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Turnover Functionality Versus Turnover Frequency: A Note on Work Attitudes and Organizational Effectiveness

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Abstract

Recent arguments by Dalton, Todor, and Krackhardt (1982) have highlighted the need to distinguish between turnover frequency (i.e., the number of separations) and turnover functionality (i.e., the nature of separations). Turnover functionality, which considers both turnover frequency and the performance level of leaven and stayers, is more critical to organizational effectiveness than is turnover frequency. We test whether work attitudes, widely praised as predictors of turnover frequency, are also useful predictors of turnover functionality. The results of our study, using a sample of 112 retail salespersons, indicate that (a) the traditional measure of turnover frequency overstates the detrimental effects of turnover on organizational effectiveness, in that 53% of the turnover was, in fact, functional, and (b) turnover functionality, which emphasizes the performance levels of stayers and leaven, is unrelated to work attitudes. The practical implications of these results and directions for future research are discussed.

During the past 40 years, a substantial amount of evidence in the field of applied psychology has refuted the notion that *satisfaction leads to performance* (Iaffaldano & Muchinsky, 1985; Lawler & Porter, 1967; Schwab & Cummings, 1970). As a result, applied psychologists have frequently justified the study of work attitudes by claiming that these attitudes are significantly related to turnover. Steers's (1984) statement that "Job attitudes affect organizational effectiveness to the extent they influence turnover" (p. 442) is common among textbook treatments of this issue. Indeed, a large volume of research supports this position (Mobley, Griffeth, Hand, & Meglino, 1979; Steel & Ovalle, 1984).

A major assumption in the turnover-attitude literature is that turnover is an inherently bad occurrence and that turnover can be reduced by affecting attitudes toward the job. Hulin (1968), for example, was able to reduce turnover among clerical workers from 30% to 12% by increasing the level of job satisfaction. Recently however, many authors (Abelson & Baysinger, 1984; Dalton, Krackhardt, & Porter, 1981; Dalton & Todor, 1979, 1982; Dalton, Todor, & Krackhardt, 1982; Mobley, 1982; Muchinsky & Tuttle, 1979; Porter & Steers, 1973; Staw, 1980) have suggested that the traditional treatment of turnover overstates the negative consequences associated with this behavior. Dalton and Tudor (1979), for example, argued that in many cases the individuals who leave an organization are poor performers, and that the separation of these individuals actually provides the organization with an opportunity to replace poor performers with more effective workers. Dalton and Tudor (1979), therefore, stressed the importance of distinguishing between functional turnover (i.e., among low performers) and dysfunctional turnover (i.e., among high performers). Based on retrospective supervisor ratings of employee quality, Dalton et al. (1982) found that 42% of the voluntary turnover among bank tellers was actually functional, as poorer performers left the bank.

Similarly, but in a different area of research, Boudreau (1983) and Boudreau and Berger (1985) have argued that utility models, which emphasize the tenure (the opposite of turnover) of single groups or cohorts on utility (Schmidt, Hunter, McKenzie, & Muldrow, 1979), should instead focus on the flow of employees who enter and leave the organization. Boudreau and Berger's (1985) utility model of employee separations and acquisitions considers the number of newly hired employees (i.e., replacements), the number of separated employees (i.e., turnover), and mean level differences in performance between separations and replacements.

The arguments of both Dalton and Boudreau speak convincingly to the need for organizational researchers to address not just the frequency of turnover (i.e., the number), but the flow or functionality (i.e., the nature) of turnover. Both of these perspectives go beyond a consideration of the replacement costs of separations, which is the primary reason to reduce turnover frequency, and try to assess the costs (or benefits) associated with the performance differences between leavers, stayers, and replacements.

For example, assume that we standardize sales volume across salespersons in a retail organization, such that the mean is 0.0 and the standard deviation is 1.0. It could occur that in one instance, 10 low performers (i.e., z = -1.0) separate, whereas in another, 10 high performers (i.e., z = +1.0)

leave. Clearly, most organizations would view the loss of 10 high performers as more detrimental to organizational effectiveness than the loss of 10 low performers, despite the fact that the frequency of turnover is identical in both cases. This distinction between the performance levels of stayers and leavers, for purposes here, defines *turnover functionality*.

Although turnover functionality emphasizes the performance differences between stayers and leavers, turnover flow (Boudreau, 1983; Boudreau & Berger, 1985) emphasizes the performance difference between leavers and replacements. For example, in a situation where 10 low performers (i.e., z = -1.0) leave, and are replaced by 10 individuals at the mean on performance (i.e., z = 0.0), flow is more favorable than in a situation where these same separations are replaced by individuals who are even lower in performance (z = -1.5), despite the fact that both turnover frequency and turnover functionality are identical in both cases.

Under certain conditions, the distinction between flow and functionality becomes negligible. For example, if one assumes that (a) turnover, historically, has been neither markedly functional nor dysfunctional (i.e., performance levels of stayers and leavers are similar), (b) the applicant pool is constant from year to year, (c) the organizational selection or recruitment strategy is constant from year to year, and (d) learning curves are short, it is unlikely that the expected performance levels of replacements selected in a particular year will differ substantially from the performance levels of individuals selected in previous years (i.e., the job incumbent population). Therefore, under these conditions, the mean performance levels of job incumbents (0.0) serves as an acceptable estimate of the mean performance of replacements. When this occurs (i.e., replacements can be assumed to exhibit performance levels approaching the mean of current incumbents), turnover functionality and flow become isomorphic, in that functional turnover results in a favorable flow and dysfunctional turnover results in unfavorable flow. Boudreau and Berger (1985) discussed a similar assumption with respect to variability of performance for replacements, and stated that "virtually all existing research uses the variability among incumbents as a proxy for variability among applicants" (p. 597).

Changing the perspective from turnover frequency to turnover functionality has important implications for job attitude research. Just as researchers have overstated the importance of turnover, it could be the case that the importance of job attitudes, at least with respect to turnover frequency, has also been overstated. That is, although a large volume of research (cf. Mobley et al., 1979) shows that job attitudes are predictive of turnover frequency, there is no evidence to suggest that these attitudes influence turnover functionality. In fact, there are reasons to believe that attitudes are not related to turnover functionality.

Given the attitude-turnover frequency relation, attitudes would be expected to be associated with turnover functionality (i.e., a composite variable reflecting turnover frequency *and* performance) only if one of two conditions were true. First, if attitudes were positively correlated with performance, then attitudes would be associated with both elements of the composite, and an attitude-turnover functionality relation should ensue. However, results from recent meta-analyses and reviews of the literature show that measures of these attitudes *do not* correlate with measures

of performance (Mowday, Porter, & Steers, 1982; Rabinowitz & Hall, 1977; Steel & Ovalle, 1984). Second, an attitude-turnover functionality relation would also be expected if turnover frequency was associated with performance. For example, if it was generally the case that those who left tended to be high performers, then positive attitudes that reduce turnover frequency would also be beneficial for turnover functionality. The evidence, however, *does not* support the link between turnover frequency and performance. In a qualitative review of the literature on the turnover-performance relation, Jackofsky (1984) uncovered eight studies suggesting a negative relation, five studies finding a positive relation, and five studies indicating no relation whatsoever. Similarly, in a quantitative review of this same literature, McEvoy and Casio (1985) found a weighted mean correlation of –.16 between turnover and performance. When a 95% confidence interval is set around this value, however, this interval includes the .00 value, and hence one cannot infer that this value is significantly different from zero (Hunter, Schmidt, & Jackson, 1982). Thus, the evidence fails to support either of the two conditions required for predicting an association between attitudes and turnover functionality.

The practical implications of recognizing the possibility that attitudes do not influence turnover functionality should be clear. Interventions such as job design or participative management that attempt to reduce turnover frequency by improving job attitudes would, from a broader perspective, be self-defeating. Even if these programs were effective in reducing the frequency of turnover, the organization would still retain one low performer (i.e., z = -1.0) for every high performer (i.e., z = 1.0) it retained. Therefore, turnover functionality would be unaffected. Interventions designed to decrease turnover among high performers, leaving turnover among low performers unchanged or perhaps even increased, would be much more beneficial.

In conclusion, if one is to advocate the practical utility of job attitudes because of their affects on turnover, it must be recognized that this utility is not solely dependent on the relation between attitudes and turnover frequency. Instead, the utility of job attitudes depends on the relation between attitudes and turnover functionality, which is a composite variable incorporating both turnover frequency *and* performance.

Based on past research on the interrelations among attitudes, turnover frequency, and performance (Jackofsky, 1984; McEvoy & Cascio, 1985; Mowday, Porter, & Steers, 1982; Rabinowitz & Hall, 1977; Steel & Ovalle, 1984), this study advances the following hypotheses:

- 1. There is no relation between job attitudes and performance.
- 2. There is no relation between turnover frequency and performance.
- 3. There is a significant relation between job attitudes and turnover frequency.
- 4. There is no relation between job attitudes and turnover functionality.

Method

Subjects

Participants in this study were 143 salespersons (99 women and 44 men) employed by a major metropolitan department store located in the northeast section of the United States. Subjects were selected so as to maximize their comparability on an objective index of sales volume expressed in dollars, both within and across selling departments. For this index to be meaningful within departments, it was deemed necessary only to select persons who had equal opportunity to sell the same merchandise. For example, a shoe department structured so that one salesperson sold only Brand A shoes, whereas another sold only Brand B, was not included for study. For similar reasons, only salespersons who worked comparable time periods (full time weekdays) were selected. To ensure comparability across departments, two steps were taken. First, only departments operating on a ½ of 1% commission pay structure were included. Second, because salespersons in different departments were selling substantially different merchandise (e.g., T-shirts, perfume, small appliances), the metric for this index (i.e., dollars) only has meaning when standardized within selling departments. That is, selling \$500 worth of T-shirts and \$500 worth of radios does not reflect equal performance. When mean and dispersion differences in the dollar metric are removed through standardization, however, the standardized values become comparable. In order for the standardization process to produce a reliable index, it was also deemed necessary to select only departments with eight or more salespersons, so that the mean and standard deviation used to calculate the standard scores would be based on stable sample statistics. Thus, the 143 subjects originally selected for study came from relatively large departments, in which all individuals had an equal opportunity to sell identical merchandise during weekdays. It should be clear that these procedures were used to maximize the construct validity of the performance criterion, rather than to obtain a sample representative of some meaningful target population, and that performance was standardized to make the metric meaningful across departments.

Due to missing data, the final sample size for data analysis was 112. This sample size provides power of .89 to detect an effect size of .09 (i.e., r = .30) at the .05 probability level.

Measures

Job satisfaction

A shortened version of the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) was used to measure satisfaction with pay, co-workers, supervision, and the work itself. Evidence of the scales' reliability and convergent and discriminant validity can be found in Johnson, Smith, and Tucker (1982). Five items were added to this scale to measure satisfaction with job security. The respective alpha estimates of reliability for these scales were .81, .72, .73, .78, and .78. Responses were made using the conventional JDI format of Y for yes, N for no, and? for uncertain.

Organizational commitment

Organizational commitment was measured by a 15-item scale developed by Mowday, Steers, and Porter (1979). Mowday, Porter, and Steers (1982) cited research that indicates acceptable reliability and validity of this measure. Respondents used a 5-point Likert scale ranging from *strongly disagree* to *strongly agree* to indicate their identification and involvement with their organization. Alpha for this scale was .84.

Job involvement

A 10-item scale, which has demonstrated internal consistency and test-retest reliability in addition to discriminant and convergent validity (Kanungo, 1982), was used to measure job involvement. Participants used a 5-point Likert scale (*strongly agree* to *strongly disagree*) to express identification with their present job. Internal consistency reliability for this scale was .82.

Motivation to turnover

Motivation to turnover was a 3-item scale that used a 5-point Likert format (*strongly agree* to *strongly disagree*). The item most representative of this scale was reverse scored and worded "If things would stay the way they are now, I wouldn't mind staying in my present job for the rest of my life." Alpha for this scale was .73.

Turnover frequency

Data on voluntary turnover was obtained from organizational records one year after administration of the questionnaire. Stayers were coded 1, whereas participants who left the organization were coded -1.

Turnover functionality

As previously discussed, the functional turnover construct implies that all turnover is not equally costly to the organization. Instead, the cost of turnover is a joint product of turnover frequency and the performance levels of those who left, relative to those who stayed. Thus, turnover was a composite variable, whereas turnover frequency was weighted by performance. Performance was measured by accessing archival sources and recording total sales volume for the 3 months immediately preceding questionnaire administration. The three figures for total monthly sales volume were then standardized within selling departments to remove level or dispersion differences across departments. The average of these three standardized scores became the final measure of performance. Ideally, the performance measure would have been obtained just prior to separation, but this data was unavailable to the researchers. Instead, performance data was available only for the 3 months preceding questionnaire administration. The average month-to-month correlation among these three indices of performance was .63 (p < .01), and the internal consistency estimate of reliability for this measure was .83. Given this evidence for the temporal

stability of performance, the use of the data 3 months prior to questionnaire administration, as opposed to 3 months prior to separation, should not substantially bias the results.

Turnover functionality was then operationally defined using the following formula: $T_{funct} = T_{freq}$ *Performance, where Tfreq represents whether or not the individual left the organization (i.e., coded +1 for stayers, -1 for leavers), and performance was the individual's sales volume standardized within departments (i.e., a z score). A few examples may clarify the way in which this formula operates. Turnover functionality is positive under two conditions: first, when a high performer (z = +1.0) stays, (+1.0)(+1.0) = (+1.0), and second, when a low performer leaves (-1.0)(-1.0) = (+1.0). In contrast, functionality is negative when a high performer leaves, (-1.0)(+1.0) = (-1.0), and when a low performer stays (+1.0)(-1.0) = (-1.0). Finally, note that this measure of functionality differs from Dalton et al.'s (1981) measure of functional turnover. In their study, functional turnover was assessed through dichotomously coded, retrospective supervisory ratings. The measure of turnover functionality used in this study, on the other hand, is a continuous variable based on an objective performance index.

Results

Means, standard deviations, and intercorrelations among all of the variables used in this study are shown in Table 1. Evidence relating to Hypothesis 1 is shown in column 1, which contains the individual performance-attitude correlations and the multiple correlation (adjusted for shrinkage) of performance on attitudes. Hypothesis 1 receives support in that the attitudinal variables do not predict performance ($R^2 = .01$, ns). Column 1 also provides evidence in support of Hypothesis 2 in that there is no relation between turnover frequency and performance (r = .07, ns). Evidence supporting Hypothesis 3 is provided in column 2. Taken together, the attitudinal variables adjusted for shrinkage, account for 11% (R^2) of the variance in future turnover frequency. Significant univariate relations exist between satisfaction with pay (r = .32, p < .01), motivation to turnover (r = -.29, p < .01), and organizational commitment (r = .27, p < .01). Evidence regarding Hypothesis 4 is shown in the third column. Taken together, the attitudinal variables fail to predict (R^2) turnover functionality .04, ns).

Table 1 Means, Standard Deviations, and Intercorrelations Among Performance, Turnover Frequency, Turnover Functionality, and Job Attitudes

	Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1.	Performance	0.05	0.93	_										
2.	Turnover frequency*	0.73	0.68	.07	_									
3.	Turnover functionality	0.08	0.93	.82	01	_								
4.	Satisfaction with pay	8.88	3.40	.15	.32*	.14	(.81)							
5.	Satisfaction with the work itself	13.06	3.50	.19	.11	.21	.12	(.78)						
6.	Satisfaction with supervision	12.21	2.73	.06	.04	.00	.17	.07	(.73)					
7.	Satisfaction with co-workers	12.81	2.55	.15	02	.19	.03	.17	.23	(.72)				
8.	Satisfaction with security	13.80	1.95	.11	03	.12	.23	.18	.02	.24	(.78)			
9.	Motivation to turnover	9.21	3.05	20	29*	17	25	49	13	11	12	(.70)		
10.	Job involvement	26.17	7.31	.06	.14	.11	.11	.40	.03	.08	.18	35	(.82)	
11.	Organizational commitment	50.32	9.06	.15	.27*	.09	.38	.55	.18	.12	.22	68	.46	(.84)
Ř	2 b			.01	.11*	.04								

Turnover frequency coded: stayers = 1, leavers = -1.
 Squared multiple correlations of performance, turnover frequency, and turnover functionality regressed on attitudes, adjusted for shrinkage.

Finally, one-tailed t tests were used to test the directional hypothesis that attitudes would be more strongly related to turnover frequency than functionality. Two marginally significant differences were detected. The italicized results shown in Table 1 indicated that satisfaction with pay, t (109) = 1.39, p < .10, and organizational commitment, t (109) = 1.37, p < .10, were more strongly related to turnover frequency than to turnover functionality. Correlations with satisfaction with coworkers were also marginally different, but in a direction opposite to that hypothesized, t (109) = -1.57, p < .10. That is, satisfaction with co-workers was a better predictor of turnover functionality than frequency.

Discussion

The purpose of this study was to test whether job attitudes that have served as useful predictors of turnover frequency are also useful as predictors of turnover functionality. The results of this study indicate that (a) in line with results of Dalton et al. (1981), the traditional measure of turnover frequency overstates the detrimental effects of turnover on organizational effectiveness relative to turnover functionality, which emphasizes both frequency and performance, and (b) turnover functionality is unrelated to individual work attitudes. Each of these findings is discussed ahead.

This study, consistent with previous research (Dalton et al., 1981), indicates that the traditional measure of turnover frequency overestimates the cost of turnover to organizations because it treats all separations as equally costly. Although the traditional rate of turnover in this organization was 13.4%, the rate of turnover that was dysfunctional (i.e., turnover among above average performers) was only 6.25%. Thus, more than one half of all turnover was functional or beneficial to the organization in that it provided an opportunity to replace below-average performers.

Given the large standard deviation of performance (i.e., SDY = \$13,000), the costs associated with replacing separations are trivial relative to the costs and benefits associated with performance differences among stayers and leavers. For example, the difference in raw dollar sales volume between functional leavers and average performers was \$9,360 per month. Also, in this sample, the assumptions required for functionality to reflect flow were largely met. That is, historically, turnover was neither markedly functional nor dysfunctional, applicant pools and selection strategies were constant, and learning curves were short. Therefore, if these functional turnovers were replaced with average performers, sales would increase roughly \$112,000 per person per year. This advantage far outweighs the cost of recruiting, selecting, and training replacements, estimated by Mirvis and Lawler (1977) at roughly \$2,522 per separation.

Given the important distinction between frequency and functionality, the results of this study indicate that job attitudes predict turnover frequency but not turnover functionality. Because from an organizational effectiveness perspective, turnover functionality is more critical than turnover frequency, it can only be concluded that traditional arguments for the utility of job attitudes as predictors of turnover have overstated the practical importance of such variables.

The failure of job attitudes to predict turnover functionality can largely be attributed to the fact that, whereas related to one component of turnover functionality (i.e., turnover frequency),

attitudes were unrelated to the second component (i.e., performance). There are several reasons why attitudes such as satisfaction and commitment are not related to performance. Salancik (1977) has argued, for example, that one reason an individual becomes highly committed to an organization is that the person is a low performer and has no other available employment opportunities. Faced with a lack of mobility, the only rational response is to cognitively increase one's commitment to the organization so that there is consistency between one's attitudes and behaviors. Similarly, there are many reasons why someone might be satisfied with their job, which have no implication for performance. Indeed, one reason a person may be satisfied with a job is that he or she can make a living with a minimum amount of energy expenditure.

It could be argued that the failure of attitudes to predict turnover functionality is instead attributable to some methodological artifact. For example, standardizing the performance component of functionality removes across-department variance in this variable, whereas across-department variance in attitudes and turnover frequency are left free to covary. Post hoc analyses, however, revealed that there was no statistically significant across-department variance in turnover rates due to factors such as average sales levels or size of department. Furthermore, the results obtained by using a measure of turnover functionality based on unstandardized performance multiplied by turnover led to the same conclusion. Neither operationalization of turnover functionality was significantly related to attitudes.

Future research on turnover needs to identify variables that are associated with turnover functionality. Although variables identified by past research as being associated with turnover frequency (Mobley et al., 1979) may suggest some places to start, researchers in this area need to integrate findings from the motivation and performance literature. For example, factors believed to affect motivation, such as contingent reward structures, goal setting and feedback, and/or training, need to be examined with respect to functional turnover. The weak but suggestive correlation between satisfaction with co-workers and turnover functionality may indicate that social influences play some role in differentially affecting the separation decisions of high and low performers. Given the composite nature of turnover functionality, only variables associated with both turnover frequency and performance are likely to impact functionality.

This suggested redirection of research effort in the area of turnover does not imply that researchers in applied psychology should abandon the study of job attitudes. These attitudes and the origins of these attitudes are of interest in and of themselves. Furthermore, these attitudes have important consequences from the job incumbent's perspective. As was pointed out by Locke (1976), for example, one's attitude toward work "can affect his attitude toward life, toward his family, and toward himself. It can affect his physical health and possibly how long he lives" (p. 1334). Thus, there would appear to be ample justification for the study of job attitudes, without relying on questionable arguments regarding their impact on organizational effectiveness via performance or turnover.

In summary, the results of this study support several conclusions. First, in line with research by Dalton et al. (1981), measures of turnover frequency overstate the "problem" associated with

turnover, as more than one half of the turnover in this organization was functional. Second, given the distinction between functional and dysfunctional leavers, the results from this study indicate that job attitudes, widely praised for their ability to predict turnover frequency, are of almost no value in predicting turnover functionality. Third, organizations should not devote resources to programs designed to improve employee attitudes, based solely on the expectation that merely decreasing turnover frequency will result in beneficial consequences. Indeed the cost and benefits associated with performance differences among stayers, leavers, and replacements are likely to far outweigh the administrative and recruitment costs associated with replacing separations. Future research needs to place less emphasis on turnover frequency and its correlates, and should instead focus on turnover functionality. It could be the case that such research will uncover factors and/or design interventions that enhance turnover functionality by actually increasing turnover frequency.

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