Abstract

Despite ample research on commitment in industrial settings, there has been no systematic attempt to investigate outcomes associated with teacher commitment. Therefore, the aim of this study was to examine the relationship between teacher commitment and psychological well-being in the workplace using questionnaires. Hong Kong teachers (N = 857) participated. Hierarchical regression analyses were used to investigate how the three aspects of commitment pertaining to the organization and occupation predicted relevant outcomes. Results showed that affective and normative commitment positively predicted psychological well-being in the workplace: interpersonal fit at work, thriving at work, feeling of competency, perceived recognition at work, desire for involvement at work, and job satisfaction. Continuance commitment was a negative predictor of some outcomes. Results of the current study provide support to Meyer’s 3 X 2 factor model of commitment. Findings are discussed in relation to the situation of teachers in the Hong Kong context.

Keywords: teacher commitment, psychological well-being, Hong Kong teachers
Commitment refers to the psychological bond a person feels toward an organization (Ebmeyer & Nicklaus, 1999; Firestone, 1996). Teacher commitment in particular reflects teachers’ sense of fidelity and adherence to the institution they serve. It has been found to be an important predictor of a myriad of educational and psychological outcomes (Day, 2008; Dee, Henkin, & Singleton, 2006; Fink, 1992). Extant research has shown that committed teachers put more effort in their jobs, focus on attainment of school goals, and stay in their schools. Commitment has also been found to be related to teaching performance, absenteeism, burnout and turnover. Moreover, commitment has been shown to exert an influence on students’ achievement gains and their attitude towards school (Ebmeyer, 2003; Firestone, 1996; Ingersoll, 2001; Park, 2005; Somech & Bogler, 2002; Tsui & Cheng, 1999; Weiss, 1999).

A number of studies concerning teacher commitment have been conducted (see, for example, Abd Razak, Darmawan, & Keeves, 2010; Chan, Lau, Nie, Lim, & Hogan, 2008; Choi & Tang, 2009; Dee, Henkin, & Singleton, 2006; Shin & Reyes, 1991; Henkin & Holliman, 2009; Sezgin, 2009b). However, most of these studies considered commitment as a generalized identification with either the school or the teaching profession and not as a multidimensional construct. Recent theorizing and research in industrial and organizational psychology has shown that commitment is a multidimensional construct which has differential impacts on various outcome measures (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002).

In this context there has been, to our knowledge, no large scale and systematic attempt within Hong Kong or elsewhere to map the multidimensional nature of teacher commitment and its relationship to multiple measures of teachers’ psychological well-being within the school setting. Yet it would seem that self-beliefs about why one is committed to teaching, and the multidimensional nature of teachers’ commitment to their schools, as well as to the
teaching profession as a whole, should have a strong influence on both teaching effectiveness and psychological well-being.

Extensive examination of how the multidimensional nature of teacher commitment relates to multiple measures of psychological well-being is important. Doing this provides us with a more nuanced picture of the dynamics of the multidimensional nature of teacher commitment and multiple measures of well-being (e.g., interpersonal fit at work, feeling of competency, perceived recognition at work, desire for involvement at work). Previous research has mostly clarified how commitment is associated with a narrower set of constructs (e.g., life satisfaction). Involving multiple measures of psychological well-being is an opportunity for us to understand clearly how they are influenced by the two objects of commitment, the organization and the occupation. This study makes an additional important contribution by exploring the relationship between commitment and its eventual outcomes (i.e., psychological well-being) among Hong Kong teachers. Setting the current investigation in a collectivist culture like Hong Kong different from the typical Western context allows us to expand our understanding about employees’ commitment beyond the Western context.

Allen and Meyer (1990) developed the three-component model of commitment which has been widely used in the Industrial and Organizational Psychology literature. Affective commitment is defined as the employee’s positive emotional attachment to the organization; continuance commitment, is defined as the employee’s attachment to the organization because of the perceived high costs of leaving the organization (such as retirement benefits, leave benefits), and normative commitment is defined as an employee’s attachment to the organization because of feelings of obligation, loyalty and duty. To further highlight conceptual differences among the three dimensions of commitment Allen and Meyer (1990, p. 3) said that “employees with strong affective commitment remain because they want to, those with strong continuance commitment because they need to, and those with strong normative
commitment because they feel they ought to do so”. Each of these has presumed differential effects on job satisfaction, employee psychological well-being and their intent to stay in their current profession and organisation.

While initially the focus was on commitment to the organization in which a person worked, in a subsequent refinement of their model, Meyer et al., (1993) added a second dimension, affective, continuance and normative commitment to the occupation, career or profession as a whole. They argued that organizational and occupational commitments are distinct constructs, with each contributing to the understanding of, and ability to predict work behavior. As Meyer et al., (1993, p 540) said adding occupational commitment “provides a more complete understanding of a person’s tie to his or her occupation” which may pave the way to understand differential commitment to organization (i.e., school) and occupation (i.e., teaching). In spite of this, the literature is never explicit as to the importance given to targets or foci of commitment: organization or occupation. Rather, the questions of which one influence the other is an open research question (e.g., Cohen, 1999, 2000, 2003; Hunt & Morgan, 1994, Morrow, 1993; Mueller & Lawler, 1999). To partly attend to this gap in the commitment literature, an ancillary objective of this investigation was to estimate the incremental contribution of both targets of commitment (organization and occupation) in the prediction of psychological well-being of HK teachers.

Psychological well-being

The teaching profession is a demanding and stressful occupation (Borg, 1990; Dunham & Varma, 1998; Kyriacou, 2001; Stoeber & Rennert, 2008). Research suggests that the stress in the teaching profession affects the general health, teaching career, students’ achievement gains, and well-being of teachers (Chan, 2006; Hakanen, Bakker, & Schaufeli, 2006; O’Connor & Clarke, 1990; Skaalvik & Skaalvik, 2009). Teacher stress and burnout have received increasing attention given their impact on a wide range of important outcomes such
as impairment of teaching quality, job dissatisfaction, work alienation, physical and
emotional ill-health, and teachers’ leaving the profession (e.g., Boyle, Borg, Falzon, &
Baglioni, 1995; Kyriacou, 2001; Vandenbergh & Huberman, 1999). In the Hong Kong
context, the study of Chan and Hui (1995) involving secondary school teachers indicated that
heavy workload, among other sources, was the major source of stress for teachers. If one is to
believe that students’ scholastic success is largely dependent on teachers’ quality and
well-being (see for example Good & Brophy, 2003; Helmke, 2001; Rowan, Correnti, &
Miller, 2002; Wentzel, 1998) then this must inform policies in the teaching-learning
environment because this will impact on teachers’ capacity to be effective teachers.

Specific to the teaching profession, the literature defines teacher well-being as “a
positive emotional state that is the result of a harmony between the sum of specific
environmental factors on the one hand and the personal needs and expectations of the pupils
vis-à-vis the school on the other” (Engels, Aelterman, Van Petegem & Schepens, 2004 p.
128). Psychological well-being at work (PWBW) is a construct describing an individual’s
subjective positive work experience, and is composed of five eudemonic dimensions:
interpersonal fit at work, thriving at work, feeling of competency, perceived recognition at
work, and desire for involvement at work (Dagenais-Demerais & Sovoie, 2011).

The Hong Kong context

In this study, we focus on Hong Kong teachers’ commitment and psychological
well-being. Thus, it might be helpful to present certain facts about the HK context to set the
stage for the current study. It is commonly thought that the Hong Kong teaching profession is
a highly stressful one (see Lau, Yuen, & Chan, 2005; Mo, 1991), with heavy teaching loads
(Titus & Ora, 2005), forced downsizing of schools, and potential staff redundancies. On the
other hand, the teaching profession is still very highly regarded and relatively well paid
(Education Bureau, 2013).
Given that the Hong Kong school context is characterized by strong inducements to teach (relatively high status and salary) and strong social obligations (the issues of not losing face and not giving-up because of discontent), it is quite likely that affective, normative, and continuance commitments may work differently than in some Western contexts (see for example Eisinga, Teelken & Doorewaard, 2010). More specifically, in Hong Kong, the teaching profession is regarded very highly and teacher’s salary is comparable to other professionals (Carnoy et al., 2009). This is very different from the situations in a number of Western countries. For example, in the USA, considerable shortages of teachers have been reported due to low teacher salary in comparison with other professionals (Carnoy et al., 2009).

Research on East-West cultural differences has shown that cultures differ in terms of their value emphases (e.g., Schwartz, 1999), power distance (e.g., Hofstede, 1980), and self-construals (e.g., Markus & Kitayama, 1991). In Eastern cultures, social conformity, interdependence and hierarchy are more highly valued. Given this, it is possible that continuance and normative commitment may also be positively related to psychological well-being in Hong Kong. While we know of no specific study testing the various components of commitment and their relationship to psychological well-being in the Asian culture, research on cross-cultural psychology research has shown that Asians are more likely to conform to societal norms and less likely to emphasize the value of agency, personal choice, and liking relative to their Western counterparts (Markus & Kitayama, 1991). They put a higher value on conformity to societal norms and on fulfilling one's obligations (Markus & Kitayama, 2010).

Given these societal differences, it is possible that normative and continuance commitment may be more strongly related to various aspects of psychological well-being than affective commitment. In other words, whether one likes or does not like the school one
is teaching in, or the teaching profession as a whole (affective commitment), is less likely to be a determining factor in how a Hong Kong teacher feels about teaching than continuance and normative commitments, and hence these two are more likely strongly related to psychological well-being than affective commitment. Because of culture associated with the East, we anticipated that continuance and normative factors may be more strongly related to various aspects of psychological well-being than affective commitment. In other words, whether one likes or does not like the school one is teaching in, or the teaching profession as a whole (affective commitment), is less likely to be a determining factor of Hong Kong teachers’ well-being than continuance and normative commitments, and hence these two are more likely strongly related to psychological well-being than affective commitment.

In much research on Western culture, affective commitment has been found to be the most dominant predictor of job performance and organizational citizenship. These results have been found in countries like Canada, United States, Hungary, and Italy (Eisinga, Teelken, & Doorewaard, 2010; Glazer, Daniel & Short, 2004; Meyer et al., 2012). In Hong Kong, it was anticipated that continuance commitment may be negatively related to both normative and affective commitment, as well as to psychological well-being because the reasons for remaining in the profession and job relate to external pressures such a preserving face, earning an income, preserving superannuation and so on. For example, a teacher may dislike teaching, and not be particularly concerned about normative obligations, but nevertheless remain in the profession because it is too hard to leave. In this case continuance commitment should be a negative predictor of, for example, thriving at work. In line with previous research, affective commitment is posited to be positively related to psychological well-being (e.g., Brunetto et al., 2013).

Examination of the relationships between psychological well-being and affective, normative and continuance commitment is, therefore, especially important for the Hong
Kong school system as it strives to provide the strongest teaching force while facing teacher
unrest due to perceived heavy workloads, and teaching redundancies through downsizing of
schools (Education Bureau, 2013). Commitment to work is operationalized in terms of
commitment to organization (such as a particular school) and commitment to occupation (that
is, the teaching profession). Psychological well-being is operationalized through five
dimensions: interpersonal fit at work, thriving at work, feeling of competency, perceived
recognition at work, and desire for involvement at work.

The present study

Using the three component model of commitment this study hopes to contribute to the
ongoing scholarly conversation on teacher commitment in a number of ways. First, it
attempts to identify the dimensions of teacher commitment and psychological well-being of
Hong Kong teachers by validating the Affective, Continuance and Normative Organizational
Scale (Allen & Meyer, 1990) and the Psychological well-being Scale (Dagenais-Desmarais &
Savoie, 2011) in an Asian setting specifically in the Hong Kong context. It was noted by
Meyer et al., (2002) in their meta-analysis of organizational commitment studies that an
important next step in establishing the generalizability of the three-component commitment
model is to do a cross-cultural validation in other countries outside North America, and
therefore research involving other cultural settings is warranted. The importance of
establishing the cross-cultural validity of instruments has been emphasized by a number of
researchers (see for example Hambleton, 2001; Maneesriwongul & Dixon, 2004; van
deVijver & Hambleton, 1996; van de Vijver & Hambleton, 1996; van de Vijver & Leung,
1997; and van de Vijver & Tanzer, 2004).

Second, this study will provide an understanding of the nature and level of psychological
well-being of Hong Kong teachers. This study will also examine the relationships of six
commitment predictors to the psychological well-being of Hong Kong teachers to determine
the relative salience of each. Finally, this study may partly address Meyer et al.’s, (2002) observation that more work is needed to understand the nature of normative commitment and whether it contributes uniquely to the prediction of work-related behavior and experiences.

Specifically, the study sets out to:

1. Establish the construct validity and reliability of the three-component model of organizational and occupational commitment, and the construct validity and reliability of the Psychological Well-being scales for a sample of teachers in Hong Kong;

2. Examine the nature and level of commitment and psychological well-being among a sample of teachers in Hong Kong; and

3. Examine the relationships among affective, normative and continuance commitment to organization (school) and occupation (teaching), and their relationships to psychological well-being.

Method

Participants

The participants of this study were 859 Hong Kong teachers from 15 primary and 15 secondary schools located in a cross section of educational regions in Hong Kong. Of these participants, 295 (34.3%) were males and 560 (65.2%) were females, (4 or .4% failed to indicate their sex). The mean age was 41.13 years ($\bar{X} = 9.08$). The average year of teaching experience was 15.15 with a range of 1-40 years.

In terms of family income, there were 13.50% whose income ranged from 15,000 – 29,999 HKD; 35.97% from 30,000 – 49,999 HKD and 47.26% from 50,000 – 79,999 HKD. The remaining 3.27% failed to indicate their family income. The high proportion (47.26%) of HK teachers in our data set received a monthly salary over 50,000 HKD which fall within the top 10% income group of Hong Kong. In general, these teachers received at least monthly salary of 15,000 HKD which is higher than the median monthly income of 11,000 HKD.
(Census & Statistics Department, 2012) and higher than 60% of the monthly salary of workforce in HK. In terms of highest education attainment, 2.44% of participants completed diploma or associate degrees, 51.29% completed college degrees, 44.47% completed master’s degrees, 0.6% received doctoral degrees while 1.8% did not indicate their highest education attained.

Measures and Procedures

Affective, Continuance, and Normative Commitment. An adaptation of The Affective, Continuance, and Normative Organizational and Occupational Commitment Scales (Meyer, Allen, & Smith, 1993) was used to measure teacher commitment. Commitment has three components: affective, continuance, and normative.

Affective – defined as the employee’s positive emotional attachment. Affective commitment has the following dimensions: affective commitment to occupation (3 items, e.g. “Being in the teaching profession is important to my image”; α = .80) and affective commitment to the organization (3 items, e.g. “I do not feel like part of the family at my school” (reverse scored); α = .85”).

Continuance – defined as the employee’s attachment due to the perceived high cost of leaving such as retirement benefits and leave benefits and lack of alternatives. Continuance commitment has the following dimensions: continuance commitment to occupation (3 items, e.g. “Changing professions now would be difficult for me to do”; α = .73), and continuance commitment to organization (3 items, e.g., “It would be very hard for me to leave my school right now, even if I wanted to”; α = .75).

Normative – defined as an employee’s attachment due to feelings of obligation, loyalty, and duty. Normative has the following dimensions: normative commitment to the occupation (3 items, “I feel a responsibility to the teaching profession to continue in it”; α = .67) and normative commitment to the organization (3 items “This school deserves my loyalty”; α = .67).
Note that the original scales had six items each (Meyer, Allen & Smith, 1993), but because the full survey contained a number of other dimensions measuring a wide range of teacher attributes it was decided to reduce the number of items used for brevity and ease of completion by the teachers. In order to reduce the number of items we selected the three highest loading items from the Meyer et al (1993) CFA analyses.

The original commitment to occupation scale was designed for nurses and each question referred to the nursing profession (Meyer et al., 1993). This original questionnaire was developed and tested in Canada. To make the questionnaire appropriate to teachers and schools a slight adaptation was made to the scales by adding the word ‘school’ or ‘teaching profession’ to the stems of the questions. This approach was consistent with the suggestion of Meyer et al., (1993). Teachers contributing to this study were invited to complete a paper and pen version of the survey. Teachers were also given the choice to answer the surveys in either English or Chinese. However, all teachers chose to answer the Chinese versions. The Chinese version of the scale had been translated from the English using forward and backward translation procedures (Maneesriwongul & Dixon, 2004):

**Psychological Well-Being at Work.** Psychological well-being at work is comprised of five dimensions (Dagenais-Desmarais & Savoie, 2011). These include *interpersonal fit at work* – perception of experiencing positive relationships with individuals interacting with oneself within the work context (5 items, e.g. “I value the people I work with”; α = .90), *thriving at work* – perception of accomplishing a significant and interesting job that allows one to fulfill oneself as an individual (5 items, e.g. “I find my job exciting”; α = .92), *feeling of competency* – perception of possessing the necessary aptitudes to do one’s job efficiently and have mastery of the tasks to perform (5 items, e.g. “I know I am capable of doing my job” ;α = .88), *perceived recognition at work* – perception of being appreciated within the
organization for one’s work and one’s personhood (5 items, e.g. “I feel that my work is recognized”; $\alpha = .88$), and desire for involvement at work – will to involve oneself in the organization and to contribute to its functioning and success (5 items, e.g. “I want to take initiative in my work”; $\alpha = .81$). This scale was developed in Canada and is a generic scale for all occupations.

The English version of both the commitment and psychological well-being scales had been translated to Chinese using forward and backward translation procedures (Maneesriwongul & Dixon, 2004). The $a priori$ measurement models estimated through confirmatory factor analyses (CFA) provided an adequate fit to the data: The Affective, Continuance, and Normative Organizational and Occupational Commitment Scales ($\chi^2 = 799.596, df=118, RMSEA=.08, TLI=.90, CFI=.91, NFI=.90, IFI=.91$); and Psychological Well-being Scale: ($\chi^2 = 1965.10, df=254; RMSEA=.08, TLI=.90, CFI=.93, NFI=.92, IFI=.93$).

A 7-point Likert-type scale was used for the self-report questionnaires ranging from 1 (strongly disagree) to 7 (strongly agree) with higher values indicating a greater degree of endorsement.

Statistical analysis

In order to establish construct validity evidence for the hypothesized six-factor structure of the Affective, Continuance and Normative Occupational and Organizational Commitment Scales and the five-factor Psychological Well-being scales for use with Hong Kong teachers we conducted a series of CFAs using AMOS 16 (Arbuckle, 2007).

Hierarchical regression analysis was conducted to determine the relationship between the six dimensions of teacher commitment and the various indices of psychological well-being. Teacher commitment to organization (affective commitment, normative commitment, continuance commitment) and to occupation (affective commitment, normative commitment, continuance commitment) were used as predictor variables while psychological
well-being (interpersonal fit at work, thriving at work, feeling of competency perceived recognition at work, desire for involvement at work) served as the criterion variables.

In order to control for any effects of gender, income and educational level, these three variables were entered at the first step of the regression equation as covariates. Following procedures used by Meyer, Allen and Smith (1993), we entered commitment to organization at the second step. At step 3, we entered commitment to occupation. We were interested to know whether commitment to occupation would account for a significant amount of variance in predicting psychological well-being of Hong Kong teachers after controlling for the effects of demographics and commitment to organization. Recall that in the study of Meyer et al., (1993), they controlled for commitment to organization to evaluate if subscales of commitment to occupation are independent constructs which can contribute uniquely in predicting work behavior. Therefore, in this paper we adopted a similar approach.

Results

Preliminary analyses

We checked the normality of data by first assessing the skewness and kurtosis values for each item. Absolute values of skewness and kurtosis beyond 2 and 7, respectively, may imply a lack of univariate normality (Finney & DiStefano, 2006). A look at the skewness and kurtosis values showed that there does not seem to be a violation of normality assumptions. We also checked for outliers by looking at the Mahalanobis distance (D2). Values that stand distinctively apart from other values can be considered outliers. No such outliers were found. Maximum likelihood was used as the method of estimation.

Descriptive statistics, reliability coefficients and correlations among study variables are shown in Table 1. Internal consistency for each scale was established by calculating Cronbach’s alpha coefficients. Subscales of the Affective, Continuance, and Normative Organizational and Occupational Commitment scales had alpha values ranging from .67
to .85. Subscales of the Well-Being scale had alpha values ranging from .75 to .92. The internal consistency of the scales were generally acceptable.

An examination of the means for the commitment scales indicated that the two highest ranked scales in order of mean size were normative commitment to the organization followed by normative commitment to the occupation. The two lowest ranked scales were continuance commitment to the organization followed by continuance commitment to the organization. The mean distribution of the commitment scales was quite wide ranging from 5.24 ($SD=.69$) for normative commitment to the organization and the lowest, 3.61 ($SD=1.21$) for continuance commitment to the organization.

Mean scores for the psychological well-being scales did not have a large range with the highest endorsed scale being thriving at work ($M=5.13; SD=.75$) and the least endorsed scale being perceived recognition at work ($M=4.62; SD=.63$).

An examination of the zero order correlations showed that continuance commitment to the organization was negatively related to all other commitment subscales (range -.40 to -.64, $p<.001$), and negatively related to all five psychological well-being scales (range -.24 to -.57, $p<.001$). Normative commitment to the organization was positively related to all other variables (range $r = .17$ to $r = .89$, $p < .001$) except for continuance commitment to organization to which it was negatively related ($r = -.24$, $p < .001$). Affective commitment to the organization was significantly and positively related to normative and continuance commitment to organization, affective and normative commitment to occupation, interpersonal fit at work, thriving at work (range .11 to .48, $p<.01$ to $p<.001$) and negatively related to continuance commitment to the occupation and feelings of competency (range -.13 to -.44, $p<.001$). Of particular interest is the negative relationship between continuance commitment to the organization and psychological well-being, and the positive relationship between continuance commitment to occupation and psychological well-being.
Confirmatory factor analyses for commitment and psychological well-being scales exhibited an adequate fit to the data (see Table 2). All factor loadings were significant at the $p<.001$ level (Byrne, 2010; MacCallum, Browne, & Sugawara, 1996). The fit indexes indicated that the five-factor model of psychological well-being and the six-factor model of teacher commitment provided acceptable better fit.

Regression analyses

To examine the relationships between affective, normative and continuance commitment to organization and occupation, and their relationships to psychological well-being, we conducted a series of hierarchical multiple regression analyses. To control for the effects of different demographic backgrounds of the teachers we entered three demographic variables (gender, income, and level of education) at the first step. These three variables accounted for a negligible amount of variance in the outcome measures of psychological well-being, $R^2 < .02$; $p < .05$. At step 2, we entered the subscales of the teacher commitment to organization (affective commitment, normative commitment, continuance commitment). These three variables were able to explain a significantly high amount of variance across the five outcome variables, ranging from 36% to 81.8%. An analysis of the beta weights indicates that across the five psychological well-being scales normative commitment to the organization was consistently the strongest predictor. Specifically at step 2, normative commitment to organization was the strongest predictor of all psychological well-being subscales: interpersonal fit at work ($\beta = .60$); thriving at work ($\beta = .79$); feeling of competency, ($\beta = .66$); perceived recognition at work, ($\beta = .66$); and desire for involvement at work, ($\beta = .76$). This was followed by affective commitment to the organization (predicting feeling of

URL: http://mc.manuscriptcentral.com/cedp E-mail: edpsych@ied.edu.hk
competency, ($\beta=.41$); perceived recognition at work, ($\beta=-.28$); and desire for involvement at work, ($\beta=-.35$). Continuance commitment to the organization negatively predicted interpersonal fit at work, ($\beta=-.41$); and thriving at work, ($\beta=-.22$); while positively predicting feeling of competency, ($\beta=.36$); and desire for involvement at work, ($\beta=.24$), $\Delta R^2<.82$, $p<.000$. In step 3, the subscales of the teacher commitment to occupation (affective commitment, normative commitment, continuance commitment) were entered. The addition of these variables contributed a small, yet significant amount to the overall variance explained by the equation across the five psychological well-being scales from 3.4% to 18.2% after controlling for the effect of demographic variables and organizational commitment, $0.03<\Delta R^2<.18$, $p<.000$ (refer to Table 3).

The full block of variables explained from 54.4% to 89.9% of the variance across the five outcome variables. Based upon the ranked order of standardized beta weights, normative commitment to the organization and normative commitment to the occupation were the strongest predictors of psychological well-being. Affective commitment to the organization and the occupation was a weak positive predictor of psychological well-being, although affective commitment to the occupation was the strongest predictor of interpersonal fit at work. Continuance commitment to the occupation was not a strong predictor except for desire for involvement at work. Continuance commitment was a negative predictor of interpersonal fit at work and thriving at work.

**INSERT TABLE 3 ABOUT HERE**

The order of entry of variables in hierarchical regression may provide different patterns of prediction (Ho, 2006). It is possible that, although we entered our blocks of variables following the logic of Meyer et al. (1993), the order of entry of the commitment variables blocks (organization and occupation) could be reversed with occupational commitment.
variables being entered first, followed by the organizational commitment variables (refer to Table 4). To examine the independent effects of the occupational variables when not controlling for the organization variables, we entered the occupational variables as a second block after the demographic variables. What clearly emerged from this analysis was the importance of normative values, with normative commitment to the occupation being the strongest predictor across all five psychological well-being variables (refer to Table 4). Indeed, across the five sets of analyses there were very few significant predictor variables other than for the normative commitment to occupation. Results of our regression analyses were complementary which provided consistent results.

INSERT TABLE 4

Discussion

The primary aim of this study was to investigate the relationships between Hong Kong teachers’ affective, normative and continuance commitments and their relationships to psychological well-being. We also wanted to examine the nature and level of commitment and psychological well-being among these teachers.

Our initial CFA analyses demonstrated that commitment is multi-dimensional, comprising three of elements: affective commitment (AC), normative commitment (NC) and continuance commitment (CC). Commitment can also be construed either as commitment to the organization or commitment to the teaching profession. Although we expected continuance commitment to be endorsed more strongly than affective and normative commitments, the ranking of the mean scores suggested otherwise. Continuance commitment was the least endorsed construct ($MO_{re} = 3.61; MO_c = 4.29$; refer to Table 1).

Normative commitment (that is an attachment to the organization and occupation because of feelings of obligation, loyalty and duty), was the most highly endorsed type of commitment. Affective commitment was also highly endorsed. Our finding is consistent with
the earlier finding of Fischer and Mansell’s (2009) meta-analysis which showed that normative commitment is more salient in societies with high degrees of collectivism, compliance to authority, and power distance which is the case for the Hong Kong Chinese culture (Hofstede, 1993; Hofstede, 2001; Hofstede & Bond, 1988; Tseng, 2004).

In line with our hypothesis, the zero order correlations showed that continuance commitment to the organization was negatively related to all five psychological well-being scales and to all other commitment scales. This indicates that to the extent one is motivated by continuance commitment the more negative the effect on psychological well-being, affect towards teaching, and normative commitment to teaching. This finding expands previous research on the negative relationship between continuance commitment to organization and job performance and organizational citizenship behavior but positive relationship with stress and work-family conflict (Meyer et al., 2002; Meyer et al., 2012).

Using hierarchical regression, we were able to demonstrate that both commitment to the organization and commitment to one’s occupation predicted psychological well-being even after controlling for demographic variables. In line with expectations, normative commitment to the organization was found to be the most important positive predictor of well-being. Normative commitment is believed to develop as the result of socialization experiences that underscores the appropriateness of remaining loyal to one’s employer (Dunham, Grube, & Castaneda, 1994; Meyer et al., 1993).

Normative commitments to organization and occupation were the most significant predictors of four out of the five psychological well-being scales: thriving at work, feeling of competency, perceived recognition at work and desire for involvement at work. Affective commitment to occupation was the strongest positive predictor of one of the indicators of well-being – interpersonal fit at work suggesting that feelings toward the teaching profession made them value harmonious interpersonal relationships.
Normative commitment may be triggered by employees’ experiences either prior to and following entry to work (Allen & Meyer, 1990; Meyer et al., 2012). While research findings among Western samples consistently suggest the importance of affective commitment in influencing organization- and employee-relevant outcomes (e.g., Eisinga, et al., 2010; Rhoades, Eisenberger & Armeli, 2001), our present findings demonstrate that for Hong Kong teachers, normative commitment was more important in influencing their psychological well-being. This suggests the importance of understanding the influence of cultural elements in the study of commitment to organizations and occupations.

Cross-cultural research has shown that normative commitment is more salient in collectivist and/or high power distance cultures (Fischer & Mansell, 2009; Hofstede, 2001; Meyer et al., 2012) such as Hong Kong while affective commitment is more salient in more individualistic cultures. Our result on the importance of normative commitment in determining the well-being of Hong Kong Chinese teachers suggests the importance of understanding commitment within the lens of cultural variability. Building on this, it may be conjectured that the promotion of loyalty and obligation to the workplace may enhance psychological well-being among Hong Kong teachers. Of course, the converse may be true; teachers with high levels of psychological well-being may also be the ones who develop stronger loyalty to their organizations. A longitudinal study is needed to test out the direction of effect.

We hypothesized that continuance commitment to the organization and the occupation would be significant negative predictors of psychological well-being because the reasons for remaining in the profession such as ‘changing professions now would be difficult for me to do’ are rather extrinsically oriented. In line with our hypothesis, continuance commitment to the organization was a negative predictor of interpersonal fit at work and thriving at work. However, it was a positive predictor of feeling of competency and perceived recognition at

URL: http://mc.manuscriptcentral.com/cedp E-mail: edpsych@ied.edu.hk
work. This ambiguity associated with continuance commitment shows that in Asian cultures, a more extrinsic type of commitment does not always lead to negative consequences. Culture may be an important moderator of the effects of continuance commitment.

Affective commitment to the organization did not predict interpersonal fit at work. It did however significantly and positively predict thriving at work and feeling of competency. It was a negative predictor of perceived recognition at work and desire for involvement at work, suggesting that those teachers who are positively emotionally aligned with their schools do not feel strong recognition and desire for involvement, a somewhat counter-intuitive finding. It may be possible that teachers who are high in affective commitment to their organization might already be highly involved in school-work endeavors. Therefore, they may not want to have any extra involvement or earn extra recognition from doing their school duties. Affective commitment to the occupation was generally a low order predictor; teachers having a high affective commitment to the occupation also had better interpersonal fit at work and feelings of competency. Although affective commitment was significantly related to well-being in terms of bivariate correlations (refer to Table 1) it was not a significant predictor of most of the well-being variables. Normative commitment is more salient than affective commitment in predicting the well-being of Chinese teachers.

The ‘take home’ message from these analyses is the important role played by normative commitment to the organization and occupation in Hong Kong teachers’ psychological well-being. Teachers who feel that their school deserves their loyalty, and feel that they owe a great deal to their schools and the teaching profession, have better psychological well-being. Normative commitment to both organization and occupation was, by far, the most important predictor. Hence, it is essential that school administrators provide teachers with a working environment that facilitates the development and maintenance of loyalty to both their schools and the teaching profession in general.
Conversely, continuance commitment can have a negative influence on psychological well-being; hence the inducements to continue with teaching need to go beyond the mere constraints people assume they may have in changing professions. Finally, it is interesting to note that affective commitment, in contrast to some Western findings (Eisinga et al., 2010), was not a significant predictor for most variables, perhaps indicating that whether one feels emotionally attached or not to one’s school or profession is not so relevant in a culture in which values of loyalty and responsibility are paramount. This finding may be understood within the context of a collectivist culture (see Triandis, 2001) where a person’s identity is defined by his or her group membership.

This study showed commitment to organization functioned as an important predictor of teachers’ psychological well-being. In this way the study extends the existing literature by focusing on the consequences of teacher commitment. We found that commitment to organization and occupation (especially normative commitment) has an important impact on the psychological well-being of Hong Kong teachers. Specifically, Hong Kong teachers who express commitment through a sense of loyalty and responsibility to their school and the teaching profession have enhanced psychological well-being. This has important practical implications since social relationships may be more malleable to change through intervention compared to more stable trait variables.

Limitations and Future Directions

We would like to acknowledge a number of limitations. First, the data were obtained from self-reports, hence, may be subject to social desirability response bias and common method variance. Second, we posited a relationship from commitment scales to psychological well-being and tested this through hierarchical multiple regression. However, the direction of effect is open to further investigation. For example, the direction of effects may be from commitment to psychological well-being, from psychological well-being to commitment, or
reciprocal. Longitudinal studies are needed to provide stronger evidence for the direction of the effects. Third, we relied exclusively on variable-centered approaches in this study and future research employing person-centered approaches could be applied.

Implications

This paper contributes to the existing literature by showing that both organizational and occupational commitment can be integrated in order to better understand the commitment of teachers. Rather than studying a single focus of commitment (i.e., organizations), we believe that a better grasp of commitment will be attained if commitment to occupations is also included in studies. While commitment theory has been widely tested in other industrial or organization settings this study provides evidence that commitment theory is also applicable to the educational context.

Building on these findings, there are some clear practical implications which may inform school administrators and teachers themselves. To enhance the psychological well-being of Hong Kong teachers, it is essential to nurture their normative and affective commitments which can be done by fostering a healthy and warm organizational climate in schools.
References


Carnoy, M., Brodziak, I., Luschei, T., Beteille, T., & Loyalka, P. (2009). Do countries paying teachers higher relative salaries have higher student Mathematics achievement? *Teacher Education and Development Study in Mathematics (TEDS-M).* International Association for the Evaluation of Educational Achievement (IEA).

Census & Statistics Department (2012). Hong Kong 2011 Population Census - Summary Results. Retrieved February 8, 2009 from

URL: http://mc.manuscriptcentral.com/cedp E-mail: edpsych@ied.edu.hk


URL: http://mc.manuscriptcentral.com/cedp E-mail: edpsych@ied.edu.hk


URL: http://mc.manuscriptcentral.com/cedp E-mail: edpsych@ied.edu.hk


http://dx.doi.org/10.1016/j.jsp.2005.11.001.


URL: http://mc.manuscriptcentral.com/cedp E-mail: edpsych@ied.edu.hk
Research Association, IL, Chicago, USA.

burnout and job satisfaction. Teaching and Teacher Education, 25, 518-524.

and professional commitment. Educational Administration Quarterly, 38, 555-557. doi:
10.1177/001316102237672.

appraisals, coping styles, and burnout. Anxiety, Stress, & Coping, 21, 37-53. doi:
10.1080/10615800701742461.

Education and Society in Hong Kong and Macao: Comparative Perspectives on
Continuity and Change. (pp. 73-85). Comparative Education Research Center, The
University of Hong Kong.

907-924. doi: 10.1111/1467-6494.696169.

Tseng, V. (2004). Family interdependence and academic adjustment in college: Youth from

contingency study with multi-level analysis. Educational Research and Evaluation, 5,
249-268. http://repository.ied.edu.hk/dspace/handle/2260.2/2976

European Psychologist, 1, 89-99. doi: 10.1027/1016-9040.1.2.89.


<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Affective commitment (Org)</td>
<td>- .48***</td>
<td>.11**</td>
<td>.28***</td>
<td>.43***</td>
<td>-.44***</td>
<td>.34***</td>
<td>.45**</td>
<td>-.13***</td>
<td>.03</td>
<td>-.01</td>
<td></td>
</tr>
<tr>
<td>2. Normative commitment (Org)</td>
<td>-</td>
<td>- .24***</td>
<td>.56***</td>
<td>.87***</td>
<td>.17***</td>
<td>.75***</td>
<td>.89***</td>
<td>.55***</td>
<td>.54***</td>
<td>.65***</td>
<td></td>
</tr>
<tr>
<td>3. Continuance commitment (Org)</td>
<td>-</td>
<td>- .62***</td>
<td>-.40***</td>
<td>-.64***</td>
<td>-.57***</td>
<td>-.40***</td>
<td>-.56***</td>
<td>-.24***</td>
<td>-.45***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Affective commitment (Occ)</td>
<td>-</td>
<td>- .68***</td>
<td>.31***</td>
<td>.80***</td>
<td>.62***</td>
<td>.41***</td>
<td>.46***</td>
<td>.47***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Normative commitment (Occ)</td>
<td>-</td>
<td>- .31***</td>
<td>.81***</td>
<td>.93***</td>
<td>.59***</td>
<td>.66***</td>
<td>.66***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Continuance commitment (Occ)</td>
<td>-</td>
<td></td>
<td>.34***</td>
<td>.27***</td>
<td>.59***</td>
<td>.27***</td>
<td>.60***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Interpersonal fit at work</td>
<td>-</td>
<td></td>
<td>.77***</td>
<td>.63***</td>
<td>.53***</td>
<td>.68***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Thriving at work</td>
<td>-</td>
<td></td>
<td>.50***</td>
<td>.51***</td>
<td>.62***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Feeling of competency</td>
<td>-</td>
<td></td>
<td>.46***</td>
<td>.65***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Perceived recognition at work</td>
<td>-</td>
<td></td>
<td>.57***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Desire for involvement at work</td>
<td>Mean</td>
<td>4.58</td>
<td><strong>5.24</strong></td>
<td>3.61</td>
<td>4.62</td>
<td><strong>5.09</strong></td>
<td>4.29</td>
<td><strong>4.85</strong></td>
<td>5.13</td>
<td>4.73</td>
<td>4.62</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>1.32</td>
<td>.69</td>
<td>1.21</td>
<td>.77</td>
<td>.67</td>
<td>.69</td>
<td>.79</td>
<td>.75</td>
<td>.60</td>
<td>.63</td>
</tr>
<tr>
<td></td>
<td>Cronbach’s alpha</td>
<td>.80</td>
<td>.67</td>
<td>.73</td>
<td>.85</td>
<td>.80</td>
<td>.75</td>
<td>.90</td>
<td>.92</td>
<td>.88</td>
<td>.88</td>
</tr>
</tbody>
</table>

Note: Bolded means are the two highest ranked means for commitment and psychological well-being; * p<.05, ** p< .01, *** p<.001
Table 2

Goodness of fit indices for the measurement models

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>RMSEA</th>
<th>TLI</th>
<th>CFI</th>
<th>NFI</th>
<th>IFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment Scale</td>
<td>799.596</td>
<td>118</td>
<td>.000</td>
<td>.08</td>
<td>.90</td>
<td>.91</td>
<td>.90</td>
<td>.91</td>
</tr>
<tr>
<td>Psychological well-being</td>
<td>1965.10</td>
<td>254</td>
<td>.000</td>
<td>.08</td>
<td>.90</td>
<td>.93</td>
<td>.92</td>
<td>.93</td>
</tr>
</tbody>
</table>

*Note: RMSEA = root mean square error of approximation; TLI = Tucker-Lewis index, CFI = comparative fit index; NFI = normed fit index, IFI = incremental fit index. Values of above 0.90 for TLI, CFI, NFI, and IFI are deemed acceptable, while RMSEA should be below 0.08 (Byrne, 2010).*
Table 3
Summary of hierarchical regression predicting dimensions of psychological well-being (standardized beta coefficients are shown)

<table>
<thead>
<tr>
<th>Psychological well-being</th>
<th>Interpersonal fit at work</th>
<th>Thriving at work</th>
<th>Feeling of competency</th>
<th>Perceived recognition at work</th>
<th>Desire for involvement at work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.061</td>
<td>-.051</td>
<td>-0.87*</td>
<td>.013</td>
<td>-.074*</td>
</tr>
<tr>
<td>Income</td>
<td>-.021</td>
<td>.101*</td>
<td>-.003</td>
<td>-.020</td>
<td>-.018</td>
</tr>
<tr>
<td>Highest education</td>
<td>.090*</td>
<td>.058</td>
<td>.066</td>
<td>.048</td>
<td>.045</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.003</td>
<td>.005</td>
<td>-.031</td>
<td>.046</td>
<td>-.022</td>
</tr>
<tr>
<td>Income</td>
<td>-.059**</td>
<td>.061</td>
<td>-.004</td>
<td>-.026</td>
<td>-.026</td>
</tr>
<tr>
<td>Highest education</td>
<td>.047**</td>
<td>.009</td>
<td>.045*</td>
<td>.025</td>
<td>.017</td>
</tr>
<tr>
<td>Affective commitment (Org)</td>
<td>.102***</td>
<td>.082***</td>
<td>.414***</td>
<td>-.278***</td>
<td>-.350***</td>
</tr>
<tr>
<td>Normative commitment (Org)</td>
<td>.599***</td>
<td>.794***</td>
<td>.655***</td>
<td>.661***</td>
<td>.764***</td>
</tr>
<tr>
<td>Continuance commitment (Org)</td>
<td>-.441***</td>
<td>-.221***</td>
<td>.363***</td>
<td>-.057</td>
<td>.236***</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.015</td>
<td>.008</td>
<td>-.014</td>
<td>.028</td>
<td>.008</td>
</tr>
<tr>
<td>Highest education</td>
<td>-.051**</td>
<td>.039**</td>
<td>-.023</td>
<td>-.053*</td>
<td>-.026</td>
</tr>
<tr>
<td>Income</td>
<td>.035*</td>
<td>-.006</td>
<td>.039</td>
<td>-.003</td>
<td>.012</td>
</tr>
<tr>
<td>Affective commitment (Org)</td>
<td>.026</td>
<td>.058**</td>
<td>.351***</td>
<td>-.433***</td>
<td>-.148***</td>
</tr>
<tr>
<td>Normative commitment (Org)</td>
<td>.301***</td>
<td>.374***</td>
<td>.466***</td>
<td>-.033</td>
<td>.512***</td>
</tr>
<tr>
<td>Continuance commitment (Org)</td>
<td>-.202***</td>
<td>-.129***</td>
<td>.371***</td>
<td>.142***</td>
<td>-.004</td>
</tr>
<tr>
<td>Affective commitment (Occ)</td>
<td>.339***</td>
<td>.069***</td>
<td>.217***</td>
<td>.120**</td>
<td>.011</td>
</tr>
<tr>
<td>Normative commitment (Occ)</td>
<td>.232***</td>
<td>.569***</td>
<td>.307***</td>
<td>.892***</td>
<td>.173***</td>
</tr>
<tr>
<td>Continuance commitment (Occ)</td>
<td>.001</td>
<td>.007</td>
<td>.086*</td>
<td>-.130**</td>
<td>.394***</td>
</tr>
<tr>
<td><strong>Step 1 change in R²</strong></td>
<td>F for change in R²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>013*</td>
<td>3.47</td>
<td>5.15</td>
<td>3.52</td>
<td>.70</td>
<td>2.18</td>
</tr>
<tr>
<td><strong>Step 2 change in R²</strong></td>
<td>F for change in R²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>729***</td>
<td>.818***</td>
<td>.600***</td>
<td>.360***</td>
<td>.602***</td>
<td>421.46</td>
</tr>
<tr>
<td><strong>Step 3 change in R²</strong></td>
<td>F for change in R²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>072***</td>
<td>.062***</td>
<td>.034***</td>
<td>.182***</td>
<td>.072***</td>
<td>.682</td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * p<.05, ** p<.01, *** p<.001

URL: http://mc.manuscriptcentral.com/cedp E-mail: edpsych@ied.edu.hk
Table 4
Summary of hierarchical regression predicting dimensions of psychological well-being (standardized beta coefficients are shown)

<table>
<thead>
<tr>
<th>Step</th>
<th>Psychological well-being</th>
<th>Interpersonal fit at work</th>
<th>Thriving at work</th>
<th>Feeling of competency</th>
<th>Perceived recognition at work</th>
<th>Desire for involvement at work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
</tr>
<tr>
<td>Step 1</td>
<td>Gender</td>
<td>-.061</td>
<td>-.051</td>
<td>-.087***</td>
<td>.013</td>
<td>-.074</td>
</tr>
<tr>
<td></td>
<td>Income</td>
<td>-.021</td>
<td>.101***</td>
<td>-.003</td>
<td>-.020</td>
<td>-.018</td>
</tr>
<tr>
<td></td>
<td>Highest education</td>
<td>.090***</td>
<td>.058</td>
<td>.066</td>
<td>.048</td>
<td>.045</td>
</tr>
<tr>
<td>Step 2</td>
<td>Gender</td>
<td>.023</td>
<td>-.002</td>
<td>-.003</td>
<td>.057*</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>Income</td>
<td>-.051**</td>
<td>.034</td>
<td>-.025</td>
<td>-.065*</td>
<td>-.045*</td>
</tr>
<tr>
<td></td>
<td>Highest education</td>
<td>.030</td>
<td>.012</td>
<td>.031</td>
<td>-.001</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Affective commitment (Occ)</td>
<td>.440***</td>
<td>.007</td>
<td>.075**</td>
<td>-.008</td>
<td>-.047</td>
</tr>
<tr>
<td></td>
<td>Normative commitment (Occ)</td>
<td>.497***</td>
<td>.928***</td>
<td>.502***</td>
<td>.650***</td>
<td>.566***</td>
</tr>
<tr>
<td></td>
<td>Continuance commitment (Occ)</td>
<td>.059**</td>
<td>.001</td>
<td>.458***</td>
<td>.080**</td>
<td>.443***</td>
</tr>
<tr>
<td>Step 3</td>
<td>Gender</td>
<td>-.015</td>
<td>.008</td>
<td>-.014</td>
<td>.028</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>Highest education</td>
<td>-.051**</td>
<td>.039*</td>
<td>-.023</td>
<td>-.053*</td>
<td>-.026</td>
</tr>
<tr>
<td></td>
<td>Income</td>
<td>.035*</td>
<td>-.006</td>
<td>.039</td>
<td>-.001</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>Affective commitment (Occ)</td>
<td>.339***</td>
<td>-.069***</td>
<td>-.217***</td>
<td>.120**</td>
<td>-.011</td>
</tr>
<tr>
<td></td>
<td>Normative commitment (Occ)</td>
<td>.232***</td>
<td>.569***</td>
<td>.307***</td>
<td>.892***</td>
<td>.173***</td>
</tr>
<tr>
<td></td>
<td>Continuance commitment (Occ)</td>
<td>.001</td>
<td>.007</td>
<td>.086*</td>
<td>-.130**</td>
<td>.394***</td>
</tr>
<tr>
<td></td>
<td>Affective commitment (Org)</td>
<td>.026</td>
<td>.058**</td>
<td>-.351***</td>
<td>-.433***</td>
<td>-.148***</td>
</tr>
<tr>
<td></td>
<td>Normative commitment (Org)</td>
<td>.301***</td>
<td>.374***</td>
<td>.466***</td>
<td>-.033</td>
<td>.512***</td>
</tr>
<tr>
<td></td>
<td>Continuance commitment (Org)</td>
<td>-.202***</td>
<td>.129***</td>
<td>-.371***</td>
<td>.141***</td>
<td>.004</td>
</tr>
<tr>
<td>Step 1 change in R²</td>
<td>.013*</td>
<td>.018*</td>
<td>.013</td>
<td>.003</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td>F for change in R²</td>
<td>3.47</td>
<td>5.15</td>
<td>3.52</td>
<td>.70</td>
<td>2.18</td>
<td></td>
</tr>
<tr>
<td>Step 2 change in R²</td>
<td>.768***</td>
<td>.840***</td>
<td>.524***</td>
<td>.445***</td>
<td>.610***</td>
<td></td>
</tr>
<tr>
<td>F for change in R²</td>
<td>955.50</td>
<td>1623.9</td>
<td>308.78</td>
<td>219.49</td>
<td>435.90</td>
<td></td>
</tr>
<tr>
<td>Step 3 change in R²</td>
<td>.033***</td>
<td>.040***</td>
<td>.119***</td>
<td>.097***</td>
<td>.064***</td>
<td></td>
</tr>
<tr>
<td>F for change in R²</td>
<td>48.46</td>
<td>107.22</td>
<td>94.36</td>
<td>57.67</td>
<td>54.47</td>
<td></td>
</tr>
<tr>
<td>Total R²</td>
<td>.814</td>
<td>.899</td>
<td>.656</td>
<td>.544</td>
<td>.682</td>
<td></td>
</tr>
</tbody>
</table>

Note: * p<.05, ** p<.01, *** p<.001