

An Empirical Investigation of the Stability of Employee Engagement

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ABSTRACT: Organizational engagement is a new concept related to a large literature on job attitudes. The goal of this paper was to advance the literature on engagement. We investigated longitudinal hypotheses regarding the stability of employee engagement across a three-year period. Our findings suggested stability of engagement over time and did not support a deleterious effect of “manager churn.”

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Despite its increasing popularity in practice, there is little academic research available on the topic of employee engagement. An internet search using the term “employee engagement” yields an inordinate number of “hits” from consulting firms citing case studies and other convincing evidence of the strong relation between measures of employee engagement and important organizational outcomes such as retention and both individual and organizational performance. The same search performed on an academic database yields almost nothing (Macey, 2006).

The focus of the present research is to provide an empirical test using a longitudinal study design and a large organization with the goal of advancing the theoretical development of this relatively new construct. We begin by providing an overview of the literature on employee engagement and its relation to other, related, job attitudes. Next, we review the literature on job satisfaction with a focus on both situational and dispositional effects on the stability of employee job satisfaction. We draw on this theoretical work to put forth several hypotheses regarding the stability of employee engagement over time.

Engagement

There is little academic research available to cite a common definition of employee engagement. Engagement is a complex, broad construct that subsumes many well researched ideas such as commitment, satisfaction, loyalty and extra role behavior. Intuitively, we know engagement when we see it. An engaged employee extends themselves to meet the organization’s needs, takes initiative, is proactive, reinforces and supports the organization’s culture and values, is in the flow, shares the values of the organization, stays focused and vigilant and believes he/she can make a difference (Macey, 2006).

In practice organizations typically define engagement as being a part of the organization, having pride and loyalty in the company, being committed, and going “above and beyond the call of duty” (Macey, 2006). Macey summarizes the lay person definitions, and existing research and academic theory

to propose a robust theoretical taxonomy of employee engagement. His taxonomy includes three major sub-components of engagement: Dispositional, State and Behavioral. Within these broad buckets, he categorizes many well known and related constructs such as attachment and identification (O'Reilly & Chatman, 1986), organizational commitment (Mowday, Porter & Steers, 1982), organizational citizenship behavior (Organ & Ryan, 1995), organizational spontaneity (George & Brief, 1992), vigor, persistence and absorption (Schaufeli, Salanova, Gonzalez & Bakker, 2002), Self directed behavior (Ryan & Deci, 2000), involvement and alienation (Kanungo, 1982), adaptive behavior (Pulakos, Arad, Donovan & Plamondon, 2000), proactive behavior (Crant, 2000) and personal initiative (Baer & Frese, 2003).

The Corporate Leadership Council provides a simple definition of engagement that is consistent with Macey's (2006) work and the preponderance of available definitions. The Corporate Leadership Council defines engagement as the extent to which employees commit to something or someone in their organization and how hard they work and long they stay as a result of that commitment. While specific taxonomies and definitions will continue to be refined, it is reasonable to assume that employee engagement is a broad construct representing employee job attitude and includes elements of several, narrower and well established constructs. If this assumption is true, why is engagement becoming such a hot topic?

Linkage Research. Traditionally, organizations have assessed employee job attitudes through employee opinion surveys aimed at capturing people's job satisfaction. The purpose of these surveys was to help management understand and measure the work climate in order to better motivate and retain their people. Due to somewhat disappointing changes in behavior, culture and key organizational outcomes such as turnover, productivity and business performance, organizations have sought a more robust approach to demonstrate the link between employee job attitudes and individual and organizational outcomes. Thus, the recent focus on employee engagement is likely in response to these disappointing

results and a desire for organizational leaders to demonstrate greater linkage between organizational climate and individual and company success.

Although disagreement regarding a common definition of engagement continues, research continues to show the impact of employee engagement on important organizational outcomes. Specifically, results show that the extent to which employees are engaged in their organizations affects key business outcomes such as sales, customer satisfaction and employee turnover (ISR, 2005). Further, Hewitt Associates (2003) found that the correlation between engagement and a company's average five year Total Shareholder Return (TSR) was .54, thus demonstrating that engagement explains 39% of the variance in the variation in TSR. They show similar results over five years for sales growth ($r = .46$). Finally, Hewitt Associates cite results from a "Best Companies to Work For" study where highly engaged companies outperformed the market compared to their industry peer group.

The above evidence suggests that employee engagement may offer a superior approach to traditional job satisfaction efforts in terms of yielding evidence of a greater return on investment. However, this linkage research has been largely atheoretical. In order to better understand how to maximize the business impact of employee engagement it is critical to understand the extent to which employee engagement can be influenced. Therefore, we turn to the established job satisfaction literature as a foundation for exploring possible influences on engagement.

Stability of Job Attitudes

The investigation into the stability of job attitudes is not new. Dating back 20 years to their seminal work on the dispositional approach to job satisfaction, Staw, Bell & Clausen (1986), continue to spur researcher and practice into trying to better understand the extent to which environment and other contextual variables influence job attitudes.

Considerable empirical evidence supports the notion of stability of job attitudes over measures, situations and time (Dormann, & Zapf, 2001). The strongest evidence of this invariance of job satisfaction is found in research that supports pervasive, life long stability. Specifically, research has

demonstrated a link between early childhood and later job satisfaction as well as stability in job satisfaction of identical twins reared apart (Arvey, Bouchard, Segal & Abraham, 1989; Staw et. al., 1986). A similar study by Pulakos and Schmitt (1983) showed stability between pre-employment expectations of satisfaction and later measures of job satisfaction.

Research also supports the stability of job attitudes across measures and situations. McGowan and Gormly (1976) and Aries, Gold and Weigel (1983) showed stability is found over repeated measures of satisfaction. Similarly, Schneider and Dachler (1978) found strong consistency over 16 months between pre- and post measures of job attitudes.

Arguments for Instability of Job Satisfaction

Although the literature supports the notion of the stability of job attitudes over time, if the only changeable aspects of job satisfaction were extremely small and stable dispositional characteristics, this would suggest that assessing job attitudes in any type of organizational assessment would be questionable (Dormann & Zapf, 2001). Salancik and Pfeffer (1978) believe job attitudes are influenced by dispositional characteristics as well as by social information. This position is supported more recently by Weiss and Cropanzano (1996) who propose a cognitive model that describes how job reactions/attitudes result from correspondence between perceptions of the job and internalized standards.

Further, it is logical to hypothesize that situational and environmental factors have an influence on job satisfaction. Who hasn't personally experienced fluctuations in their level of excitement, energy, and passion about coming to work? Some days, we all dread the sound of the alarm, we look at our watches every 15 minutes wanting to know why the day is dragging on, and we are burdened with administrative details and inconveniences. Other days, we jump out of bed, are eager to get to start our work day, and the day flies by with meaningful and impactful work. This idea is borne out in the inherent appeal of the Hawthorne experiment results. The Hawthorne experiment suggests that a simple manipulation of the work environment can have a significant impact on attitudes and productivity.

Brief, Butcher and Roberson (1995) extended this idea of the influence of situational effects on job satisfaction decades later when they advanced a hypothesis to examine the influence of more transient, seemingly insignificant events on mood. Brief et al. found that not only did disposition (negative affectivity) have an association with job satisfaction, but also, showed that exposure to mildly positive, mood inducing events increased job satisfaction. Brief et al.'s study does not provide compelling evidence regarding the duration of a situational effect.

Recent research also lends doubt to conclusions regarding invariance across situations. For example, Dormann and Zapf (2001) note that while we may measure malleability in job characteristics in principle, people are likely to remain in a similar occupation, find a job in a related occupation, and generally keep certain organizational conditions constant, particularly with respect to job content and stressors. Therefore, studies showing instability over time may not actually be measuring *significant* contextual changes.

The Present Study

The job satisfaction literature shows that environmental and contextual variables may have some influence on employee satisfaction (e.g., Brief et al., 1995), Yet, Staw et al. (1986) note that changes in job attitudes will not persist over time because of the tendency for satisfaction to return to an “equilibrium state”. Nevertheless, the job satisfaction literature supports possible influences of both dispositional and contextual factors on employee job satisfaction.

Given the overlap between the constructs of job satisfaction and employee engagement, we sought to examine the extent to which employee engagement is stable over time versus being heavily influenced by contextual and environmental factors. The position taken in the present study is consistent with Staw et al. (1986) that employee engagement will demonstrate long term stability, regardless of short term environmental and situational factors.

Specifically, we look across thousands of data points from employee opinion scores of the same individuals over seven independent survey administrations. *We hypothesize that employee's engagement*

will be relatively stable over survey administrations. In addition, we look at the influence of a situational factor on variability in employee levels of engagement. Specifically, we look at the influence of changes in the employee's reporting relationship (manager churn) on employee perceptions of engagement.

Manager Churn. We define manager churn as repeated changes in an employee's formal reporting relationship (at least 2 changes over 3 years). The rationale for including this moderator lies in the common organizational adage, "people don't leave companies, they leave managers." To the extent that this is true, we can expect employees who continually need to adapt to a new manager will lose the consistency and harmony in their relationships and therefore may be more likely to experience short term disengagement. However, research and theory, point to consistency of job attitudes over time regardless of changes in organization, roles and managers (Staw & Ross, 1985). *Therefore, we hypothesize that over seven survey administrations, manager churn will not have a lasting effect on the stability of employee engagement.*

METHOD

Participants

Participants in the study were 23,611 employees of a large, multinational technology firm headquartered in the United States who regularly completed an employee opinion survey as a routine part of their employment. Each of the employees in the sample completed seven surveys, at six-month intervals over a 36-month period. The survey was administered as part of the organization's ongoing effort to maintain an attractive and productive work environment. Participation in the semi-annual surveys was voluntary and confidential. Data from workers located throughout the organization's global footprint were used. The demographic characteristics of the participants represented the regional populations of those employees who regularly complete the survey.

Instrument and Procedure

The organization's employee opinion survey process is web-based. For each survey, participants were invited via email to participate. Survey administrators could tell whether any given employee had

completed the survey but respondents' data was otherwise confidential. The survey measures employee perceptions about a variety of topics such as managerial effectiveness, developmental opportunities, and work-life balance as well as measuring a number of outcome variables such as intention to stay with the company, job satisfaction, and willingness to recommend the company as a great place to work.

RESULTS

Table 1 presents evidence regarding the stability of measured engagement across the seven surveys. The average survey response varied very little from one survey to the next. On the other hand, the means do not have a flat pattern but seem to have a flat, bell-shaped pattern with a peak on survey 5.

The STDDEV row at the bottom of Table 1 directly addresses the variability of individual's engagement across time. We computed the standard deviation of the engagement scores across the seven surveys. The mean standard deviation, 0.63 is clearly less than any individual survey's standard deviation (which range from 0.94 to 1.01) indicating that variance across surveys is far less than the variance of individuals in any survey, indicating support for the stability hypothesis.

To investigate the effect of manager churn we intended on using hierarchical regression. We constructed a regression model predicting engagement at time n from the available situational and personal variables. Then we entered a dummy variable indicating that they have the same (churn=0) or a different (churn=1) manager at time $n+1$. There are six such analyses that we could conduct (at times 2-7). However, exploratory analyses indicated that churn at time 2 predicted engagement at time 1. This indicates that there is an unmeasured third variable that affects the prediction. To resolve this problem, we included engagement at time n as a covariate.

Available situational and personal variables

- Sales/Non-sales role
- Management/non-management role
- FLSA exempt/nonexempt
- Job grade.
- Location, inside/outside the US
- Tenure
- Age

Given the available situational and personal variables, the final method involved three models predicting engagement. First we entered the situational and personal variables. Then we entered the prior engagement. And finally we added the churn indicator. In samples as large as ours, even very small differences are highly statistically significant, even if they are practically trivial. For example, Table 2 presents the prediction of engagement at time 2. All these models and the changes in R2 are highly significant ($p < 0.01$). However, it's clear that the increase in R2 due to churn alone, holding the other variables constant is trivial (R2-change=0.000). This pattern also held for the other five analyses which are not shown.

DISCUSSION

Our first hypothesis was that employees' engagement was relatively stable over survey administrations. Our results indicate a more complex reality. We saw evidence of broad movements of relatively small amounts (beyond what could be accounted for by sampling variability from survey to survey). Thus, as an organization the overall level of engagement did move slightly over time. In unreported analyses, we compared these movements to the organization's stock price and observed a very modest agreement in the two patterns. We believe that, absent some discontinuous event or influence, overall organizational levels of engagement are probably the result of numerous factors.

However, we also computed a measure of variability for each individual (the standard deviation of their engagement ratings across the seven surveys) and the variability of that measure was approximately one third of the variability of the individual surveys. We take this as evidence in support of substantial stability across the 36-month period studied.

Our second hypothesis concerned the deleterious effect of manager churn. Anecdotal evidence in the organization suggested that managerial churn was a significant cause for lowered engagement. We hypothesized that individual's stability would ameliorate any effect of churn and churn have any lasting effect. The results of the hierarchical regression modeling of the effect of churn did not support a

hypothesis that manager churn, per se, has a general deleterious effect on engagement. Thus the “lasting effects of churn” could not be assessed.

Limitations and Future Directions

The data reported here are from a single organization over a three and a half-year period. Additional data would be needed before one could be confident in generalizing these results. In addition, our initial regression analyses detected an unmeasured third variable. Our covariate procedure runs the risk of masking an significant effect and any future analyses should attempt to include this source of variability.

Another potential situational factor might be the level of engagement of the employee’s team on individual’s own engagement level. The rationale behind this hypothesis, is akin to the idea of a “bad apple.” We can find support for this idea in the social psychological literature and in the idea of social contagion. Simply put, if you place an individual in a team of unhappy, disengaged teammates, it is logical to assume that this will have some effect on the individual’s own attitudes and perceptions. In future research we hope to apply HLM methods to assess the effects of work group engagement.

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Table 1.
Summary of engagement on seven surveys, and the standard deviation measure.

Survey	Mean	95% CI	SD
1	4.42	4.41; 4.43	0.98
2	4.50	4.49; 4.51	1.00
3	4.62	4.61; 4.63	0.94
4	4.64	4.63; 4.65	0.96
5	4.74	4.73; 4.75	0.95
6	4.58	4.57; 4.59	1.00
7	4.54	4.53; 4.55	1.01
STDDEV	0.63	0.39; 0.87	0.32

Note: STDDEV=the standard deviation measure across seven surveys; 95% CI = 95% confidence interval for the reported mean (N=23611 for the surveys, N=7 for STDDEV). Note the values of the mean and confidence interval have been rescaled, but are representative of the raw means.

Table 2.
Hierarchical models predicting engagement at time 2.

	R2	R2 Change	Adjusted-R2	Predictors added
1	.019	--	.019	Sales role, FLSA, Age, Mgmt role, Location, Tenure, Job grade
2	.186	.008	.185	Satisfaction with supervisor at time 1
3	.186	.000	.185	Churn between times 1 & 2