Correlates of Work Autonomy

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Work Autonomy (WA), as one of the important job characteristics and prerequisites of work motivation, performance, participation, satisfaction, commitment to organization and the like, has been asserted by many researchers in organizational behavior. However, such assumption has not been sufficiently tested so far in the literature. The present study, which is purely methodological and partly aiding decision makers, highlights that WA scales when administered to a sample of private manufacturing company workers who varied in their nature of work, revealed that the scales are internally reliable. The results also revealed that WA, with all its facets, had positive and significant correlations with the outcome variables such as job satisfaction, job involvement, participation in decision-making and commitment to organization. Further, WA dimensions predicted significant variations in all their correlates. Thus, implications are drawn for future work system design and the consideration for the inclusion of various facets of WA, while integrating the elements of such system design for total organizational productivity.

Introduction

Employees, in general, clamor for freedom at workplaces. Freedom, such as freedom to learn, conduct experiments, try out creative and innovative work, has been the central theme of human resource development programs. Consequently, interest in the concept of Work Autonomy (WA), as a major component of job characteristics in job design domain, has never been greater than what has been demonstrated over the last few years. In addition to a great deal of empirical studies of job characteristics, the development of scales to measure each characteristic of job has been a major research activity (Breaugh, 1985; Eugene *et al.*, 2003; Rao and Venugopal, 2009; and Niessen and Volmer, 2010). While many of such activities emphasized development of job characteristic models, WA has received considerable attention for being one of the core characteristics of the job (Panzano and Baird, 2000; and Panzano *et al.*, 2002). However, research studies attempting to understand the antecedents and consequences of WA have been very sparse, stray and incomprehensive until recently. To that effect, this study attempts to understand the outcomes of WA and its relation to the WA *per se*.

WA is defined as the degree to which workers feel personal responsibility for their work (Turner and Lawrence, 1965) and the extent to which employees have a major say

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in scheduling their work, selecting the equipment they like and deciding on the procedure to be followed (Hackman and Lawler, 1979). This feeling of personal control over one's job environment is associated with a variety of personally and organizationally valued outcomes (Loher *et al.*, 1985) and has been identified as the most important variable in many research domains.

Highlighting the importance of WA variations in individuals' lives at work, Niessen and Volmer (2010) in their experiment found support to their assumption that participants with poor performance had low autonomy as opposed to their counterparts who had high autonomy. Further, they also found that task accomplishment had a negative impact on performance among those individuals who worked previously with low autonomy.

On similar lines, Rao and Venugopal (2009), while factor analyzing the quality of work life construct, found strong evidence in their study for the predominance of personal growth and autonomy in promoting quality of work life. Further, they suggested that personal growth and autonomy that employees prefer will have a positive impact on their personal life and help them to have an opportunity to develop close personal ties with others at work while they attempt to achieve their career goals.

On the other hand, union participation by the employees does have influence on the levels of autonomy experienced by them in their workplaces. In a study involving sampled data from 21 countries, Edlund and Grönlund (2010) examined whether there are any national variations regarding mean levels and class differences in autonomy. Their main conclusion was that both mean levels and class differences in autonomy have much more to do with the strength of organized labor than with the skill requirements of production.

Research studies in the past have consistently measured WA treating it as a unidimensional construct until Breaugh (1985). In this study, WA has been conceptualized as a multidimensional construct and the study attempts to explore the relationships between the dimensions of autonomy and its outcomes namely, job satisfaction, job involvement, participation in decision making and organizational commitment.

Job Satisfaction

It generally implies a positive evaluation of work and a positive effect deriving from it; that is, a "positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1300). Autonomy is expected to be associated with greater job satisfaction because workers have more freedom to determine their own effort and work schedule. Previous research in this area has been confined to the disciplines of psychology and sociology, and has been either qualitative in nature or relied on small, unrepresentative, samples of respondents (Anderson *et al.*, 1992; Landerweerd and Bousmans, 1994; Birdseys and Hill, 1995; Bhuian *et al.*, 1996; and Schienman, 2002).

Given that research on autonomy and job satisfaction is sparse. Nguyen *et al.* (2003) investigated the effect of different levels of job autonomy on several dimensions

(i.e., domains) of job satisfaction using a large-scale National Educational Longitudinal Study (1988-2000). They found that the degree of job autonomy is statistically related to overall job satisfaction. On further analysis, they found that the estimated impact of job autonomy on job satisfaction varied considerably between the five aspects of job satisfaction. The estimated impact was much greater for pay, promotion prospects and importance/challenge of job than for fringe benefits and job security.

More recently, Chung-Yan and Greg (2010) examined the interactive relationship between job complexity and job autonomy on job satisfaction, turnover intentions and psychological well-being. They proposed that the positive or motivating effects of job complexity are only realized when workers are given enough autonomy to effectively meet the challenges of complex jobs. Interestingly, they found that not only do job complexity and job autonomy interact, but that the relationships to the outcome variables are curvilinear in nature. Job complexity is shown to be both a motivator and a stressor when job autonomy is low. Lastly, the most beneficial effects of job complexity occurred when it was matched by a high level of job autonomy. Nevertheless, much of these research works ignore the issue of 'how much' job autonomy increases job satisfaction.

Job Involvement

Job involvement is conceptualized here as the degree to which one psychologically identifies with one's job (Kanungo, 1982) and therefore, one's motivational orientation to the job. It is further conceptualized as a personal characteristic and has been perceived as a response to organizational conditions (Dangwal, 1995).

Katrinli *et al.* (2009) aimed at identifying the antecedents of organizational identification such as job involvement and job dimensions in a healthcare setting. Their results indicate job involvement being related to organizational identification. Incidentally, among job dimensions, task identity and autonomy explained a significant proportion of variance in job involvement. De Cuyper *et al.* (2010) investigated contract type (temporary vs. permanent employment) as a possible moderator in the relationship between autonomy and workload on the one hand, and job involvement on the other hand, in samples from two countries, Belgium and Finland. Contract type moderated the relationship between autonomy and job involvement. The relationship was stronger in permanent than in the temporary workers. No moderation was found for workload. Instead, workload associated positively with job involvement in both temporary and permanent workers. Thus, when sufficient freedom is provided to the employees, they tend to involve in their jobs resulting in higher motivation and performance.

Participation in Decision Making

Participative decision making and job autonomy have been linked to perceived control. However, there has been some ambiguity in how this relationship has been approached in the literature (Evans, 1992). Pareek (1992) while asserting the importance of WA, stated

that if individuals who occupy various roles feel that they have enough scope to take initiatives or solve problems or do creative work, the role occupants, as well as the organization benefit a great deal. He further suggested the organizations must attempt to develop a sense of autonomy of this kind in every role, even at the lowest level in the organization. Further, Appelbaum *et al.* (2000) argued that the opportunity to participate in decision making leads to (1) the creation of trust between employees and their supervisors; and (2) workers experiencing their jobs as challenging and otherwise intrinsically rewarding. Evans (1992) found in his research using hierarchical confirmatory factor analysis in samples of teachers and computer company employees, that supported a model in which measures of separate job autonomy dimensions, general job autonomy, perceptions of participative climate at work, and perceptions of control at work were all related among each other significantly.

The workers in particular value more autonomy over how to perform their tasks, the opportunity to participate in decision making and increased communication with coworkers (Bauer, 2004). Bauer (2004) found that positive affect is dominated by the involvement of workers in flexible work systems (participation at work), indicating that workers particularly value the opportunities associated with these systems, such as an increased autonomy over how to perform their tasks (freedom to choose).

Organizational Commitment

Autonomy is recognized as a salient factor in the study of affective organizational commitment. Organizational commitment is highly valuable. Various studies have established the fact that commitment has a great impact on the successful performance of an organization. A highly committed employee when internalizes the goals and values of the organization, he or she will tend to have a stronger desire to belong to the organization and would be willing to display greater organizational citizenship behavior (Chandna and Krishnan, 2009). Acorn *et al.* (1997) have sufficiently estabilished the fact that autonomy at workplace has influence on many organizationally relevant outcomes. One such effect was related to the commitment and satisfaction with the job. Further, they also argued from the mixed responses which reveal that organizational commitment is directly, as well as indirectly, is affected through professional autonomy and job satisfaction.

One line of research suggests that WA works wonder as a moderating variable in causal relationship involving independent and dependent variables. One such relatively recent study was conducted by Aubé *et al.* (2007). They found that WA along with locus of control yielded a moderating effect on the relationship between perceived organizational support and organizational commitment.

Hawkins (1998) in his study of high school principals from a national sample found that there was a moderately strong correlation ($r = 0.55$, $p = 0.05$) between perceived autonomy and affective organizational commitment. This indicates that freedom to act

independently and to make various administrative decisions with respect to the operation of a school forms the centrality of the school administrators. Thus, reasonable autonomy creates an organizational climate where effective organizational commitment can be nurtured and developed thereon (Hawkins, 1998).

Present Study

Previous research studies (Hackman and Oldham, 1975; Sims *et al.*, 1976; and Decotiis and Koys, 1980) treated WA as a global construct, and focused on the unidimensional nature of autonomy. However, Breaugh (1989) suggests that exploring the multidimensional nature not only leads to improved theory development but also helps design effective organizational strategies.

Breaugh (1985) developed a 9-item scale for measuring the facets of WA with the contention that the earlier measurements had severe shortcomings. Fahr and Scott (1983) stated that WA may have been confounded with other job characteristics because of its unclear conceptualization and operationalization. Kiggundo (1983) also stated that global measures of WA confound with task independence/interdependence. Thus, in this study a three-dimensional construct of WA of Breaugh (1985) is adopted. The present study is guided by the claims of Breaugh (1989), that WAs has been internally reliable and sufficiently supported for their construct and predictive validity.

On the basis of the survey of literature, it is found that workers would react significantly to all the sub areas of WA. Further, it is also revealed that the WA provides variety of work, opportunities to work more responsibly, meaningfully and effectively. High autonomy means that employees are likely to be able to alter the pace of their work, how they perform the tasks, and the quality and quantity of their output. Low autonomy means when employees have no control over these aspects of their work.

Hackman and Lawler (1979) reported that on jobs that are described as being high on autonomy, employees would perform higher quality work and would perform more effectively. Employees who score high on WA would also score high on intrinsic work motivation, job satisfaction, job involvement, participation in job-related decisions, organizational commitment and reduced absenteeism. It is thus, assumed that all of these outcomes will partly be enhanced when jobs are high on WA. This study has twofold purposes. Firstly, it attempts to measure the WA and the correlates of autonomy. Secondly, it assesses the relationships between both WA and its correlates. In view of the above discussions, it was hypothesized that "the higher the WA the greater is its outcomes, viz. job satisfaction, job involvement, participation in decision making and organizational commitment".

Methodology

Data were collected during the working hours from 120 workers chosen randomly from the departments of a private manufacturing company which produces heavy batteries

for automobile companies. A structured interview schedule was used to collect data from the workers. This schedule includes standardized scales to measure the study variables besides the personal characteristics. Scales' details are presented in Table 1. All the scales have acceptable reliability coefficients. Participants were all male and married belonging to the technical departments. The mean age, years of experience, monthly income, number of promotions were 38.90 years (SD = 8.83 years); 11.55 years (SD = 9.30 years); ₹4,518.33 (SD = 608.00); 1.72 (SD = 1.39) respectively. The responses to all the scales (Likert type, 5-point response pattern) adopted were summated in order to arrive at composite scores for each of variables considered in the study. All the variables were further analyzed by treating the dimensions of WA as independent variable and the outcome variables like job involvement, participation in decision making, job satisfaction and organizational commitment as dependent variables. Further, to test the hypothesis, multiple regression analyses were computed

Table 1: Variables, Conceptualization, Scale Details and Reliabilities

S. No.	Study Variables	Conceptualization	Scale Details	Alpha
1.	Work Method Autonomy (WMA)	Discretion about procedures and means of doing one's work (Breaugh, 1985).	3-items (Breaugh, 1985)	0.62
2.	Work Schedule Autonomy (WSA)	Control over the timings and sequence of one's work activities (Breaugh, 1985).	3-items (Breaugh, 1985)	0.69
3.	Work Criteria Autonomy (WCA)	The ability to choose alternative ends of goals in terms of which one's performance is judged (Breaugh, 1985).	3-items (Breaugh, 1985)	0.74
4.	Job Involvement	The degree to which a person's work performance affects his or her self-esteem (Lodhal and Kejner, 1965).	6-item scale (Lodhal and Kejner, 1965)	0.80
5.	Participation in Decision Making	The extent to which employees were formally given explicit and specific decision-making rights (Nightingale, 1981).	8-item scale (Nightingale, 1981)	0.85
6.	Job Satisfaction	The degree to which an individual's needs, expectations and desires are fulfilled by his job in an organization (Smith *et al.*, 1969).	4-item scale (King *et al.*, 1982)	0.85
7.	Organizational Commitment	The relative strength of an individual's identification with and involvement in a particular organization (Steers, 1977).	5-item scale (Hrabiniak and Aluto, 1975)	0.80

Table 2: Regression Analyses

S. No.	Independent Variables	Job Involvement				Participation in Decision Making				Job Satisfaction				Organization Commitment			
		β	R^2	Adj. R^2	f-Value	β	R^2	Adj. R^2	f-Value	β	R^2	Adj. R^2	f Value	β	R^2	Adj. R^2	f-Value
1.	Method Autonomy	0.55**	0.30**	0.27**	12.32**	0.62**	0.38**	0.35**	17.62**	0.61**	0.37**	0.34**	16.88**	0.36*	0.13*	0.03**	4.29
2.	Schedule Autonomy	0.44**	0.19**	0.16**	6.74**	0.66**	0.44**	0.42**	22.58**	0.40*	0.16*	0.13**	5.47**	0.49**	0.24**	0.21**	9.07**
3.	Criteria Autonomy	0.62**	0.38**	0.35**	17.62**	0.65**	0.42**	0.39**	20.81**	0.41*	0.17*	0.14**	5.88**	0.70**	0.49**	0.47**	27.62**
4.	Overall WA	0.66**	0.44**	0.42**	22.58**	0.79**	0.63**	0.66**	48.65**	0.58**	0.34**	0.31**	14.81**	0.64**	0.41**	0.38**	19.97**

Note: n = 120; and significance = ** 0.001; and * 0.01.

separately for each outcome variable in order to know the causal relationship between the correlates and WA.

Results and Discussion

As mentioned earlier, it was hypothesized that "WA is correlated with its outcomes, viz., job satisfaction, job involvement, participation in decision making and organizational commitment. Here job satisfaction, job involvement, participation in decision making and organizational commitment are treated as dependent variables and facets of WA are taken as independent variables (see Table 2).

While taking job involvement as dependent on the facets of autonomy, WCA was found to have a strong correlation (β = 0.62), predicting 35% of variance in job involvement, followed by WMA (β = 0.55) and WSA (β = 0.44, R^2 = 0.16). Overall, autonomy was found to have a strong correlation (β = 0.66), predicting 42% of variance in job involvement. In other words, the results revealed that if WCA is raised by one standard deviation, job involvement may raise by 0.55 standard deviation units, whereas overall autonomy may rise by 0.66 units. This means employees will be more involved in their jobs when they are allowed to choose their own goals and to achieve such goals.

Similarly, with regard to participation in decision making, all the facets were found to be strongly correlated with participation in decision making (WSA – β = 0.66, R^2 = 0.42; WCA – β = 0.66, R^2 = 0.39; WMA – β = 0.62, R^2 = 0.35). The overall WA was also found to be very strongly

correlated with participation in decision making, predicting 61% of variance in it. Further analysis revealed that since all the facets were strongly correlated to participative decision making, if one unit is increased in WA 0.79 units may increase in participative decision making. Therefore, it could be said that when employees have sufficient degree of WA, the participation in decision making will be more meaningful, purposive and focused on organizational objectives.

With regard to job satisfaction, of all the facets of autonomy, Work Method Autonomy (WMA) was found to be strongly correlated (β = 0.61), predicting 34% of variance in job satisfaction, followed by WCA (β = 0.41, R^2 = 0.14) and WSA (β = 0.40, R^2 = 0.13). Overall, WA was found to be significantly correlated with job satisfaction (β = 0.58), explaining 31% of variance in job satisfaction. It could be further explained that one unit increase in WMA may increase 0.58 units in job satisfaction. The overall WA may increase 0.58 units in the same. It could be inferred from the analysis that employees tend to experience more job satisfaction when they are liable to determine their own work methods and their own means in achieving their goals.

Lastly, with regard to organizational commitment, WCA was found to be strongly correlated with organizational commitment (β = 0.70) predicting 47% of variance in it, followed by WSA (β = 0.49, R^2 = 0.21) and WMA (β = 0.36, R^2 = 0.03). The overall WA was also strongly correlated with organizational commitment (β = 0.64) predicting 38% variance in it. In other words, it could be said that organizational commitment may be increased by 0.70 units, if one unit is increased in MCA, whereas overall autonomy may increase it by 0.64 units only. This means, if the employees are allowed freely to choose and modify their means of achieving their work goals, they are more committed to their organization.

On further analysis, it is quite distinct that among all the facets of WA – WMA, WSA, WCA, there are very interesting unique results. WMA is found to be strongly correlated with job satisfaction, predicting 34% of variation in job satisfaction. Work Scheduling Autonomy (WSA) is found to be strongly correlated with job involvement, predicting 35% of change in involvement. Interestingly, work criteria autonomy is also found to be strongly correlated with participation in decision making and organizational commitment, explaining variance of 39% and 47% of change in each of them correspondingly.

Thus from this analysis, it could be stated that the hypothesis "the more the scores on WA the higher the scores on its outcome variables, viz. job satisfaction, job involvement, participation in decision making and organizational commitment", stands accepted.

This indicates further that the dimensions of WA, determines organizationally relevant outcomes like, job involvement, participation in decision making, job satisfaction and organizational commitment.

What makes people more involved in their jobs, while attempting to put sincere effort in making effective decisions is determined by degree of discretion that they have with regard to what to do, how to do, when to do and with whom to do things in their workplace. Traditional prescriptions on job characteristics theory had grossly underscored such issues of including multidimensional facets of WA. Let say, if employees have the freedom to choose what kind of tasks to perform, it enables them to design their own tasks conveniently and consequently perform such tasks comfortably. Similarly, if they have choice to choose from what kind of techniques, methods and procedures that are suitable to perform their jobs more effectively, it will lead to individual and workplace productivity. Further, if they also have choice to choose their own time to perform their work, and choice of team members to perform, they will be more motivated and be delighted to perform such work consequently, their commitment to the organizations will be heightened.

Implications

As the selected outcome variables were significantly correlated with the WA dimensions, the results reported in this paper are much encouraging. Therefore, some of the potential areas of practice suggested are as follows:

First, there is a need to relook at WA as an important job characteristic owing to its influence on the outcome variables, as suggested in this study. Since all such outcomes determine the employee productivity on one hand, and the organizational productivity on the other, job design strategies should ideally incorporate the dimensions of WA.

Hackman and Oldham (1975) are of the opinion that autonomy in the job acts as a multiplicative characteristic and it has a great motivating potential for the job occupant, necessitating the inclusion of such characteristic in all job design efforts in modern organization. Further, Hackman and Oldham (1976) stated that job design aims to enhance job satisfaction and performance; methods of job design include job rotation, job enlargement and job enrichment. Besides, other influences on satisfaction include the management style and culture, employee involvement, empowerment and most importantly autonomous work position of the employees.

How best the arrangement as mentioned above, could be made, is addressed in major part of design considerations of motivation programs including work system design. Here, though this research addressed three facets of WA, exploration of all the other dimensions of WA needs to be done in consultation with all the concerned HR functionaries in various workplaces. Besides, integration of such facets of autonomy into the work system design, there is also need for workgroup to have consensus on the work-based decisions. There should be more scope for consideration of flexibility in giving jobholders options to chose work procedures, and means of doing work on one hand and enabling them to have control over the timing and sequencing of their work activities on the other hand, giving them the ability to choose various alternative ends of goals in terms of their performance also

should be part of such design consideration. Lastly, sufficient description to choose the team members or the team itself as part of work system design will increase total organizational productivity.

Conclusion

It could be said that jobs which are high on all the facets of WA may enhance job satisfaction, job involvement, participation in decision making and organizational commitment. The question that was addressed in this paper was which facets of WA could improve organizationally relevant outcomes. Besides the methods, criteria and scheduling autonomy which were addressed empirically in this study, it also assessed their effects on individual and organizationally relevant variables. The implications section of this paper addressed the importance of work team autonomy, in the sense, giving discretion to the employees to choose the team and the members with whom they would like to take part the work goals and the business goals of the organization. If such prescriptions are considered at the time of work systems design, there will be total organizational productivity. □

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Appendix

Scales Employed

Part A: Work Autonomy

1. I am free to decide how to go about getting my work done.
2. I am free to choose how to carry out my work.
3. I am able to choose the way to go about my work in the team.
4. I can decide when to do particular activities as part of my work in the team.
5. I have control over the scheduling of my work in the team.
6. I have some control over the sequencing of my activities in the team.
7. I am able to decide for myself what my objectives are.
8. I have some control over what I am supposed to accomplish in the team.
9. I can influence how I am evaluated, so I can emphasize some aspects of what I do and play down others.

Part B: Outcomes of Work Autonomy

Job Satisfaction (King *et al.*, 1982)

10. Overall, how satisfied or dissatisfied are you with your main job?
11. Grade your job as you feel.
12. If you had the choice to make again, would you choose the same occupation or type of work?
13. If you had an opportunity to take a similar job at same pay in another organization, would you take it or stay in your current job.

Job Involvement (Lodhal and Kejner, 1965)

14. I'll stay overtime to finish a job even if I am not paid for it.
15. For me, morning at work really fly by.
16. I usually show up for work a little early to get things ready.
17. You can measure a person pretty well by how good a job he does.
18. To me, work is a small part of who I am.
19. Most things in life are more important than work.

Participation in Decision Making (Donald, 1981)

20. Employees need not be informed about decisions made by management (except as necessary to conduct the work).
21. Employees have the right to be informed after decisions are made.
22. Employee must be informed ex ante and give an opportunity to voice their opinions.
23. Employees are consulted informally before a decision is made.
24. Employees must be consulted before a decision is made.

Appendix (Cont.)

25. Employees participate informally with management in decision making, management (through 'residual rights') and employees (through collective agreement) retain the right of veto over some issues.
26. Management and employees jointly make decisions, in some cases employees have parity with stockholder and management interests in other shareholders and must interest dominate.
27. Employee has the final say in decision making.

Organizational Commitment (Hrabinaik and Aluto, 1975)

28. Would you leave your present organization under any of the following conditions?
    a. A slight increase in pay.
    b. A slight increase in freedom to be professional creative.
    c. A slight increase in status.
    d. A slight increase in friendliness of coworkers.

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