And Initial Validation Of Role Overload Scale

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This article reports the initial validation of a new instrument, the Role Overload Scale, for assessing the perception of role stress among executives'. The Items were generated in English and Hindi both languages. Face validity of the scale items were checked by expert panel and found satisfactory. Factor analysis results indicated a two-factor solution which providing empirical evidence for the factorial structure of the Role Overload Scale namely un-fulfillment of social demands and insufficient of resources. Reliability of the scale (including components) was found satisfactory. The scale was also found valid in terms of item validity and convergent and divergent validity. The scale is useful to assess the perception of role overload among managerial personnel.

Key words: Role Overload, factor analysis, reliability analysis and validity analysis

Role overload is an important aspect of role theory in organizational setting. The concepts of role overload and role conflict have been used frequently, and often interchangeably, to understand the effects of chronic role strains on health & well being and performance. Ivancevich and Matteson (1980) stated that job stressors represent environmental conditions that may affect coping responses. Job stressors are directly associated with the role we play or the tasks we have to accomplish in the organization. They include sources of stress associated with role ambiguity, role conflict, quantitative and qualitative role overload, career development, and responsibility for people. Such conditions may interfere with normal psychological and /or physiological functioning if they are perceived as stressful.

In a more comprehensive work Peterson et al., (1995) reported that role stress can originate either in stressful work events or in role structure

whose meanings are to allow role incumbent to handle work events. Recent years have seen an increased interest in the use of role theory, to describe and explain the stresses associated with membership in organizations. Within an organizational context, the term 'role' can be defined as a set of expectations applied to the incumbent of a particular position by the incumbent and by role sender within and beyond organizational boundaries (Banton, 1965).

The use of role concept suggested that job related stress is associated with individual, interpersonal, and structural variables (Katz & Kahn, 1978). Lichtman and Hunt (1973) proposed that role conflict and role ambiguity occurs as an objective characteristic of role, and as perceptual reactions of the role incumbent which may or may not correspond with the objective characteristics of the role. Thus, both types of empirical indices-objective and

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subjective and their relationship should be considered.

Role overload refers to the total amount of work required and the time frame in which work must be completed (Cooper et al., 2001). It occurs when work roles require more time and effort than an individual has for them so that the roles cannot be performed adequately and comfortably (Markham & Bonjean, 1996).

French and Caplan (1973) have differentiated overload in terms of qualitative and quantitative overload. Quantitative refers to having too much to do, while qualitative refers to work that is too difficult. Overload results from an interaction of the person with the environment. The absolute level of work needed to be done (objective overload) is mediated by characteristics of the individual to determine subjective or perceived overload. What is too much for one person may be perceived reasonable by another (Ivancevich & Matteson, 1987).

Role overload can occur for several reasons. In some professions, role overload is the norm. For example, physicians in training experience tremendous role overload, largely as preparation for the demands of medical practice. In other cases, it is due to temporary circumstances. For example, if someone leaves an organization, the roles of other employees may need to be temporarily expanded to make up for the missing worker's absence. In other instances, organizations may not anticipate the demands of the roles they create, or the nature of an employee's role may change over time. Finally, it is also possible that an employee may voluntarily take on too many role responsibilities (Sauter et al., 1998).

In another form, amount of work that remains incomplete when he/she reaches the downstream boundary is referred to as work overload.

Role overload is an issue for employees since they work an irregular schedule that involves unpaid overtime. They are expected to have

high involvement in multiple work roles (Beck, 1998), and thus, they are likely to suffer from overload. Role overload exists when an individual fulfills multiple roles simultaneously and lacks the resources to perform them (Creary, & Gordon, 2016).

Although, several measures of job/ occupation/ organizational role stress have been developed in different contexts they are limited to their use. Reilly (1982) has developed a 13-item scale to measure role overload. This scale has been widely used, but most studies did not assess the unidimensionality of the scale (Thiagarajan, et al., 2006).

So we made an effort to develop a scale to assess the executive's perception of their role overload in Indian context.

Role overload was conceptualized in this study as a perception of too many things to do in time and resources available in any area(s) of work as well as how it is related to employee's unfulfillment of social demands.

METHOD

Sample

The data was collected from 210 first level managers in different Indian organizations. Participants in the study were 48.6 % from public sector organizations. They were composed of 90 % of males, 78.6% married. Mean of their Job tenures was 13.46 years (S.D = 10.30). The ages ranged of the executives varied from 21-60 years with a mean age of 38.07 years (S.D = 10.75).

Procedure

An Items pool was generated on the basis of prior available literature. In literature role overload was divided in qualitative overload and quantitative overload. Firstly 19 items were written in English and Hindi both languages. For the purpose of item analyses, data were collected from 120 people working at DLW Varanasi, including different category of supervisors. The index of homogeneity and internal validity of the individual items were determined by computing

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the item analysis. Out of 19, only 12 items were selected after initial screening. Therefore only 12 items were used in final study.

For the purpose of validation the scale was administered on 210 front level executives of different organization. The subjects were convinced to participate in the study and they were not paid for their participation in this study. The obtained data was analyzed by using factor analysis, reliability analysis and validity analysis.

RESULTS AND DISCUSSION

Primarily factor analysis (principal component with varimax rotation) was performed to identify the factor structure of Role Overload Scale and obtained results were presented in Table 1. Results of this analysis explore the two factor solution which explained the 50.14 % of total variance. Factor 1 (which explained 25.37 % of total variance) is related to un-fulfillment of social demands due to excessive workload whereas Factor 2 (which explained 24.77 % of total variance) is related to work overload due to lack of sufficient resource.

Table 1: Role overloads Scale's items and their component wise factor loadings (Rotated Solution)

Item No	Scale Items	Factor Loading	
		Factor 1	Factor 2
ro8	Due to busy schedule at work I do not spare enough time for coworkers. So I don't have good relations with them.	.767	
ro10	Due to excessive workload in this job; more mistakes are committed in work therefore my supervisor/ immediate officers are not happy with me.	.693	
ro7	Due to excessive work load in this job I do not help my coworkers despite my willingness.	.662	
ro11	Due to excessive workload I always feel mental tension and pressure.	.632	
ro12	Due to excessive workload, I have to do some job related work even at my home.	.574	
ro9	Due to excessive workload in this job; I hardly participate in the happy/ sad moments of my friends and relatives	.563	
ro3	I find it very difficult to complete the work hurriedly due to excessive workload		.734

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Item No	Scale Items	Factor Loading	
		Factor 1	Factor 2
ro1	I have to do a lot of work in this job.		.728
ro2	In spite of excessive workload I have to manage with insufficient number of employees and resources.		.720
ro5	I have been assigned a lot of responsibilities in this job.		.689
ro6	Due to excessive workload in this job I feel physical and mental fatigue.		.608
ro4	I am unable to carry out my assignments to my satisfaction on account of excessive work load and lack of time.		.491

Note: N=210 RO= Role Overload

Reliability Analysis

Further reliability analysis was conducted and obtained result is reported in Table 2. Internal consistency reliability (Cronbach Alpha) was found to be 0.768 for first factor 0.798 (6 items) for second factor (6 items) and 0.847 for whole Scale (12 items).

Table 2 Reliability Statistics of the Role Overload Scale

Cronbach's Alph	Part 1	Value	.798
		N of Items	6a
	Part 2	Value	.768
		N of Items	6b
	Total N of Item		12
Correlation Between Forms			.555
Spearman-Brown Coefficien	Equal Length		.714
	Unequal Length		.714
Guttman Split-Half Coefficien			.714

a. The items are: ro1, ro2, ro3, ro4, ro5, ro6.

b. The items are: ro7, ro8, ro9, ro10, ro11, ro12.

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Validity Analysis

The content validation of the scale was done by examining the item validity. Item validity was checked by performing Item total statistics. Results of Item total statistics of 12 items were

presented in Table 3. Results indicate satisfactory item total correlation for all the 12 items which indicates that items in the role overload scale were valid and had discriminatory power.

Table 3: Results of item total statistics of the Role Overload Scale (N=210)

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ro1	34.6524	67.903	.525	.835
ro2	34.7286	70.677	.377	.845
ro3	35.1810	64.580	.672	.824
ro4	35.4238	65.537	.574	.831
ro5	34.8524	69.265	.458	.840
ro6	35.2524	66.295	.570	.831
ro7	35.7238	65.301	.591	.830
ro8	36.0143	67.593	.507	.836
ro9	35.4381	66.994	.527	.835
ro10	36.3619	71.112	.397	.843
ro11	35.7952	66.192	.573	.831

The construct validity of the scale was also checked. Role Overload scale were significantly correlated with similar construct (convergent validity) and uncorrelated with other constructs (divergent validity). In this regard it has been found that role overload was significantly correlation with conscientiousness and altruism ($P<.01$) but uncorrelated with civic virtue and courtesy

Implications

In present work we have made an effort to validate a newly developed Role Overload Scale.

Factor analysis (principal component analysis with varimax rotation) of the scale reveals the two component of the scale. First component is related to un-fulfillment of social demands and second component is related to lack of sufficient resources. Although scale was standardized on front level managers but it might be useful to assess the level of perceived role overload of all the three level of managers (top, middle, and front). It is vital to assess and compare the perception of role overload of the executives to predict their job performance because role overload is not only also influences

the work performance of executive but also significantly affect their health status and psychological well being.
Conclusion

The newly developed Role Overload Scale was found valid and reliable and can be used to assess the perception of role overload in industrial /organizational setting.

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