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# Quantitative Analysis of Impacts of Employee Engagement on Continuance and Normative Commitment

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QUANTITATIVE ANALYSIS OF IMPACTS OF EMPLOYEE ENGAGEMENT ON  
CONTINUANCE AND NORMATIVE COMMITMENT

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## QUANTITATIVE ANALYSIS OF IMPACTS OF EMPLOYEE ENGAGEMENT ON CONTINUANCE AND NORMATIVE COMMITMENT

### **ABSTRACT**

A positive relationship between employee engagement and affective commitment is already documented in the literature. However, we do not adequately know how engagement is associated with continuance and normative commitment. Using survey methodology we find that while engagement has a non-significant positive association with continuance commitment; it has a positive association with normative commitment. No negative association was found between engagement and continuance commitment. These results advance prior findings about the effect of employee engagement on different types of commitment.

Key words: Employee engagement; continuance commitment; normative commitment; structural equation modeling (SEM)

## INTRODUCTION

Nowadays, global competitiveness is a challenge for manufacturing, as well as services organizations. As more and more firms enter the competitive arena, they need to find better ways to formulate and implement strategies if they are to profit, and ultimately, survive. In this context, the human behavior is considered as one of the most important sources of competitive advantage (Arias-Galicia & Heredia-Espinosa, 2010). Researching job related attitudes and states of mind is crucial to understand, predict, and influence human behavior in such a way that it could buttress an organization's efficiency and effectiveness and, hence, competitiveness. Employee engagement and organizational commitment are two factors that current research suggests may influence human behavior at work in important and far-reaching ways (Mercado-Salgado & Gil-Monte, 2010; Robbins & Judge, 2009).

Employee engagement is important to cultivate because disengagement, or alienation, is central to the problem of workers' lack of motivation and commitment (May, Gilson & Harter, 2004). Employee engagement has been found positively associated with important job-related outcomes such as employee retention (e.g., Harter, Hayes & Schmidt, 2002) and affective, or attitudinal, organizational commitment (e.g., Saks, 2006). Engagement is a relatively new construct in organizational behavior research (Robbins & Judge, 2009), which might impact on different types of commitment. It is a motive for continuous study.

Organizational commitment is an attitude that comprises three dimensions: affective, continuance, and normative (Allen & Meyer, 1990). Although the association between engagement and affective commitment is already documented in the literature (e.g., Saks, 2006), the effect of engagement on continuance and normative commitment has not been adequately explored yet. Addressing the association between engagement and continuance and normative

commitment is important because these dimensions of organizational commitment are highly related to negative behaviors such as employee turnover and absenteeism (Allen & Meyer, 1996; Clugston, 2000). It is important to comprehensively understand organizational commitment and its dimensions because it might have a significant influence on a series of behaviors (e.g., creativeness and innovation) that are crucial to organizational success (Mathieu & Zajac, 1990; Clugston, 2000; Riketta, 2002).

In the context of the above stated research gap our purpose in this research is to investigate the following research questions: What is the association between engagement and continuance and normative commitment to the organization? We believe that answers to this question will help researchers and practitioners identify and better understand the factors that influence different types of commitment to the organization. In special, we hope our contribution helps practitioners to better understand the implications of engaging their task force in order to manage their employees' levels of commitment.

In the following section, we briefly review the literature on engagement and organizational commitment that leads to our research motives that there may be an association between engagement and continuance and normative commitment. Next, we summarize the literature review, propose research hypotheses, and draw a research model. Following, we elaborate on a case to propose three hypotheses, present the research methods applied to test research model and interpret the results. Finally, we conclude the paper with a discussion of research findings, limitations, and future research.

## **LITERATURE REVIEW**

### **Employee engagement**

Employee engagement is a common topic in the human resources consultancy market; however there are few academic studies about it (Robinson & Perriman, 2004). Engagement is desirable for organizations. Companies with an engaged work force have higher levels of customer satisfaction; additionally they are more productive and have higher profits than companies with a less engaged personnel (Harter et al., 2002; Li et al., 2004). The relationships between job satisfaction and organizational commitment and some influential factors of engagement have been extensively examined; however, the effects of engagement on commitment need further scrutiny (Little & Little, 2006).

Although engagement is a relatively new concept, research suggests that it may influence several work related attitudes. According to Khan (1990), employee engagement is the harnessing of organizational members' selves to their work roles. Engagement is a type of positive and fulfilling work related state of mind that is characterized by vigor, dedication and absorption (Schaufeli & Bakker, 2004). Engaged employees are more likely to express these characteristics emotionally, cognitively, and physically (Khan, 1990), in such a way that they drive personal energies into role behaviors and display themselves within the role (May et al., 2004), being as a consequence highly proactive (Sonnetag, 2003) and productive (Cattew, Flynn & Vonderhorst, 2007). Because engagement entails physical and emotional behavior, it can lead to the formation of work attitudes.

Existing research suggests that affective organizational commitment could be significantly affected by engagement. From the perspective of social exchange theory, Saks (2006) found that workers who feel that the organization gives them the opportunity to engage in their work roles tend to reciprocate with positive attitudes, such as affective commitment, toward the organization. Although previous research supports this finding (e.g., Demerouti, Bakker, de

Jonge, Janssen & Shaufeli, 2001), little is known about how engagement affects other types of commitment. After all, employees can be committed to the organization by other reasons different from affective feelings (Allen & Meyer, 1990).

### **Organizational commitment**

Organizational commitment is a popular construct in organizational behavior literature because it is assumed to influence almost any behavior that is beneficial to the organization (e.g. turnover; Clugston, 2000). Organizational commitment, however, is not a unitary concept, as there are different types of commitment to the organization. Early research on the concept by Etzioni (1961), suggests two basic types of commitment to the organization: normative and calculative. While the former refers to the workers' sense of moral obligation toward the organization, the later refers to the workers interest in the exchange of inducements for contributions with it. Porter, Mowday, and Steers (1982, p.27) synthesize prior research and define organizational commitment as the relative strength of an individual's identification with, and involvement in a particular organization. Allen and Meyer (1990), however, go further and make explicit that organizational commitment is a three dimensional construct; namely affective, continuance, and normative commitment.

According to Allen and Meyer (1990), affective, continuance, and normative commitment refer to different dimensions of the same phenomenon. Whereas the affective dimension refers to the employees' identification with, involvement in, and emotional attachment to the organization, the continuance one refers to the employees' recognition of the costs associated with leaving the organization. Normative commitment refers to the employees' sense of loyalty or moral obligation toward the entity for which they work. Solinger et al. (2008), nevertheless, argue that such three dimensions may be different types of commitment rather than

dimensions of the same construct. Given the possibility that affective, continuance, and normative commitment are conceptually different, it is not surprising that they could predict different behaviors (Solinger et al., 2008). These different types of commitment are also believed to be differently affected by several factors.

Affective, continuance, and normative commitment are differently related to some variables that are supposed to antecede organizational commitment. Empirical evidence indicates that while factors such as transformational leadership and role clarity have positive associations with affective commitment, they have a slightly negative or no association at all, with continuance commitment (Allen & Meyer, 1996; Meyer, et al., 2002; Essounga-Njan, et al., 2010). Part of the controversy surrounding the association between continuance commitment with other variables centers on the unidimensionality of the continuance commitment measurement scale. Beginning with McGee and Ford (1987), several studies have found that Allen and Meyer's original eight-item continuance commitment scale loads in two different factors: lack of alternatives and high sacrifices of leaving the organization. Taking this into consideration, Meyer et al. (2002) suggest retaining only the high sacrifices of leaving the organization. This suggestion, however, still does not entirely resolve the problems associated with continuance commitment, as it is still unclear whether the high sacrifices of leaving the organization refer to idiosyncratic sacrifices (e.g., energy, time invested) or to material sacrifices (e.g., benefits) associated with leaving one's organization. As an example, one of the items of continuance commitment "*too much in my life would be disrupted if I decided I wanted to leave my organization right now*" (Allen & Meyer, 1990, p.6) leaves unclear whether the disruption of leaving one's organization is due to personal or material sacrifices associated with leaving the organization.

Ambiguity concerning the type of sacrifices that continuance commitment reflects may influence the associations that continuance commitment has with other variables. For example, if it refers to the workers' idiosyncratic sacrifices of leaving the job, then it can positively relate with variables such as job satisfaction that refer to the workers idiosyncratic investments in the organization. Speculating on this point, it might be that the more satisfaction employees experience, the more they invest their energy performing in and out of role behaviors (Judge, Bono, Thoresen and Patton, 2001). If this speculation is plausible, the more an employee invests himself/herself in his/her job, the higher his/her perceived sacrifice of leaving his organization might possibly be. More research on how continuance commitment develops is an area that needs more scrutiny (Meyer et al., 2002).

Concerning normative commitment, Meyer et al., (2002) observe that this dimension usually receives even less research attention than continuance commitment. Part of this problem may be due to controversies associated with the normative commitment scale. Research has found a consistent positive association between affective and normative commitment (Allen & Meyer, 1996; Meyer et al., 2002), which makes some authors to question the validity of the normative commitment scale (Solinger et al., 2008). Allen and Meyer (1990; 1996) and Meyer et al., (2002) take issue with this view arguing that although affective and normative commitment are positively associated, it does not mean that normative commitment is redundant. They have found that normative commitment has weak associations with several variables that usually correlate strongly with affective commitment (e.g. distributive justice), which in turns reflects some discriminant validity of the normative commitment scale.

In the end, normative commitment seems to capture something different from affective commitment, and thus, may be affected by other factors that can influence the two other types of

commitment to the organization (Allen & Meyer, 1996). One factor, though, that appears to be more relevant to normative commitment than to the other commitment dimensions is socialization (Allen & Meyer, 1996; Meyer et al., 2002). However, if socialization can affect normative commitment, then it is possible to speculate that variables, such as engagement, that may affect socialization can also affect normative commitment. This is certainly a speculation, but below we elaborate on a case to test it empirically. The case below is in the spirit of existing research that explores several factors that can affect normative commitment (e.g. Wasti & Can, 2008).

## **Research model**

Before we elaborate on the possible associations between engagement and continuance and normative commitment to the organization, we draw a research model that emerges from the above literature review. Figure 1 shows that employee engagement can be either positively or negatively related to continuance commitment. It also shows that engagement may be positively related to normative commitment.

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Insert Figure 1 about here

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## **HYPOTHESES**

Conceptually, as indicated above, continuance committed individuals remain in organizations because they feel that they need to do so. An individual's feelings about need for remaining in the organization may be influenced by the sacrifices that s/he will likely incur if s/he leaves the organization (Allen & Meyer, 1990). The sacrifices that individuals have to do if they leave the organization may be more idiosyncratic (Meyer et al., 2002), or more material in nature.

Engagement and continuance commitment may be positively related. When people engage in their work roles, they self-employ in them (Khan, 1990). Engaged employees become physically involved in their tasks and connect emphatically with others in such a way that they display what they think and feel, their creativity, their beliefs and values, and their personal connections to others (Khan, 1990). Engaged employees harness their behaviors, cognitions, and emotions so high in their work performances that they fulfill their human spirit at work (Khan, 1990; May et al., 2004). Remarkably, if individuals harness their self so high in their jobs, then

leaving the organization for which they work may be a high sacrifice for them. Because of their fulfillment, engaged employees are likely to drive their energies into the job and dedicate long periods of time to it (Schaufely & Barker, 2004). Time and energy put into a job may be a form of idiosyncratic investment that individuals make in an organization and that can increase the perceived sacrifices that they may have to do should they chose to leave the organization (Meyer et al., 2002). Given that perceived sacrifices of leaving an organization can affect continuance commitment, then it is reasonable to expect the following hypothesis.

*H1. There is a positive association between employee engagement and continuance commitment*

Continuance commitment, however, can also refer to the material sacrifices of leaving the job. People may have, for example, benefits that make them to believe they are in the organization because they need to. These beliefs, however, can be attenuated by factors that can change individuals' attitudes (Allen & Meyer, 1996). An attitudinal change in this respect does not mean that, all of a sudden, people may not need to make material sacrifices if they leave the organization (e.g. loss their benefits), it refers only to the beliefs about it. After all, attitudes can influence perceptions and beliefs (Brief, 1998). As suggested by several authors, engagement can affect attitude creation and change (Robbins & Judge, 2009).

In this context, engagement and continuance commitment might be negatively associated. May et al., (2004) found that factors such as meaningfulness, psychological safety, and physical availability can increase the workers' levels of engagement. If engagement can change from a low to a high level according to these factors, so can continuance commitment. When meaningfulness, psychological safety, and physical availability change from a low to a high level some individuals may find themselves in engaged performances (Khan, 1990; May et al., 2004;

Wang et al., 2011). Performing the physical and emotional behaviors associated with engagement can lead to a change in attitudes. By a cognitive dissonance effect, attitudes can be created or changed when individuals find themselves performing a counter-attitudinal behavior, or a behavior towards which they do not already have an attitude (Brief, 1998). If individuals that are in organizations mostly because they feel that they need to, find themselves engaged in their job performances, then they have an incentive to adjust their attitudes in order to reduce the dissonance between their behaviors and attitudes (Festinger, 1957). In other words, they may have an inclination to justify, or rationalize, their engaged behaviors by changing their attitude toward the organization. They may start believing that material sacrifices are not the leading reason to remain in the organization.

However, the above discussion does not necessarily presume a strong negative association between affective and continuance commitment. Meyer et al., (2002) found meta-analytic evidence indicating a slightly negative association between affective and continuance commitment. Although, it may be possible that engaged employees will change their “I need to be here” beliefs associated with continuance commitment, to the “I want to be here” characteristic of affective commitment, it may also be possible that just the belief of being tethered to the organization due to weakened material sacrifices. As a result of this reasoning the following relationship is proposed:

*H2. There is a negative association between employee engagement and continuance commitment*

As suggested above, in the context of organizational commitment, some individuals feel committed to the organization by a sense of loyalty or moral obligation. Past research indicates that factors affecting people’s job socialization may influence normative commitment. Allen and

Meyer (1990) indicate that through socialization, employees may develop loyalty, or a sense of moral obligation toward the organization. Through socialization, individuals may learn what they ought to do to help their organization from what they believe most others in the group will actually do (Van Vugt & Hart, 2004). The social group can infuse into their members the “sink or swim” with the rest of the group type of loyalty (Van Vugt & Hart, 2004) that has been found affecting employees’ attitudes (Gibson, Invanchevich, & Donnelly, 1997). Engagement, however, may influence the workers’ socialization that can eventually increase their normative commitment to the organization.

Engagement and normative commitment can be positively associated. Khan (1990) argues that engaged employees are highly empathic toward others in the group. If engaged employees are emphatic, then they may be easy to socialize. Khan (1990) found that engaged employees spend a considerable amount of time in and out of their formal work schedule with other organizational members. As suggested by social information theory (Salancik & Pfeffer, 1978), the amount of time that workers spend together increases the chances that they have meaningful interactions through which they communicate the group’s accepted behaviors and expectations. Under this view, employees who socialize can also increase loyalty toward their organization as they develop social identification with others. Notably, because normative commitment has been found to be positively associated with socialization related factors such as support from co-workers (Taormina, 1999), then we formally expect the following hypothesis.

*H3. There is a positive association between employee engagement and normative commitment*

## **METHODOLOGY**

### **Research design and sample**

The research design is a non-experimental cross-sectional field study using survey methodology. The survey was sent to some faculty members and graduate students who have the expertise in this field, and it was revised and modified based on the comments and suggestions. Following that effort, the survey was administered to undergraduate students at a major university in the southwestern USA. College students were considered representative of the population of workers in general because they have employment experience, which is primary requisite to develop general attitudes and behaviors at work. All students in the sample had employment experience although not all of them were currently working (14 out of 116 students were not working). Students not currently working were asked to answer in accordance to their previous work experience. The sample consisted of 53 female and 63 male. While 36 out of 116 individuals had full time job, the rest had part time job. The response rate was 96.55%. The final sample, however, includes 112 observations because 4 out of 116 surveys were dropped due to highly incomplete information. Students were on average 23.99 years old (st. dev = 5.827) with an average of 2.519 years of work experience (st. dev = 2.6188).

The survey was conducted to the students with the permission of the instructor in different sessions during their class hour. All respondents were informed that the study had no foreseeable risks and that participation was completely voluntary and anonymous. Students choosing not to participate were given the choice of leaving the room or remaining quietly seated. Instructions were read by the surveyor in order to clarify the process and to ensure that there were no doubts about how to fill the survey out. The original survey contained 35 items, 24 about organizational commitment, 8 about employee engagement, and some demographic

questions. All items in the questionnaire (except those for demographic information) employed a seven point agreement-disagreement Likert scale, with 1 worded as strongly disagree and 7 worded as strongly agree.

## **Measures**

*Organizational commitment.* In this study, continuance and normative organizational commitment are measured using Allen and Meyer's (1990) scale. This scale consists of 8 items for each one of the organizational commitment dimensions (normative and continuance). We used these scales because previous studies report high reliability estimates (usually all dimensions' Cronbach's alpha > 0.7) and there is reasonable evidence of their construct validity (Allen & Meyer, 1996). Affective commitment was measured along with continuance and normative commitment to do a post-hoc analysis on it –although in this study we do not have a specific hypothesis involving it. We measured affective commitment by means of Allen and Meyer (1990) eight-item scale. All together, the survey contained 24 questions to gauge organizational commitment.

*Employee engagement.* Scale for employee engagement were borrowed and adapted from previous research (Saks, 2006). Five items are from Saks (2006) and the rest are from May et al.(2004). The scale of employee engagement consists of items pulled from two measures because it better reflects Khan's (1990) notion of engagement with the job. A sample item of job engagement is "I really throw myself into my job", which we believe it reflects the type of absorption than Khan conveys in his notion of engagement.

### **Adequacy of the measurement scales**

To ensure the unidimensionality of the commitment and engagement scales, principal component analysis using varimax rotation were conducted on the scales. Concerning organizational commitment, all the items that had cross-loadings above .40 were dropped. As presented in Table 1, seven items remain to measure continuance commitment and six for normative commitment. For the independent variable employee engagement, there are five items left. The reliability for the measurement of these three constructs is acceptable with Cronbach's alphas ranging from .721 to .840. The data is suitable for the principal component analysis with .749 Kaiser-Meyer-Olkin measures of sampling adequacy and a significant Bartlett's test of sphericity.

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Insert Table 1 about here

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It is important to note that concerning continuance commitment, the seven items kept in this study are precisely those that encompass the high sacrifices of leaving the job part of the scale. Items such as: *"I feel that I have too few options to consider leaving this organization"* (Allen & Meyer, 1990, p.7), are the ones that loaded in a separate factor, and hence dropped from the study. All the measuring scales had levels of skewness and kurtosis within the accepted ranges.

We assessed discriminant validity by the 95% confidence interval of the inter-factor correlation between any two constructs. None of their confidence intervals include 1.0 (Anderson and Gerbing, 1988). In addition, Cronbach's alpha values were used to assess the reliability and discriminant validity. Table 2 shows that all the Cronbach's alpha values on the diagonals are

higher than the off-diagonal correlation coefficients between constructs, which support the discriminant validity.

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Insert Table 2 about here

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Discriminant validity for the organizational commitment and engagement scales was further assessed at the item-level using a single-method, multiple-trait approach. The lowest correlation for a particular item and any other item within the factor was compared to correlations of that item and all items outside the factor. If the former correlation was lower than the latter, then a violation occurred (a violation occurs when the within factor correlation is lower than the between factor correlation). This analysis suggests that, in general, correlations within factors are greater than correlations between factors, as presented in Table 3. This indicates a reasonable level of discriminant validity for the measurement scales.

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Insert Table 3 about here

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## **RESULTS**

Table 2 contains also bivariate correlations among the research constructs. As shown in this table, continuance commitment has weak and non-statistically significant correlations with the other organizational commitment measure or with employee engagement. Normative commitment has a positive and statistically significant correlation with employee engagement, but it has no significant association with continuance commitment.

Given the support of sufficient reliability and validity of the measurement, Structural Equation Modeling (SEM) was used to examine the hypothesized relationships depicted in the research model. SEM could simultaneously analyze the measurement model and the structural model with addressing both measurement errors and hypothesis testing (Gefen et al., 2000). The goodness-of-fit of the structural equation model was assessed with emphasis on chi-square test statistics, root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), the non-normed fit index (NNFI), the comparative fit index (CFI), the goodness-of-fit index (GFI), and the adjusted goodness-of-fit index (AGFI). As presented in Table 4, the goodness-of-fit indexes imply a moderately good fit of the structural model with the empirical data.

Hypothesis 1 predicts a positive association between engagement and continuance commitment. This hypothesis is not supported, as indicated by the t-value of 1.70. However, the sign of the relationship is in the expected direction. Hypothesis 2 predicts a negative association between engagement and continuance commitment. As suggested by the structural equation model, this hypothesis is not supported. The relationship is non-significant. Hypothesis 3 predicts a positive association between engagement and normative commitment. This hypothesis is supported because the t-value of 3.33 indicates a significant positive relationship between employee engagement and normative commitment. The total effect of employee engagement on normative commitment is 0.31.

In addition to the structural equation model, we conducted two post-hoc analyses. In the first analysis we regressed affective commitment on engagement and we obtained a positive and significant association between them ( $t = 6.570$ ;  $p < .001$ ). In a bivariate correlation analysis, affective commitment was positively and significantly associated with normative commitment ( $r$

= 0.426;  $p < .01$ ), and non-significantly associated with continuance commitment (0.092;  $p > .10$ ).

As a second post-hoc analysis, some univariate analyses of variance (ANOVA) were conducted to test the effects of the categorical demographic variables (sex, currently working, and type of work) on the organizational commitment types and engagement. The only significant test ( $F = 8.185$ ,  $p < .05$ ) suggests that men in the sample (mean = 4.689) show higher levels of engagement than women (mean = 4.039). For this test, the assumptions of homocedasticity (Levine  $p$  value  $> .05$ ) and normality were met (Saphiro-Wilk  $p$  value  $> .05$ ).

## **DISCUSSION**

Heading calls for more fine-grained examinations of the relationship between employee engagement and organizational commitment (e.g., Robbins & Judge, 2009), in this study we focused on the possible effects that the former could have on two under-researched dimensions of the latter: continuance and normative commitment. While a positive relationship between employee engagement and affective commitment has been documented already, the association between engagement and continuance and normative commitment needs to be established clearly for various reasons. For example, the fact that these two types of commitment seem to refer to different phenomena than affective commitment does, and that they have been found to influence employee turnover, absenteeism and some other negative behaviors that harm organizational effectiveness.

Results of this investigation extend existing knowledge on the effect of employee engagement on continuance commitment. In the main, we find a non-significant positive association between both variables. At a broad level, this result indicate that when individuals engage in their work roles, they perceive such engagement as an investment that would be

sacrificed should they opt for leaving the organization, thus increasing their levels of continuance commitment. However, given the fact that we do not find a significant association, our evidence does not suggest that such effect is likely to exist in most cases. Notably, such a result is in line with some previous research that has found no significant associations between some attitude influencing variables and continuance commitment (Meyer et al., 2001).

In addition to the above, although as hypothesized here, a cognitive dissonance effect may weaken continuance commitment when engagement is high, results suggest that this may not be the case. Actually, our results indicate that individuals' beliefs about the material costs of leaving the organization are just not affected by a change in their attitudes. Even if engagement can increase the workers' feeling that they are in the organization because they want to do so, it may not change the feeling that they are also in the organization because they need to do so. This result, however, strengthens recent critiques to Allen and Meyer's three dimensional organizational commitment model because it seems that continuance commitment is indeed a conceptually different phenomenon that may not well represent an organizational commitment type. As it has been argued before, it is questionable whether continuance commitment represents a psychological state or attitude, or whether it just represents the extent to which the employee is "tethered" to the organization.

Regarding normative commitment, this study results extend prior findings in a significant way. Prior research has documented a positive association between engagement and affective commitment. One interpretation for this association is that individuals tend to reciprocate the organization if it allows them the opportunity to engage in their jobs. Because we find that employee engagement has a positive and significant effect on normative commitment, it is possible that individuals who feel engaged in their jobs also reciprocate the organization with loyalty and

a sense of moral obligation that makes them to remain with it because they feel that they ought to do so (normative commitment). However, another interpretation is possible. That is, as suggested in this study, engaged individuals tend to socialize more with others in the organization, which in turn, may increase communication among them concerning the loyalty expectations that the organization has from them. In this way, it is also possible that engaged individuals develop normative commitment.

Finally, our results support prior research suggesting a significant and positive association between the affective and normative dimensions of organizational commitment. In a post-hoc analysis we find this to be the case. Notably, even though such a finding might support Allen and Meyer 's (1990, 1996) argument indicating that individuals who develop positive feelings toward the organization may develop loyalty feelings as well, it could also support the critiques which cast doubt on the conceptual distinction between affective and normative commitment.

On the whole, results of this investigation indicate that it is worth for companies to invest in practices to increase the levels of employees' engagement. There are some other benefits that an engaged workforce can bring to organizations in addition to what the previous researches suggest. As engagement positively affects loyalty to the organization (normative commitment), investing in engagement will decrease turnover costs for companies since loyalty reduces employees' turnover (Schaufeli & Bakker, 2004). These recommendations are, for the most part, in accordance with most consultancy recommendations about the benefits of engagement for organizations. Whether engagement can also change the employees' beliefs about the sacrifices associated with leaving the entity for which they work, is an area that worth further research.

## **LIMITATIONS AND FUTURE RESEARCH**

This study has some limitations. Among such limitations, this study uses a cross-sectional design that is not suitable to test causality between engagement and organizational commitment. As suggested by exchange theories, engagement and organizational commitment may have a dynamic relationship over time where engagement can influence commitment and commitment can influence engagement in a recursive fashion. It can also be that it is organizational commitment which affects engagement rather than the other way around. A cross sectional design cannot help to explore these relationships, so future works that can employ longitudinal designs may help to shed more light on the relationship between engagement and different types of organizational commitment.

Replicating this study's finding in international contexts could help us to further comprehensively grasp the far-reaching implications of several job related attitudes and states of mind for firms and their human factors. Comparisons between developing (i.e., China and México) and developed contexts (i.e., U.S.A) would be especially interesting and contributing to the topic.

## **CONCLUSION**

The study of employee engagement is critical to understand organizational commitment and all the positive (and negative) effects that it could bring to modern organizations. However, the association between both factors seems to be far from straightforward. Not only does organizational commitment comprise three dimensions, but also such dimensions are likely to be affected by different antecedent factors, and in many different ways. As this study suggests, employee engagement, as an antecedent factor of organizational commitment, is likely to impact

continuance and normative commitment differently by means of different social and psychological processes.

On the whole, this findings of this study help to better understand the implications of employee engagement that could help practitioners to manage, and hopefully improve, their personnel's levels of commitment. As stated previously, a committed work force could be a key factor for organizations to improve their efficiency and effectiveness, thus to perform better and achieve a competitive advantage in the global arena.

Finally, given this study's limitations, we consider that future research is warranted in order to uncover the fascinating and important influence of employee engagement on such important phenomenon as organizational commitment.

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**Figure 1. Proposed research model**

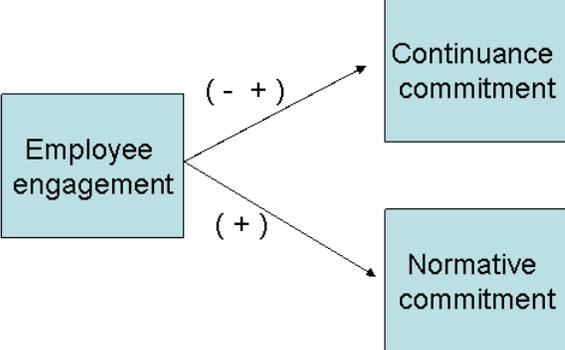


Table 1 - Principal component analysis results

Items	Factors		
	Employee Engagement	Continuance Commitment	Normative Commitment
EE3	0.829		
EE5	0.811		
EE7	0.750		
EE8	0.703		
EE2	0.698		
CC7		0.748	
CC3		0.709	
CC2		0.695	
CC6		0.685	
CC8		0.614	
CC5		0.567	
CC4		0.564	
NC6			0.730
NC1			0.720
NC4			0.665
NC3			0.611
NC2			0.582
NC7			0.507
Mean	4.301	3.979	4.167
Standard Deviation	1.351	1.249	1.050
Cronbach's Alpha	0.840	0.779	0.721
Eigenvalues	3.269	3.091	2.672
% of variance	18.162	17.172	14.847

Table 2 - Correlation matrix for constructs

	CC	NC	EE
CC	.779 <sup>a</sup>		
NC	.104	.721 <sup>a</sup>	
EE	.147	.355*	.840 <sup>a</sup>

<sup>a</sup> The diagonal elements are Cronbach's alpha values.

\* Indicates significance at  $p < 0.01$  level.



Table 3 - Item correlation matrix

	CC2	CC3	CC4	CC5	CC6	CC7	CC8	NC1	NC2	NC3	NC4	NC6	NC7	EE2	EE3	EE5	EE7	EE8
CC2	1.000	.560	.253	.239	.343	.404	.447	.042	.110	-.046	.220	.021	.115	.176	.205	.200	.121	.179
CC3	.560	1.000	.315	.366	.311	.319	.372	-.022	-.130	-.052	.074	.026	.065	.117	.263	.165	.088	.041
CC4	.253	.315	1.000	.269	.294	.405	.213	.131	.058	.030	.113	.100	-.102	.010	.072	.041	.107	.162
CC5	.239	.366	.269	1.000	.334	.250	.244	-.024	-.078	-.036	-.021	-.001	.139	.019	.050	.058	.010	.028
CC6	.343	.311	.294	.334	1.000	.539	.232	.078	-.118	.218	.117	.126	.125	-.090	-.033	-.050	-.037	-.063
CC7	.404	.319	.405	.250	.539	1.000	.417	.195	-.013	-.002	-.017	-.024	.013	-.125	-.036	.039	.067	-.066
CC8	.447	.372	.213	.244	.232	.417	1.000	.073	.040	.079	.175	.033	.132	.101	.152	.276	.138	.125
NC1	.042	-.022	.131	-.024	.078	.195	.073	1.000	.354	.254	.392	.451	.337	.130	.209	.156	.132	.118
NC2	.110	-.130	.058	-.078	-.118	-.013	.040	.354	1.000	.265	.305	.289	.196	.086	.121	.179	.210	.317
NC3	-.046	-.052	.030	-.036	.218	-.002	.079	.254	.265	1.000	.342	.271	.199	.031	.094	.033	.175	.158
NC4	.220	.074	.113	-.021	.117	-.017	.175	.392	.305	.342	1.000	.443	.311	.209	.319	.250	.243	.331
NC6	.021	.026	.100	-.001	.126	-.024	.033	.451	.289	.271	.443	1.000	.325	.055	.122	.153	.118	.215
NC7	.115	.065	-.102	.139	.125	.013	.132	.337	.196	.199	.311	.325	1.000	.165	.247	.341	.123	.284
EE2	.176	.117	.010	.019	-.090	-.125	.101	.130	.086	.031	.209	.055	.165	1.000	.487	.477	.367	.415
EE3	.205	.263	.072	.050	-.033	-.036	.152	.209	.121	.094	.319	.122	.247	.487	1.000	.634	.665	.512
EE5	.200	.165	.041	.058	-.050	.039	.276	.156	.179	.033	.250	.153	.341	.477	.634	1.000	.588	.525
EE7	.121	.088	.107	.010	-.037	.067	.138	.132	.210	.175	.243	.118	.123	.367	.665	.588	1.000	.512
EE8	.179	.041	.162	.028	-.063	-.066	.125	.118	.317	.158	.331	.215	.284	.415	.512	.525	.512	1.000

Table 4 - Structural equation modeling results

$\chi^2/df$	p-value	RMSEA	SRMR	NNFI	CFI	GFI	AGFI
172.68/133	0.012	0.048	0.075	0.94	0.95	0.85	0.81

Path	Standardized Loading	t-value <sup>a</sup>
Continuance Commitment		
CC2->CC	0.69	— <sup>b</sup>
CC3->CC	0.66	5.58
CC4->CC	0.48	4.22
CC5->CC	0.45	4.03
CC6->CC	0.57	4.90
CC7->CC	0.65	5.49
CC8->CC	0.57	4.97
Normative Commitment		
NC1->NC	0.64	5.05
NC2->NC	0.49	4.09
NC3->NC	0.44	3.77
NC4->NC	0.67	— <sup>b</sup>
NC6->NC	0.64	5.07
NC7->NC	0.50	4.17
Employee Engagement		
EE2->EE	0.57	5.69
EE3->EE	0.83	8.44
EE5->EE	0.78	— <sup>b</sup>
EE7->EE	0.76	7.81
EE8->EE	0.66	6.69
EE->CC	0.20	1.70
EE->NC	0.42	3.33

<sup>a</sup> t values are from unstandardized solution.

<sup>b</sup> t values are unavailable because the loadings are fixed for scaling purposes.