

Engaging Mid and Late Career Employees: The Relationship Between Age and Employee Engagement, Intrinsic Motivation, and Meaningfulness

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Employee engagement has gained increasing attention by organizational researchers. A steady decline of engagement levels has been well documented. Lack of engagement has been found to negatively impact various organizational outcomes such as customer satisfaction, loyalty, safety, turnover, profitability, and productivity levels. The current study provides statistical evidence in support of the conceptual framework of Chalofsky and Krishna (2009) regarding the relationships between meaningfulness, intrinsic motivation, and employee engagement. This research also provides a deeper understanding of the relationship between employee engagement and age, specifically focusing on the differences between older and younger workers.

INTRODUCTION

The aging of the world's population is becoming more salient in the 21st century. By 2050, the number of individuals over 60 will be one third of the world's population. Some common reasons for this increase are associated with the decline of fertility and higher life expectancies (United Nations Populations Fund, n.d.). Specific to the US workforce, the statistics reveal that by 2015, fifty five million employees will be age 45 and older (Lun & Huang, 2007). The aging of the baby boomers, the economic conditions that are subject to later retirement, and the proportionally lower birthrates during the late twentieth century are some stated factors that have led to the increased prevalence of older persons in the workforce (Kanfer & Ackerman, 2004). A critical point to consider is that the aging of the workforce leaves fewer younger workers to take their place once they retire, a phenomenon that may be novel to many organizations.

In an "Older Workers Survey" conducted by the Society for Human Resource Management (Lockwood, 2003), more than half of the respondents reported that their employers failed to implement and monitor policies and processes that focus on hiring and retaining older workers. It is essential that organizational leaders understand the implications of the emerging age trends and how those will

directly impact organizational systems such as hiring, training, retaining, and motivation of employees (Shultz & Adams, 2007). Organizational leaders need to be aware of these changes and actively design and implement practices that address the needs of older workers. The aging of today's workforce raises many questions such as: How are older workers motivated and is it different from young workers? What factors impact the level of engagement of older workers?

Employee Engagement

The financial crisis that began in 2008 led to massive layoffs across industries, with a tremendous number of jobs eliminated virtually overnight (Bureau of Labor Statistics, 2009). The events that unfolded had a detrimental impact on organizational performance as well as employee attitudes given the uncertain economic climate that threatened their job security. While the economy has shown improvement, employee engagement has dropped as a result of the actions and decisions that were made to address this economic collapse (Sorenson & Garman, 2013). Specifically, by the end of 2012, only 30% of US workers indicated that they were engaged in their work and involved with and committed to their organization (Sorenson & Garman, 2013). These data are consistent with previous research that shows that one major consequence associated with downsizing practices is the deepening decline of employee engagement levels (Bates, 2004; Horrigan, 2004; Kowalski, 2003). This is a critical point for business leaders to consider given that disengaged employees are estimated to cost U.S. organizations 300 billion dollars per year in lost productivity (Fleming, Coffman, & Harter, 2005).

Employee engagement is a fairly recent organizational construct that has gained significance in the research literature as well as importance among organizational leaders who are seeking to retain people and attract high performing new employees. Kahn (1990) defined engaged individuals as those who “employ and express themselves physically, cognitively, and emotionally during role performances” (these can be seen in the right side of Figure 1); and disengaged persons as those who “withdraw and defend themselves physically, cognitively, and emotionally during role performances” (p. 694). He has identified three psychological conditions that influence employee engagement: Psychological Meaningfulness, Psychological Safety, and Psychological Availability. The practical implications of this conceptualization is that in order to improve employees engagement, managers should focus on promoting a sense of meaning and purpose in the *work itself* to create an impetus for continued productivity and high morale; even in times of hardship (Morrison, Burke, & Green, 2007).

In confirmation of Kahn's theory of personal engagement, May, Gilson, and Harter (2004) explored the determinants and mediating effects of meaningfulness, safety, and availability among 199 employees of a U.S. Midwestern insurance company. In support of Kahn's findings, their study indicated that all three psychological conditions had a significant positive relationship with employee engagement. Among the three conditions however, meaningfulness had the strongest relationship with engagement. It was further demonstrated that meaningfulness mediated the effects of both job enrichment and work role fit (the conditions for meaningfulness) on employee engagement. That is, individuals who found their jobs challenging and perceived a fit between their values and that of the organization were more likely to find their jobs meaningful; and those who found their jobs meaningful were likely to be more engaged.

What role do organizations play in promoting engagement amongst their employees, especially during times of economic hardships? Deal (2007) states that employers should rely less on extrinsic factors of the job, such as pay and benefits, and focus more on building an atmosphere of development and growth. Others argue that to improve employees engagement, managers should focus on promoting a sense of meaning and purpose in the *work itself* as they are the impetus for continued productivity and high morale; even in times of hardship (Morrison, Burke, & Green, 2007). Further, Morrison and colleagues suggest that these factors are present in *intrinsic motivational* aspects of the job. Thus, a logical next question is what are intrinsic motivational attributes and how are they relevant to employee engagement?

Intrinsic Motivation

Intrinsic motivation is demonstrated through “behaviors that are performed for their inherent interest and enjoyment of the activity itself” (Dacey, Baltzell, & Zaichkowsky, 2008, p. 570). Intrinsic motivation is driven from Self-Determination Theory which indicates that there are three fundamental needs that are essential for facilitating social development and well-being: competence, autonomy, and relatedness. Situations which promote such characteristics induce intrinsic motivation.

Expanding on Self-Determination Theory, Chalofsky and Krishna (2009) proposed that there is a deeper level of intrinsic motivation known as *meaningfulness*. Further, they explore the connections between workplace motivation, employee commitment, and employee engagement. The authors posit that meaningfulness is the key ingredient to intrinsic motivation, which in turn influences employee engagement levels. Traditionally motivation has focused on the accomplishment of a task. However, Chalofsky and Krishna proposed that *meaning*, which is a deeper level of intrinsic motivation, is what employees seek from their jobs. Meaning in this case focuses on the purpose of the *work itself* to the individual versus the gratification that follows the performance of a particular task.

Meaningfulness

Research in the organizational sciences literature on the topic of meaningfulness is still in its infancy and expanding (Seligman, 2011). Chalofsky (2003) conducted a literature review with the aim of developing a conceptual framework for the meaning of work. Based on three themes that emerged (i.e., sense of self, sense of meaning, and the work itself), he refers to meaningful work as an inclusive state of being where employees express the meaning and purpose of their lives by engaging in activities that compromise their working hours. Sense of self refers to bringing the whole self to the job (cognitively, physically, and emotionally). Sense of meaning is concerned with the time and effort that is attributed to our personal as well as professional lives. These terms are analogous to concept of employee engagement as described by Kahn (1990). Finally, the work itself refers to the act of performing, which is nurtured by an atmosphere that promotes challenge, creativity, autonomy, growth, and the opportunity to meet one’s purpose through work. This conceptual definition integrates with and expands the intrinsic motivational components described earlier.

Engagement Relative to Age

A limited number of academic studies have examined the relationship between age and employee engagement. Unfortunately, the research that has been conducted in this important area has yielded contradictory results. For example, based on a survey of over 10,000 employees in 14 organizations, Robinson, Perryman, and Hayday (2004) found a decline of employee engagement levels with an increase in age and terms of service. Contrary to their findings, Pitt-Catsoupes and Matz-Costa (2008) examined the effects of flexibility at work on employee engagement. Their results showed that more flexibility at work was related to higher employee engagement. However, among individuals with flexible work arrangements, those 45 years of age and older were more engaged overall than their younger counterparts.

James, Swanberg, and MacKechnie (2007) also examined the relationship between employee engagement and age. Younger employees were specified as those 54 years of age and younger who represented 88% of the sample and older employees were specified as those 55 years of age and older who represented the remaining 12%. Their results based on survey data of over 6,000 employees ages 18-94 from a U.S. based retail organization revealed that older workers (ages 55 +) were significantly more engaged than younger employees (ages 54 and younger).

Relative to age, a study by Avery, McKay, and Wilson (2007) looked at the interplay between employee age, perceived co-worker age composition, and satisfaction with co-workers on employee engagement. Their results revealed that age moderated the relationship between employee engagement and co-worker satisfaction. More specifically, for older workers (55 and older), perceived age similarity with co-workers was associated with higher levels of engagement when they were highly satisfied with co-workers of the same age group than younger age groups (40 or younger) (Avery et al., 2007). Overall,

the relationship between age and employee engagement is limited and inconsistently defined in the research literature.

The current study builds on the conceptual framework presented by Chalofsky and Krishna (2009) and seeks to empirically examine the relationship between employee engagement, intrinsic motivation, and meaningfulness, as well as examine for possible age differences in these relationships.

Hypotheses

Chalofsky and Krishna (2009) demonstrated that intrinsically motivated individuals find meaning in their jobs, and meaningfulness is an essential component of employee engagement. Further, the emerging constructs of meaningfulness (sense of self, sense of balance, and the work itself) developed by Chalofsky (2003) are embedded in the employee engagement and intrinsic motivational constructs. The sense of self characterized by the extent of cognitive, emotional, and physical presence on the job is analogous to Kahn's (1990) theory of employee engagement. Based on the nature of meaningfulness as a necessary component of intrinsic motivation and employee engagement (Chalofsky, 2003; Chalofsky & Krishna, 2009), it can be expected that intrinsic motivation and work engagement depends on the extent to which individuals find their work meaningful. Figure 1 shows the hypothesized relationships among the factors tested in this research.

Hypothesis 1: Meaningfulness predicts intrinsic motivation. A positive relationship is expected: individuals who find their jobs more meaningful are likely to be more intrinsically motivated

Hypothesis 2: Meaningfulness predicts employee engagement. A positive relationship is expected: employees who find their jobs more meaningful are likely to be more engaged

Chalofsky and Krishna (2009) state that meaningfulness is a deeper level of intrinsic motivation that predicts employee engagement levels. As it's been previously demonstrated, engagement in an activity is determined by the extent of emotional, physical, and cognitive presence (Kahn, 1990). Thus, it focuses on the process of performance which would expectedly produce positive outcomes. Intrinsic motivation similarly is a function of the level of challenge, autonomy, and enjoyment that is present in the performance of an activity, which again is likely to produce desirable outcomes. Our research builds on the work of Chalofsky and Krishna by statistically examining the direct relationship between intrinsic motivation and employee engagement.

Hypothesis 3: A positive relationship is expected between intrinsic motivation and employee engagement. More specifically, those who are more intrinsically motivated are likely to be more engaged

When intrinsic motivation is high, both younger and older individuals are likely to find themselves engaged. But what is the impact when intrinsic motivation is low? Studies have shown that intrinsic values are stronger in older versus younger employees (Barnes-Farrell & Mathews, 2007; Inceoglu, Sergers, Bartman, & Vloeberghs, 2009). Thus, it is expected that when intrinsic motivation is low, younger individuals would elicit lower engagement levels than older employees; given that they place less value on the intrinsic components of their job. We seek to expand on the preceding hypothesis and propose that the relationship between intrinsic motivation and employee engagement will vary as a function of age. Further, engagement levels are less likely to be affected for older individuals when intrinsic motivational values are low.

Hypothesis 4: Age moderates the relationship between intrinsic motivation and employee engagement. Specifically, the level of employee engagement will differ by age depending on the level of intrinsic motivation.

METHOD

Participants

The sample consisted of 252 participants between the ages of 18 to 69 with an average age of 39 ($sd = 13.43$) and working a minimum of 20 hours in various organizations across the United States. Please refer to Table 1 for a summary of the demographic variables and Table 2 for a summary of the correlations among the variables described below, as well as the alpha reliabilities for all relevant scales.

Measures

Employee Engagement

Employee engagement was measured using the Engagement Survey developed by May et al. (2004). The 13 items produced by the authors were reflective of the three components of engagement presented by Kahn (1990): Emotional (4 items), Cognitive (4 items), and Physical (5 items) engagements. All items were rated on a Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

Intrinsic Motivation

The Work Preference Inventory (WPI) introduced by Amabile, Hill, Hennessey, and Tighe (1994) was used as a measure of intrinsic motivation. The intrinsic motivation primary scale included 15 items that were broken down to two sub-factors: Challenge (5 items) and Enjoyment (10 items). A 4-point Likert rating scale was used for all items ranging from 1 = never or almost never true for me, to 4 = always or almost always true for me.

Meaningfulness

Although no well-established measure of meaningfulness has yet been established in the research literature, a three-item scale of meaning was developed by Spreitzer (1995) and was used in the current study. A Likert rating scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree was used for this meaning scale.

Procedure

Participants were recruited via email, in person (using the snowball sampling technique), and through various internet based discussion boards such as yahoo groups in order to obtain an age diverse sample. The survey was administered via Survey Monkey. A link was provided via email to access the survey which began by presenting an informed consent followed by the questionnaire items. Participants were also asked to provide a variety of demographic information such as age, sex, ethnicity, terms of service, education level, and their relative position within the company. Participation in the research was voluntary.

RESULTS

Measurement Model Estimation and Tests of Hypotheses 1 – 3

A confirmatory factor analysis based on the obtained data was conducted using EQS software to examine the fit of the hypothesized model which is presented in Figure 1. The independence model which tests the hypothesis that all measured variables are uncorrelated was rejected, Robust χ^2 (36, $N = 214$) = 876.26, $p < .05$. Marginal support was found for the hypothesized model; the Satorra-Bentler Scaled Chi-Square was significant, χ^2 (25, $N = 214$) = 87.65, $p < .05$, Robust CFI = .93, RMSEA = .11.

The Wald and Lagrange Multiplier (LM) Tests were examined in an attempt to improve the model fit. The path predicting employee engagement (F3) from intrinsic motivation (F2) was not significant (standardized coefficient = .21, $p > .05$). The Wald Test indicated that by dropping this path, the chi-square value would increase by .96 points, $p = .33$. Similarly, looking at the original model, though the path from age (V1) to intrinsic motivation (F2) was significant (standardized coefficient = .12, $p < .05$), the LM test strongly suggested adding a path from age to meaningfulness (F1), which would drop

the chi-square value by 36.92 points, $p < .05$. When this path was added to the model, the path predicting intrinsic motivation from age was no longer significant. The model was thereby re-estimated with the recommended changes. The data show that Model 2 is a better fit than Model 1, the Satorra-Bentler Scaled Chi-Square associated with Model 2 was significant $\chi^2 (24, N = 214) = 35.49, p < .05$, Robust CFI = .986, RMSEA = .047. Refer to Figure 2 for the modified estimated model used and the accompanying coefficient values.

Based on these results, support was found for both our first and second hypothesis. Meaningfulness significantly predicted intrinsic motivation (standardized coefficient = .57, $p < .05$), indicating that for every standardized unit increase in meaningfulness, intrinsic motivation would increase by .57 units in the context of the model. Meaningfulness also significantly predicted employee engagement levels (standardized coefficient = .80, $p < .05$); providing support for our second hypothesis. More specifically, for every standardized unit increase in meaningfulness, employee engagement would increase by .80 units in the context of the model. Overall, 33% of the variance in intrinsic motivation and 64% of variance in employee engagement was explained by how meaningful one finds his/her job. Finally, the path predicting meaningfulness from age as recommended by the post hoc Lagrange Multiplier Test in Model 1 was significant (standardized coefficient = .46, $p < .05$), and explained 21% of the variance in meaningfulness. This relationship indicates that for every standardized unit increase in age, job meaningfulness would increase by .46 units in the context of the model (please refer to Table 3 for the unstandardized and standardized coefficients, as well as the residuals of the estimated model).

Test of Hypothesis 4

A sequential multiple regression analysis was conducted in order to address the fourth hypothesis which predicted employee engagement from age and intrinsic motivation. More specifically, it was hypothesized that age would moderate the relationship between intrinsic motivation and employee engagement such that a stronger relationship would be expected for older versus younger workers. Thus, age and intrinsic motivation variables were entered first into the model followed by the interaction term (age X intrinsic motivation) which was entered second into the model. Both independent variables were centered prior to creating the interaction term since no meaningful zero was present in the dataset.

Results from the sequential regression indicated that employee engagement can be significantly predicted from both intrinsic motivation and age, Multiple R = .469, R square = .220, Adjusted R square = .209, $F (3, 213) = 20.05, p < .05$ (Please refer to Table 4 for a summary of the sequential regression results). The fourth hypothesis was supported since the interaction term was also significant and explained an additional 1.7% of the variance in employee engagement once age and intrinsic motivation were taken into account, $F (1, 213) = 4.68, p < .05$. Accordingly, the strength of the relationship between intrinsic motivation and employee engagement can be predicted from age. Specifically, when intrinsic motivation is low (one standard deviation below the mean = 2.71), older individuals report higher engagement levels ($m = 3.62$) than younger individuals ($m = 3.02$). This mean difference ($3.62 - 3.02 = .60$) is more than twice as large as when intrinsic motivation is one standard deviation above the mean ($3.90 - 3.62 = .28$). Thus, when intrinsic motivation levels are high (one standard deviation above the mean = 3.31), older employees report slightly higher engagement levels ($m = 3.90$) than younger individuals ($m = 3.62$) in a model that also contains age and intrinsic motivation, $t (213) = 2.16, p < .05$. This interaction effect is depicted visually in Figure 3.

DISCUSSION

Based on Chalfosky and Krishna's (2009) conceptual framework, the current study sought to examine the relationship between meaningfulness, intrinsic motivation, and employee engagement in an attempt to better understand how these variables influence employee engagement levels at work. SEM results indicate that meaningfulness was a predictor of both intrinsic motivation and employee engagement. A significant positive relationship was found indicating that how meaningful individuals find their jobs can influence their intrinsic motivation and employee engagement levels. This finding

provides statistical evidence for the conceptual framework presented by Chalofsky and Krishna (2009), which proposed that meaningfulness is a deeper level of intrinsic motivation that influences employee engagement. However, the hypothesized relationship between intrinsic motivation and employee engagement was not supported. Lack of significance of this relationship indicates that intrinsic motivation does not predict how engaged one is on their job.

Our results are in line with recent literature which highlights the importance of job resources as an intrinsic motivational component that leads to higher engagement. More specifically, Spreitzer, Lam, and Fritz (2010) convey that high job demands such as time pressure, insecurity and work overload are associated with lower engagement or disengagement, while availability of job resources including social support and performance feedback increase engagement levels. As indicated by Schaufeli and Bakker (2004), job resources satisfy intrinsic motivation by fostering growth, learning, and development which in turn leads to greater employee engagement.

Using sequential multiple regression, support was also found for the moderating nature of age on the relationship between intrinsic motivation and employee engagement. More specifically, low intrinsic motivation was associated with considerably lower engagement levels in younger workers compared to older workers (as shown in Figure 3). In support of our findings, a recent study by McClure (2010) found a positive relationship between age and engagement, indicating that older workers were more engaged than younger workers. Further, the differences in engagement between the varying age groups were also significant (29 years or below/ 30-44/ and 45 and older). Our results indicate that older workers experience more engagement with their work whether or not intrinsic motivation is present on the job. However, the downfall is that engagement levels of current and emerging younger employees may be at risk based on how intrinsically motivating they find their jobs.

Theoretical and Applied Implications

The significance of our findings strengthens the conceptual framework of Chalofsky and Krishna (2009) by providing statistical evidence for meaningfulness as a predictor of intrinsic motivation and employee engagement. In support of our findings, Lips-Wiersma and Morris (2009) examined the various domains in the humanities through action research in order to identify constituents of meaningful work. An implication of their study was that meaningful work is a basic human need that leads to engagement in work by addressing the question of “why are we here?” They further suggest that meaning making is an intrinsic process emerging from the collective being of organizational members. The current study also contributes to widening the presently narrow research on meaningfulness and employee engagement as organizational constructs.

With respect to the current age trends in the workforce, our findings introduce how age differences may play a role on the relationship between intrinsic motivation and employee engagement. In doing so, we also fill the existing gap on the contradictory findings on the relationship between employee engagement and age (James et al., 2007; Pitt-Catsouphes & Matz-Costa, 2008; Robinson et al., 2004). In line with more recent findings (McClure, 2010), we demonstrate that older workers engagement levels are less influenced by the presence of intrinsic motivational work values. In contrast, younger employee’s engagement levels are more affected by low intrinsic motivation. From an organizational perspective, this is an important issue to consider, especially in hiring practices. Thus, when hiring younger employees for positions that require a greater level of engagement, lack of intrinsic motivational work components may be detrimental to performance on the job. Therefore, a greater focus on enhancing younger workers’ intrinsic motivation should be considered in organizational initiatives; a phenomenon that has not gained much attention thus far by business leaders.

From an organizational perspective, the most salient contribution of the current study would benefit organizational leaders by providing an understanding of how employee engagement levels can be influenced. Colvin and Boswell (2007) have described the importance of intrinsically motivating work values through the concept of interest alignment, which is defined as the alliance between the employees’ interest with that of the organization, its strategies, and goals. Their findings indicate that

when one's values and interests are in line with that of the organization, greater engagement in organizational strategies and goals can be expected.

Finally, the findings of the current study contribute to employee engagement levels relative to organizational functioning that go beyond that of task performance. Kanfer and Ackerman (2004) have found that training motivation declines as a function of age. One reason as stated by the authors is that older individuals are less intrigued by novel situations and are open to scenarios that build on their existing knowledge. It is suggested that training initiatives that build on existing knowledge and mastery skills (which are intrinsic work components) would be more welcoming to older employees; implying that situations which provide a sense of competence, a necessary component of intrinsic motivation, can enhance engagement in training for those activities.

Resistance and cynicism toward organizational change is another fundamental issue that has raised much concern among practitioners and academic researchers. Caldwell, Herold, and Fedor (2004) found that younger individuals portray more favorable characteristics of change processes than older employees. Thus, the findings of our study can shed light on the importance of incorporating intrinsically motivating strategies in change initiatives as a tool to induce engagement of older workers resistance towards change. For example, change that does not threaten one's sense of autonomy by allowing decision-making and flexibility can reduce resistance.

Future Directions

As noted by McClure (2010), work engagement is not based on the notion of "one-size fits all". Organizations wishing to boost work engagement among their employees must be willing to tailor programs that would address the needs of such groups, especially with regard to age differences as it pertains to the current study. Future research should examine whether age differences exist in emotional, cognitive, and physical engagement. For example, given the typical decline of cognitive functioning with age (Kanfer & Ackerman, 2004), are older employees subject to lower cognitive engagement than younger employees? Sonnetag, Dormann, and Dermouti (2010) have found that employee engagement is situation specific. Therefore, future research should aim at examining the relationship between employee engagement and intrinsic motivation *within* organizations. Assessing direct measures of intrinsic motivation and engagement is likely to produce more valuable results.

Finally, future research is necessary in order to establish meaningfulness as a concrete construct. Given an established measure of meaningfulness, researchers would be able to examine the relationship between meaningfulness and other organizational constructs such as turnover, loyalty, tenure, and citizenship behaviors, thus providing more empirical support for both the theoretical and practical importance of examining employee engagement in organizations.

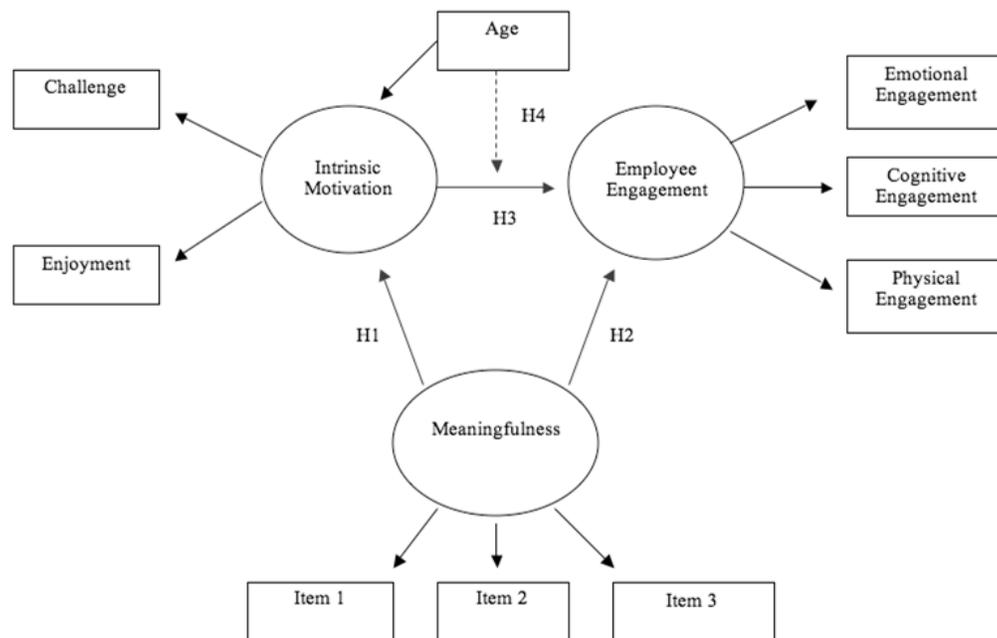
REFERENCES

- Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. (1994). The work preference inventory: assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology, 66*, 950-967.
- Avery, D. R., McKay, P. F., & Wilson, D. C. (2007). Engaging the aging workforce: The relationship between perceived age similarity, satisfaction with coworkers, and employee engagement. *Journal of Applied Psychology, 92*, 1542-1556.
- Barnes-Farrell, J. L., & Matthews, R. A. (2007). Age and work attitudes. In K. S. Shultz, & G. A. Adams (Eds.), *Aging and work in the 21st century* (pp. 139-162). New York: Psychology Press.
- Bates, S. (2004). Getting engaged. *HR Magazine, 49*(2), 44-51.
- Bureau of Labor Statistics. (2009). *Mass layoffs in July 2009* (USDL 09-0980). Washington, DC: United States Department of Labor.
- Caldwell, S. D., Herold, D. M., & Fedor, D. B. (2004). Toward an understanding of the relationships among organizational change, individual differences, and changes in person environment fit: A cross-level study. *Journal of Applied Psychology, 89*, 868-882.

- Chalofsky, N. (2003). An emerging construct of meaningful work. *Human Resource and Development*, 6, 69-83.
- Chalofsky, N., & Krishna, V. (2009). Meaningfulness, Commitment, and Engagement: The Intersection of a Deeper Level of Intrinsic Motivation. *Advances in Developing Human Resources*, 11, 189-203.
- Colvin, A. J. S., & Boswell, W. R. (2007). The problem of action and interest alignment: Beyond job requirements and incentive compensation. *Human Resource Management Review*, 17, 38-51.
- Dacey, M., Baltzell, A., & Zaichkowsky, L. (2008). Older adults' intrinsic and extrinsic motivation toward physical activity. *American Journal of Health Behavior*, 32, 570-582.
- Deal, J.J. (2007). *Retiring the generation gap: How employees young and old can find common ground*. San Francisco, CA: Jossey-Bass.
- Fleming, J. H., Coffman, C., & Harter, J. K. (2005). Manage your human sigma. *Harvard Business Review*, 83, 106–114.
- Horrigan, M. W. (2004, February). Employment projections to 2012: concepts and context. *Monthly Labor Review*, 3-22.
- Inceoglu, I., Sergers, J., Bartman, D., & Vloeberghs, D. (2009). Age Differences in Work Motivation in a Sample from Five Northern European Countries. *Journal of Personal Psychology*, 8, 59-70.
- James, J., B., Swanberg, J., E., & MacKechnie, S., P. (2007). *Responsive workplaces for older workers: Job quality, flexibility and employee engagement* (Issue Brief No. 8). Boston: Boston College, The Center on Aging & Work.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Kanfer, R., & Ackerman, P. L. (2004). Aging, adult development, and work motivation. *Academy of Management Review*, 29, 440-458.
- Kowalski, B. (2003). The engagement gap. *Training*, 40(4), 62.
- Lips-Wiersma, M., & Morris, L. (2009). Discriminating between 'meaningful work' and the 'management of meaning'. *Journal of Business Ethics*, 88, 491-511.
- Lockwood, N.R. (2003). The aging workforce: The reality of the impact of older workers and eldercare in the workplace, Society for Human Resource Management, Document retrieved on September 14, 2013 <http://www.shrm.org/Research/Articles/Articles/Documents/0304aging.pdf>
- Lun, J., & Huang, X. (2007). How to motivate your older employees to excel? The impact of commitment on older employees' performance in the hospitality industry. *Hospitality Management*, 26, 793-806.
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety, and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77, 11-37.
- McClure, T. K. (2010, April). *Driving Engagement among Older and Younger Workers- Not All Drivers are Created Equal*. Paper presented at the 25th Annual Conference of the Society for Industrial and Organizational Psychology, Atlanta, GA.
- Morrison, E. E., Burke, G. C., & Greene, L. (2007). Meaning in motivation: Does your organization need an inner life? *Journal of Health & Human Services Administration*, 30, 98-115.
- Pitt-Catsoupes, M., & Matz-Costa, C. (2008). The Multi-generational workforce: Workplace flexibility and engagement. *Community, Work, & Family*, 11, 215-229.
- Robinson, D., Perryman, S., & Hayday, S. (2004), *The drivers of employee engagement*. Institute for Employment Studies, Brighton.
- Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker, & M. P. Leiter (Eds.), *Work Engagement: A handbook of essential theory and research* (pp. 10-24). New York: Psychology Press.
- Seligman, M.E.P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York, NY: Free Press.

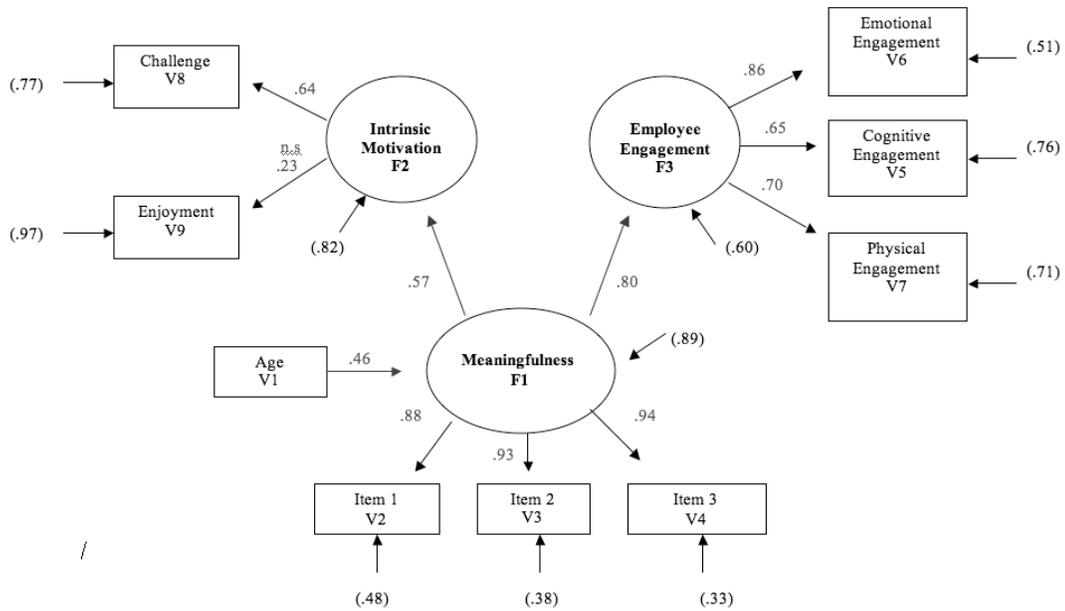
- Shultz, K. S., & Adams, G. A. (2007). In search of a unifying paradigm for understanding aging and work in the 21st century. In K. S. Shultz, & G. A. Adams (Eds.), *Aging and work in the 21st century* (pp. 303-319). New York: Psychology Press.
- Sonnentag, S., Dormann, C., & Demerouti, E. (2010). Not all days are created equal: The concept of state work engagement. In A. B. Bakker, & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 25-38). New York: Psychology Press.
- Sorenson, S., & Garman, K. (2013). How to Tackle U.S. Employee's Stagnating Engagement, *Gallup Business Journal*, Retrieved on September 11, 2013, <http://businessjournal.gallup.com/content/162953/tackle-employees-stagnating-engagement.aspx>
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 5, 1442-1465.
- Spreitzer, G. M., Lam, C. F., & Fritz, C. (2010). Engagement and human thriving: Complementary perspectives on energy and connections to work. In A. B. Bakker, & M. P. Leiter (Eds.), *Work Engagement: A handbook of essential theory and research* (pp. 132-146). New York: Psychology Press.
- United Nations Populations Fund. (n.d.). *Population ageing: A larger and older population*. Retrieved July 27, 2009, from <http://www.unfpa.org/pds/ageing.html>

FIGURE 1
HYPOTHESIZED MODEL: RELATIONSHIP BETWEEN INTRINSIC MOTIVATION, MEANINGFULNESS, AND EMPLOYEE ENGAGEMENT



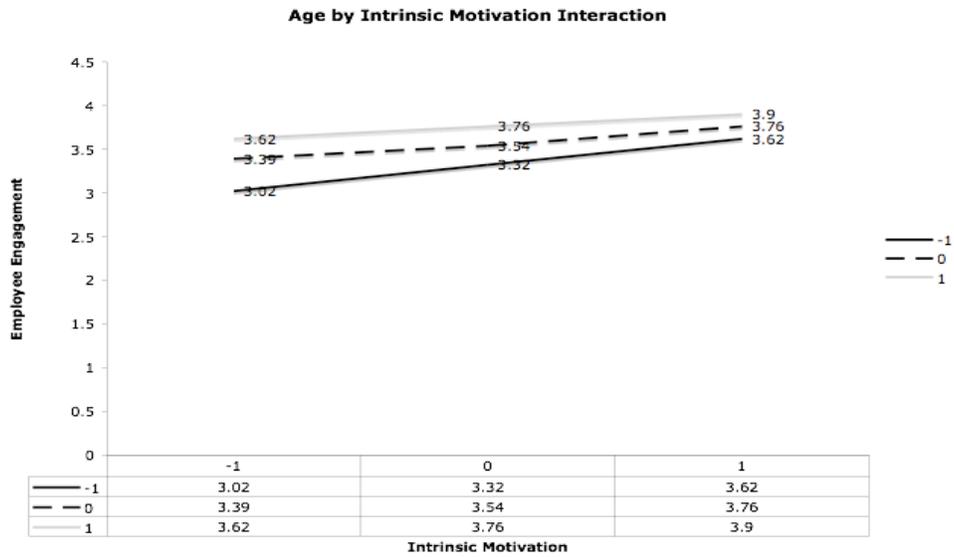
Note: The dashed line represents the 4th hypothesis that demonstrates the moderating effect of age on the relationship between intrinsic motivation and employee engagement. This hypothesis is tested using sequential regression.

FIGURE 2
ESTIMATED MODEL: RELATIONSHIP BETWEEN INTRINSIC MOTIVATION,
MEANINGFULNESS, AND EMPLOYEE ENGAGEMENT



Note: Residuals for the measured and latent variables are found in parenthesis

Figure 3. Relationship of employee engagement and intrinsic motivation as a function of age



Note: lines represent the moderator (Age)
 -1 = one standard deviation below the mean
 0 = mean age
 1 = one standard deviation above the mean

TABLE 1
SUMMARY OF DEMOGRAPHIC VARIABLES

	<i>Frequency</i>	<i>Percent</i>	<i>Mean</i>	<i>SD</i>
Gender				
Male	75	29.8		
Female	177	70.2		
Age			38.87	13.43
Under 30	82	33.2		
Between 30-44	99	40.1		
Over 44	66	26.7		
Ethnicity				
White	153	60.7		
Hispanic	42	16.7		
Middle Eastern	15	6.0		
Asian	14	5.6		
African American	13	5.2		
American Indian	1	.4		
Other	13	5.2		
Education				
PHD	34	13.5		
Professional MD/JD	6	2.4		
MA/MS	60	23.8		
BA	54	21.3		
AA or vocational	36	14.3		
Some college	49	19.4		
High School	8	3.2		
Other	4	1.6		
Position				
Executive	24	9.5		
Manager	44	17.5		
Supervisor	28	11.1		
Non-supervisor	98	38.9		
Other	57	22.6		
Tenure				
Years			8.4	8.45
Months			6.27	4.79

TABLE 2
CORRELATIONS AMONG PREDICTOR MODEL VARIABLES FOR COMPLETE DATA SET

Variables	1	2	3	4	5	6
1. Meaningfulness	.94					
2. Cognitive Engagement	.44**	.65				
3. Emotional Engagement	.69**	.54**	.71			
4. Physical Engagement	.54**	.54**	.57**	.71		
5. Challenge	.37**	.17**	.26**	.37**	.77	
6. Enjoyment	.16*	.11	.11	.11	.19**	.58

*Coefficient Alphas are shown in bold on the diagonal. * $p < .05$, ** $p < .01$*

TABLE 3
UNSTANDARDIZED AND STANDARDIZED COEFFICIENTS OF MODEL 2 FOUND IN FIGURE 2

<i>Parameter Estimate</i> (N = 214)	<i>Unstandardized</i>	<i>Standardized</i>	<i>Standardized Residuals</i>
<u><i>Measurement Equations</i></u>			
Meaningfulness \Rightarrow F1			D \Rightarrow .89
Item 1 \Rightarrow V2	1.00*	.88	E \Rightarrow .48
Item 2 \Rightarrow V3	1.09*	.93	E \Rightarrow .38
Item 3 \Rightarrow V4	1.06*	.94	E \Rightarrow .33
Intrinsic Motivation \Rightarrow F2			D \Rightarrow .82
Challenge \Rightarrow V8	1.00*	.64	E \Rightarrow .77
Enjoyment \Rightarrow V9	.20 n.s.	.23	E \Rightarrow .97
Employee Engagement \Rightarrow F3			D \Rightarrow .60
Cognitive Engagement \Rightarrow V5	1.00*	.65	E \Rightarrow .76
Emotional Engagement \Rightarrow V6	1.22*	.86	E \Rightarrow .51
Physical Engagement \Rightarrow V7	1.08*	.70	E \Rightarrow .71
<u><i>Construct Equations</i></u>			
Age (V1) \Rightarrow Meaningfulness		.03* .45	
Meaningfulness \Rightarrow Intrinsic Motivation		.19* .57	
Meaningfulness \Rightarrow Employee Engagement		.42* .80	

*Note: $\chi^2(24, N = 214) = 35.49, p < .05$, Robust CFI = .986, RMSEA = .047 n.s. = not significant * $p < .05$*

TABLE 4
SEQUENTIAL MULTIPLE REGRESSION OF AGE AND INTRINSIC MOTIVATION (IM) ON
EMPLOYEE ENGAGEMENT (EE)

Variable (N = 217)	Age	IM	EE (DV)	<i>B</i>	<i>SE B</i>	β
Step 1						
Age		.18*	.39*	.21*	.04	.34
IM			.30*	.15*	.04	.24
Step 2						
Age				.22*	.04	.35
IM				.15*	.04	.24
Age X IM				.08*	.04	.13
Intercept				3.54*	.04	
Means	38.87	3.0	3.54			R ² = .22 Adjusted R ² = .21
Standard deviations	13.43	.32	.62			R = .47* R square change = .017

Note: * $p < .05$