

THE COMPREHENSIVE FRAMEWORK OF SHARED CAPITALISM:  
SHORT-TERM AND LONG-TERM PERSPECTIVES

by

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## ABSTRACT OF THE THESIS

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This study aims to examine a mechanism of shared capitalism operation at the individual level. Building on both psychology and economic literatures, this study argues that shared capitalistic practices influence employees' feeling of ownership, which mediates the relationship between shared capitalism plans and employees' attitudes of job satisfaction and organizational commitment. Further, building on strategic HR management perspective and time perspective, this study suggests that two groups of shared capitalism--short-term oriented shared capitalism and long-term oriented shared capitalism – influence employees' psychological ownership and attitudes either additively or by substituting for each other. Empirical findings support that psychological ownership mediates the positive relationships between the two types of shared capitalism and employees' attitudes. Also the current study indicates that there are additive effects of the two types of shared capitalism on employees' psychological ownership, but there are substitutive effects on employees' job satisfaction and organizational commitment. Further discussions and limitations are explained.

Keywords: shared capitalism, long-term, short-term, employee attitudes, psychological ownership

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## INTRODUCTION

Directly involving employees in activities that contribute to organizational goals has been considered as increasingly important by both researchers and practitioners in the human resource (HR) management field. In the view of principal-agency theory, shared capitalism has been highlighted as a method to involve employees in activities increasing organization's performance. More specifically, the literature in shared capitalism suggests that employees' interests are aligned with employer's interests when they are given shared capitalistic practices. Consequently, employees have motivation to work harder and perform better to increase firm performance.

Shared capitalism refers to a diverse set of compensation practices that tie employees' pay or wealth to the performance of firms or work groups. Employee stock ownership plans (ESOPs), employee stock purchase plans (ESPP), 401(k)'s holding company stock, profit sharing, gain sharing, and stock options are examples of shared capitalism practices. As those forms of shared capitalism have become prevalent in the United States and other countries - 40.6% of employees in the United States were eligible for at least one form of shared capitalism according to General Social Survey data (Kruse, Blasi, & Park, 2010) - many scholars have attempted to investigate the mechanisms and effectiveness of shared capitalism.

The findings of prior research are promising for both practitioners and scholars as individual and organizational level outcomes have been upheld. Examples of individual-level outcomes are employees' attitudes about their jobs and organizations as well as individual behavior such as absenteeism or work effort (Long, 1980; Keef, 1998; Klein, 1987; Klein & Hall, 1988; Kruse & Blasi, 1997). At the organization level,

examples of positive outcomes include productivity (Kruse & Blasi, 1997) and the firm's survival rate (Park, Kruse, & Sesil, 2004). Employees' attitudes toward risk, aptitudes for teamwork, orientation toward collective action, and entrepreneurial ideas have been examined as moderators of the relationship between shared capitalism and its effectiveness (Hochner & Granrose, 1985).

Regarding methods of testing shared capitalism effectiveness, the studies on shared capitalism practices are conducted using one of two approaches: individual practices or indices. In the individual practice approach, only one form of shared capitalism has been investigated. For example, Klein (1987) and Rousseau and Shperling (2003) investigated ESOPs, Oyer and Schaefer (2005) tested stock options, and Kruse (1993) examined the effectiveness of profit sharing. On the other hand, the thermometer style index approach is employed for testing the collective effects of various shared capitalist practices. For example, Freeman, Kruse, and Blasi (2010) combined all shared capitalist practices into an index to test worker responses to shirking under shared capitalism.

Although the numerous findings of positive results are promising, both the individual and index approaches are problematic in terms of understanding the mechanisms underlying shared capitalism. In other words, neither approach explains the way in which the practices work together: they can operate in additive, substitutive, or synergistic ways. More specifically, although the impact of a specific practice can be tested by the individual approach, as this approach does not take the complementary or substitutive effects of other shared capitalist practices into account, the ability to explain the mechanisms behind the operation of shared capitalism may be limited. Further, this approach is limited in providing practical implications as many companies adopting shared

capitalism have more than one practice (35.8% of employees had more than two forms of shared capitalism in the GSS data; Kruse et al., 2010). While the index approach indicates the potential value of combining practices, it cannot explain how much each practice or subset of practices contributes to the outcomes. Accordingly, it would clearly be useful to identify which practices are most effective in different situations, and how the practices may work in combination.

One characteristic that may be important in the effects of shared capitalism plans is whether they are oriented to encourage short-term or long-term perspectives. Long-term and short-term programs may have different impacts on performance: long term practices such as ESOPs or stock options reward activities that raise stock price, which reflects future expected profitability of the company, while short term practices reward activities that aim to raise current profits or performance. Kruse, Blasi, and Park (2010) noted the possible advantage of combining short term practices with long term practices, as short term practices might facilitate day-to-day performance whereas long term practices would help the companies succeed in the long term through improved employees' positive attitudes (e.g., commitment, loyalty). While there have been a number of studies of both long-term and short-term practices, no study has carefully analyzed the effects of combining them. The current study aims to empirically test the contributions of each types of shared capitalism (short-term and long-term) and the contributions of those types of shared capitalism to outcomes.

In addition to exploring long-term and short-term perspectives of shared capitalism, this study employs one more concept that has become popular in ownership plan research, which is psychological ownership. Previous research on shared capitalism



has only a limited explanation for how the incentives depend on group performance work and how they are different from other compensation practices. The most compelling and widely accepted theory from economics is principal-agent theory which describes how shared capitalism may increase a firm's financial performance by aligning employees' interests with employers' interests. The direct link between employee pay and company performance, however, may be very weak, especially as the firm grows in size.

Consequently, traditional perspectives of motivation, commitment, or loyalty may not be enough to differentiate shared capitalism and other monetary compensation. The current study focuses on the psychological ownership perspective, expecting it to be a key variable that makes shared capitalism different from other incentives or compensation practices.

In sum, exploring these rationales for shared capitalism, the current study aims to advance the field by investigating: 1) the attitudinal outcomes of short-term oriented shared capitalism and long-term oriented shared capitalism (hereafter STSC and LTSC respectively), 2) the operational mechanisms of STSC and LTSC, and 3) the combined contribution of STSC and LTSC to attitudinal outcomes. The arguments are summarized in Figure 1.

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Insert Figure 1 about here  
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## **THEORETICAL DEVELOPMENT AND HYPOTHESES**

### **Short-term and Long-term Oriented Shared Capitalism**

Scholars have been proposing multiple criteria for deciding which period should be considered long term or short term for incentives. Condly, Clark, and Stolovitch (2003) categorize incentive programs into three periods: less than one month (short term), between one month and six months (intermediate term), and more than six months (long term). According to Westphal and Zajac (1994) and Milkovich and Newman (2002), long term incentive plans target increasing the long term performance of the company, consequently, long term might mean at least more than a one-year period. Narayanan (1985) proposes an even longer period of time, saying “long term compensation schemes are based on three- to five-year moving averages of some performance measure, like earnings (1483).” Considering prior research models, the criterion for dividing incentive plans into two time periods is tied to which period of performance determines the amount of money after encashment. The present study divides incentive practices into short term or long term based on whether the rewards are realized in less than one year or more than one year, in accordance with Westphal and Zajac (1994) and Milkovich and Newman (2002). Based on this, profit sharing and gain sharing are forms of short term incentive plans since the bonuses are given at least once per year while employee ownership plans (i.e. ESOP, ESPP, 401(k) and stock options) are generally long-term incentives (Kruse et al., 2010) because stock prices reflect long-term expectations of profitability and the returns from some forms of employee ownership cannot be obtained for a number of years due to vesting provisions.

### **Employees’ Attitudes**

By creating a closer link between employer and employee outcomes, shared capitalist practices have been theorized to improve employee attitudes. However, the evidence from previous studies is mixed. For example, Long (1980) showed negative or non-significant effects of shared capitalism practices. Further, with colleagues, Klein discovered that there were no significant relationships between ownership and employees' commitment and job satisfaction (Klein, 1987; Klein & Hall; 1988). With the sample of New Zealand managers, Keef's (1998) longitudinal analysis of employee shared ownership effectiveness proved that "employee shared ownership didn't result in expected improvement in attitudes" (abstract).

There are also, however, a number of studies that show shared capitalism contributing positively to employees' attitudes. For example, Tuckers, Nock, & Toscano (1989) found a higher level of commitment among employee-owners using a Canadian sample. Peterson and Luthans (2006) investigated the effects of profit sharing, and Arthur and Jelf (1999) studied the effects of gainsharing, finding that these plans are related to low turnover which is usually considered an outcome of employees' commitment, satisfaction, and motivation. Consistent with French and Rosenstein's findings (1982), the review by Kruse and Blasi (1997) finds that employees' attitudes are improved or at least unaffected under employee ownership.

Despite these mixed results, this study holds the argument that shared capitalism improves employees' attitudes, drawing from compensation and strategic HR management research. A number of studies in compensation have indicated that individual compensation practices or a compensation package are associated with employees' work motivation that is considered as indicator of job satisfaction or organizational commitment

(Igalens & Roussel, 1999). Further, based on accumulated findings of compensation studies, strategic HR management researchers suggest that each HR practices falls into one of the three HR domains that target employees ability (A), motivation (M) and opportunity (O), and compensation practices would be categorized in motivation domain (Lepak, Liao, Chung, & Harden, 2006). Consequently, regardless of the time span of shared capitalistic practices, this study assumes positive relationships among both STSC and LTSC and employee attitudes, which are job satisfaction and organizational commitment.

*Hypothesis 1: Both STSC and LTSC are positively associated with employees' job satisfaction.*

*Hypothesis 2: Both STSC and LTSC are positively associated with employees' organizational commitment.*

### **Psychological Ownership**

In the recent shared capitalism field, there is growing recognition of the importance of “feeling of ownership” as an important intervening variable between shared capitalism practices and their positive attitudinal or behavioral outcomes. According to Pierce, Kostova, and Dirks' (2001) research, psychological ownership refers to the “state in which individuals feel as though the target of ownership (material or immaterial in nature) or a piece of it is theirs” (p. 299). The most important nature of psychological ownership would be “the feeling of possessiveness” as Van Dyne and Pierce (2004) noted that “a sense of possession is the core of psychological ownership” (440). In attempting to distinguish other constructs (e.g., organizational identity) from psychological ownership, Pierce et al. (2001) conclude that ownership is based on “possessiveness” and this is distinctive from other similar constructs that are commitment (desire to remain), identification (defining

oneself using elements of an organization's identity) and internalization (sharing goals and values). They emphasize that psychological ownership answers the question "Is this organization MINE?"

How shared capitalism can increase psychological ownership can be explained by two theories, which are (a) residual right of control theory and (b) social identity theory. First, residual right of control refers to "the right to make decisions concerning the use of an asset" (Sesil, Kruse, & Blasi, 2001: 5). Milgrom and Roberts (1992) and Ben-Ner and Jones (1995) indicated that residual right of control should accompany a residual right of return to motivate employees for the most efficient outcomes. The "residual right to control" is usually related to "possessiveness" to some degree. Therefore, shared capitalism may be more effective when it combines the residual right of control with the residual right of return, creating a greater sense of psychological ownership whose underlying dimensions are control, self-identity, and belongingness.

Second, social identity theory may depict how shared capitalism shapes employees' psychological ownership. From the social identity perspective, an individual identifies himself or herself as a member of a particular group in an organization. When the individual identifies himself or herself as part of the group, he or she would perceive the group characteristics as his or her features and then be more likely to adopt and follow the norms and rules of the group (Ellemers, Gilder, & Haslam, 2004). There are several factors that derive individuals' social identification such as age, gender, or education. Besides the demographic factors, scholars have argued that shared capitalisms can also induce individuals' group identity by tying the individual rewards to the group performance (Welbourne & Cable, 1995; Kim & Gong, 2009). In other words, an individual begins to

identify his or her success as the group's or the organization's success when he or she is part of a shared capitalism plan. Then, individuals who have a sense of social identity may attribute the success of organization to themselves. Those processes may increase individuals' feeling of ownership.

Empirical evidence for the impact of psychological ownership is limited. Regarding the outcomes of shared capitalism, these issues have been investigated by a few studies, which suggest that psychological ownership may have a positive effect on employees' attitudes (e.g., job satisfaction, organizational commitment, and job involvement), and employees' behavioral outcomes (e.g., organizational citizenship behavior) including performance (Avey, Avolio, Crossley, & Luthans, 2009; Pierce, Kostova, & Dirks; 2003). While research has just begun, there are a few encouraging empirical findings. Studies on employee ownership implicate the mediating role of psychological ownership for the effectiveness of the ownership plan (e.g., Klein, 1987; Pierce, Reubenfeld, & Morgan, 1991). Scholars also assume psychological ownership would explain the operation of profit sharing (e.g., Coyle-Shapiro, Morrow, Richardson, & Dunn, 2002). Although few studies have explored whether stock options or gain sharing might generate psychological ownership empirically, due to the similar characteristics among shared capitalism practices (e.g. holding stock, sharing financial performance, and stressing the importance of employees' participation) stock options and gain sharing are also assumed to have a positive correlation with psychological ownership (Klein, 1987; Rousseau & Shperling, 2003). For example, borrowing Klein's (1987) arguments, Yanadori and Kang (2009) say that "[under long term incentives] by holding company

stock, employees become owners of the organization, and the sense of ownership increases their commitment to the organizations” (Klein, 1987: pp. 9- 10).

In sum, based on both the theoretical rationales for shared capitalism and empirical findings of previous research, it is hypothesized that shared capitalism increases employees’ perceptions of ownership, which improves employees’ attitudes. Thus, the present study suggests that psychological ownership mediates between shared capitalist practices and employees’ positive attitudes.

*Hypothesis 3: Both STSC and LTSC are positively associated with employees’ psychological ownership.*

*Hypothesis 4a: Psychological ownership mediates the relationship between both STSC and LTSC and job satisfaction.*

*Hypothesis 4b: Psychological ownership mediates the relationship between both STSC and LTSC and organizational commitment.*

### **Relationship between STSC and LTSC**

Scholars in shared capitalism have suggested that a mixture of long-term and short-term forms of shared capitalism would be beneficial by helping achieve higher gains in performance through a complementary relationship between long-term and short-term shared capitalist practices (Narayanan, 1985; Kruse et al. 2010). However, what types of mechanisms underlie the relationship between short-term and long-term shared capitalism has not been a focus of research in the compensation field. Most prior research has attempted to investigate just one type of shared capitalist practice or tested total effects by bundling shared capitalistic practices (e.g. Rosen, Klein & Young, 1986; Kruse, Freeman & Blasi, 2010).

Recently, the literature in strategic HR perspective has paid great attention to the relationships among HRM practices (e.g., Delery, 1998; Huselid, 1995). Especially, Lepak and colleagues (2006) illustrate that HR practices work together to build employees' abilities, motivation and effort, and opportunities to contribute in an additive, substitute, or synergetic manner. Building on their argument, Jiang and colleagues (2010) propose that the type of relationship would be determined by the target outcomes (e.g., ability, motivation and effort, or opportunity to contribute) of each HR practice and the dependence among HRM practices. Building on their argument, STSC and LTSC could have an additive or substitutive relationship in affecting employees' motivation and effort. On the other hand, Chadwick (2010) proposes that the relationship among HRM practices might be one of synergetic relationships: virtuous overlaps, independent effects, and efficient complementarities. Building on his assertion, if STSC and LTSC have distinctive high specialization but interact with each other, we can expect a complementary relationship between STSC and LTSC.

On the basis of the above arguments, this study assumes that the relationship among STSC and LTSC would be additive because not only STSC but also LTSC are expected to influence employees' psychological ownership, overall job satisfaction, and organizational commitment, which are all related to the motivation and effort domain of HR policy based on Jiang and colleagues' (2010) argument. Therefore, it would be hard to say they are highly specialized. Consequently, building upon Jiang and colleagues' (2010) propositions, the current study postulates that STSC may provide an incremental benefit to the prediction of psychological ownership and organizational commitment achieved by LTSC (i.e., additive affects) because they increase employees' job satisfaction and



organizational commitment by giving different types of ownership rights: with short term, the residual return right is given but with long term, employees are more likely to have some residual control rights. Similarly, LTSC may add incremental benefit to job satisfaction on the top of contribution of STSC.

*Hypothesis 5: STSC and LTSC have additive effects on employees' psychological ownership and employees' job satisfaction, and organizational commitment.*

### **Variation in effects of STSC and LTSC**

One of the remaining inquiries is which types of shared capitalism plans have a larger effect on employees' psychological ownership and attitudes when the relationship between them is additive. They might have equivalent effects on those individual level outcomes, but there have been some theoretical reasons and empirical findings that support variation in level of effects of STSC and LTSC on employees' feeling of ownership and attitudes. This study anticipates that STSC would have stronger effects on employees' attitudes than LTSC does, while LTSC would have a stronger influence on psychological ownership drawing from ownership perspective.

Relying on Laverty (1996), individuals are more likely to pursue actions securing short-term results than long-term results because of role ambiguity and uncertainty associated with the long term. This argument of short-termism may be supported by expectancy theory (Vroom, 1964) that posits the effort-performance relationship is much clearer in the short-term than in the long-term. Freeman and his colleagues (2010), in accordance with the theoretical argument, provided the empirical supports that profit sharing and gainsharing have stronger effects on individuals' anti-shirking intervention

than stock options and stock ownership do. Consequently, the current study anticipates that STSC would have stronger effects on employees' attitudes than LTSC does.

With regard to employees' psychological ownership, however, LTSC may have a larger effect than STSC. According to the psychological ownership literature, when individuals hold the rights to control their environments, they can feel a sense of efficacy and feeling of having place that lead to emergence of ownership feelings (Pierce et al., 2001). This argument would be more relevant to LTSC than STSC because holding stocks allows the employees the rights to participate in decision making. In other words, employees holding company stocks become shareholders who have some formal privileges to participate in company's decision making such as voting on the directors nominated by the board, voting on the major issues in the company, and transferring the ownership by selling or purchasing. Accordingly, LTSC based on stock ownership may affect individual's feeling of ownership more than STSC does. Therefore the current study suggests that LTSC has larger effect on employees' psychological ownership than STSC.

*Hypothesis 6: The positive effects of STSC on job satisfaction and organizational commitment are larger than the effects of LTSC.*

*Hypothesis 7: The positive effect of LTSC on psychological ownership is larger than the effects of STSC.*

## **METHODS**

### **Sample**

The data for analysis are from a National Bureau of Economic Research (NBER) project investigating shared capitalist practices based on employee surveys in fourteen companies. The data were collected from 323 workplaces over the 2001 to 2006 time

period. A total of 41,206 workers responded, with an average response rate of 53 percent. Each company participating in the NBER survey had one or more shared capitalism plans. All of the companies had employee ownership plans but the types varied (i.e., ESOPs, ESOP, Employee Stock Purchase Plans, and 401(K) with company stock). Eleven companies had profit sharing plans while five had stock option plans. To avoid the effects of any exogenous factors associated with year, the sample that participated in surveys in 2005 was employed for this study. After sorting out unusable observations (e.g., missing values in each shared capitalism plans), the final sample size was 17,255 employees of seven companies.

## **Measures**

***Shared Capitalism.*** The amount of employees' STSC and LTSC was collected from employees' reported information. STSC was measured based on employee report as the amount of profit sharing or gain sharing in proportion to fixed pay. To avoid the effects of extreme cases, the upper 1% of the ratio was trimmed following Kruse and colleagues' procedure (Kruse et al., 2010). LTSC was measured by the total dollar value of one's employer stock and stock options divided by fixed pay. As with STSC, the upper 1% of cases was trimmed.

A body of prior studies in compensation has used a measure of eligibility for certain types of compensation (e.g., 1 if an employee has a certain type of compensation, otherwise 0). It is also useful, however, to consider the actual amount of money that employees are receiving because, building on motivation theory, the amount of money would likely be related to the level of employees' satisfaction (Kuvaas, 2006). Further, the continuous measure may be more valid than scale, interval or dummy measures because it

may have less measurement error (Judge, Piccolo, Podsakoff, Shaw & Rich, 2010). In accordance with those arguments, this study adopted a ratio measure of shared capitalism: the amount of short term oriented and long term oriented shared capitalism divided by fixed pay.

***Employee attitudes.*** Job satisfaction and organizational commitment are measured by one and three items respectively. Wanous, Reichers, and Hudy (1997) proved through meta-analytic investigation that a single item scale of overall job satisfaction met the minimum level of reliability and the single item was strongly correlated with a multiple item scale which had been used for measurement in the job satisfaction studies. Accordingly, this study uses a single item that asks global satisfaction in job, which is “how satisfied are you in your job?”

As illustrated by Porter, Steers, Mowday, and Boulian (1974), organizational commitment indicates that an individual’s feeling of being tied to a certain organization: that is “the strength of an individual’s identification with and involvement in a particular organization (p.604).” The current study adopted three measures that were consistent with items that have been used in the literature. The three items are: (1) how much loyalty would you say you feel toward the company you work for as a whole; (2) how likely is it that you will decide to look hard for a job with another organization within the next twelve months (reverse-scored); and (3) to what extent do you agree with this statements, “I am willing to work harder than I have to in order to help the company I work for succeed” . The item factor loading were .73, .84, and .71, respectively. The first two questions were asked to report on 4-point scale, but the last question had a 5-point scale. All questions about

organizational commitment were standardized and combined into a single item. The internal consistency reliability for combining the three items into one scale was .64.

***Psychological ownership.*** As the relationship between shared capitalism and psychological ownership is studied at the individual level, the present study measured employee's perception of ownership as "how much do you feel you are an owner of this company?" This measure is in accordance with the measure in Pendleton and colleagues' (1998) study that assessed psychological ownership asking "the extent to which employees feel that they really are owners of the firm."

***Control variables.*** This study controlled for company, occupation, job level, tenure, age, educational background, risk disposition, union status and disability. As the majority of the sample came from one company, there could be a unique factor of the company that might influence the outcomes. Also, prior studies have demonstrated demographic variables are related to job satisfaction (e.g., Miceli & Lane, 1991). In addition, Klein and Hall (1988) posited that education level would be related to ESOP satisfaction, arguing that more educated people might understand the messages delivered via ESOP better than less educated people. Therefore educational background was controlled. Furthermore, the current study controlled for occupation and job level because those variables are related to the level of participation in decision making (Hrebiniak, 1974), which in turn facilitates employees' ownership feeling and attitudes. Union involvement was also controlled as some researchers (e.g., Kim & Sutton, 2009) expect that union involvement may trigger the positive effects of shared capitalism on organizational level outcomes assuming union's support for shared capitalisms. Disability was employed as a control variable because it may attenuate the relationship between

shared capitalism and employees' positive attitudes. Prior work in disability proves that people with disability tend to be less satisfied with their jobs and less committed to the organization as they have less support from their coworkers and supervisors (Schur, Kim, Han, Kruse, Adya, & Blanck, 2010). Therefore, disability was used in the analyses as a control variable. Finally, risk disposition was included in the analyses as a control because when an individual is risk averse, he or she is likely to have a low level of satisfaction with shared capitalism due to the potential for income variability (Milgrom & Roberts, 1992).

### **Analyses**

Ordinary least squares (OLS) regression analyses were used to test the main effects (hypotheses 1, 2, and 3) and hierarchical OLS regression analyses were employed to test the mediation effects and effects comparison (hypotheses 4 to 8). With the purpose of testing Hypotheses 7, STSC was multiplied by LTSC (multiplicative SC) and then employed in the hierarchical regression analysis.

## **RESULTS**

As all values were given by a single respondent, there is a possibility of common-method bias. To assess the extent of common-method bias, the present study employed Harman's one-factor test that posits that if there is a common-method variance, the variance in data can be explained by one common-factor (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). CFA with LISREL 8.7 (Jöreskog & Sörbom, 2004) was employed for Harman's one-factor test following Podsakoff and colleagues' (2003) procedure. As the current study includes variables that were measured by a single indicator (i.e., psychological ownership and job satisfaction), the current study assigned an independent estimate and fixed measurement error for those variables. To do so, Anderson and

Gerbing's (1988) recommended that an independent estimate for the error variance of the single indicator can be set as the value from prior research or the value of .95. Relying on Anderson and Gerbing's (1988) procedure, the current study set the factor loading with .95 for job satisfaction and psychological ownership. The error variance of single-indicator factors was set to  $(1-.90) \times \text{variance of measure}$ : .1687 for job satisfaction and .7545 for psychological ownership.

Some of the goodness of fit indices of the CFA for a one factor model ( $\chi^2 = 2043.91$ ,  $df = 14$ ,  $p < .001$ , RMSEA = .095, CFI = .93, IFI = .93, GFI = .93, AGFI = .93) were below than acceptable level (the acceptable level of RMSEA is near or below than .05 as Cohen and colleagues (2004) explanation). On the other hand, the five factor model (i.e., long-term and short-term shared capitalistic practices, psychological ownership, job satisfaction, and organizational commitment) yielded an acceptable or good level for all goodness of fit indices ( $\chi^2 = 543.34$ ,  $df = 8$ ,  $p < .001$ , RMSEA = .063, CFI = .98, IFI = .98, GFI = .99, AGFI = .97). The results indicate that the five factors are separate constructs and there is not a high likelihood of common method bias in this study.

Means, standard deviations, and zero-order correlations of all variables are presented in Table 1.

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 Insert Table 1 about here  
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### **Employees' attitudes and Psychological ownership**

In order to test the main effects of shared capitalism on employees' attitudes, three OLS regression analyses were performed. As seen in model 1 and model 2 in Table 2, both STSC and LTSC positively influenced employees' perception of ownership, supporting

hypothesis 3 ( $\beta = .074$  and  $\beta = .105$ ,  $p < .001$ , respectively). STSC affects both employees' job satisfaction and organizational commitment significantly as Model 3 in Table 2 and Model 8 in Table 3 indicate ( $\beta = .024$ ,  $p < .01$  and  $\beta = .053$ ,  $p < .001$ , respectively). Although the effect of LTSC on employees' job satisfaction is marginally significant ( $\beta = .016$ ,  $p < .10$ ), still the influence of LTSC on organizational commitment is statistically well supported ( $\beta = .034$ ,  $p < .001$ ). Therefore, hypotheses 1 and 2 are all supported.

### **Psychological ownership as mediator**

Hypothesis 4a and 4b predict that psychological ownership mediates the relationship of STSC and LTSC to job satisfaction and organizational commitment. To test the mediation, the procedure suggested by Baron and Kenny (1986) was employed. The results of hierarchical OLS regression in Model 5, 6, and 7 in Table 2 confirmed that psychological ownership fully mediates the effects of STSC and LTSC on job satisfaction. As seen in Model 10, 11, and 12 in Table 3, psychological ownership partially mediates the effect of STSC on organizational commitment whereas it fully mediates the relationship between LTSC and organizational commitment. All results support hypothesis 4a and 4b.

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 Insert Table 2 and 3 about here  
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### **Relationship between STSC and LTSC**

In hypothesis 5, additive relationships among STSC and LTSC were expected. As viewed in Table 4, LTSC cannot provide an incremental benefit to job satisfaction achieved by STSC ( $\Delta R^2 = .0001$ , *n.s.*). The results indicate that there is a substitutive relationship between STSC and LTSC when they target employee's job satisfaction.



For psychological ownership, STSC explains an incremental amount of variance over the that achieved by LTSC ( $\Delta R^2 = .003, p < .001$ ). Also, in terms of organizational commitment, LTSC explains an incremental amount over that achieved by STSC ( $\Delta R^2 = .001, p < .01$ ). It would be possible that the incremental effects of STSC and LTSC are attributed to synergetic effects of STSC and LTSC, so the test for synergetic effects was employed by creating multiplicative index of STSC and LTSC (Chadwick, 2010). The results of synergetic relationship tests (Table 5) indicate that STSC and LTSC do not affect psychological ownership synergistically ( $\beta$  of multiplicative SC =  $-.013, n.s.$ ). However, in terms of organizational commitment, the  $\beta$  of multiplicative SC showed as negative ( $\beta = -.023, p < .01$ ), which implies that the effects of STSC and LTSC largely overlap. Therefore, targeting organizational commitment, there is a substitutive relationship among STSC and LTSC. In sum, Hypothesis 5 is partially supported: there is an additive relationship among STSC and LTSC only for psychological ownership; otherwise, it was a substitutive relationship.

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 Insert Table 4 about here  
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### **Importance of STSC and LTSC**

To determine the relative importance of STSC and LTSC, dominance analysis suggested by Budescu (1993) was employed. Dominance analysis is the one of the most popular methods to test the contribution of each predictor to the total variance predicted by all predictors. Building on the procedure that described in LeBreton and Tonidandel's

(2008) paper, the current study calculated the contributions of STSC and LTSC in predicting psychological ownership, job satisfaction and organizational commitment by “average[ing] the  $\Delta R^2$  obtained by adding each predictor variable to all possible subsets of the remaining predictor” (p.330). To do so, (1) the  $\Delta R^2$  obtained by adding only STSC in the regression equation was calculated; and then (2) the  $\Delta R^2$  obtained by adding STSC in the regression equation containing LTSC was calculated. Finally, (3) the  $\Delta R^2$  scores were averaged. Similarly, (4) the  $\Delta R^2$  obtained by adding only LTSC in the regression equation was calculated; and then (5) the  $\Delta R^2$  obtained by adding LTSC in the regression equation containing STSC was calculated. Then (6) the total scores of  $\Delta R^2$  of LTSC were averaged. Table 4 shows the results.

According to the results in Table 4, even though the differences are minimal, LTSC was more important in predicting employees’ psychological ownership and job satisfaction (.035 and .0025 over .030 and .0015 respectively), while STSC was more important in predicting employees’ organizational commitment (.0135 over .0105). Therefore, hypothesis 6 was partially supported when hypothesis 7 was supported.

## **DISCUSSION AND CONCLUSION**

The findings of this study are summarized as follows. As expected, the current study found employees with STSC or LTSC have higher perceptions of ownership and have positive attitudes such as job satisfaction and organizational commitment. It also showed that employees’ job satisfaction and organizational commitment are shaped by employees’ psychological ownership that is created by STSC or LTSC. However, it was found that the mechanisms that influence the operation of STSC and LTSC on job satisfaction and organizational commitment are distinctive. More specifically, the

employees with STSC had job satisfaction only when they had a sense of ownership whereas there was negative pure effect of LTSC on job satisfaction controlling for psychological ownership, implying that high levels of LTSC made employees a) more worried about risk, or b) more dissatisfied with their level of input in decision-making, holding psychological ownership constant. Similarly, STSC influenced employees' organizational commitment not only through the employees' psychological ownership, but also directly. Also, employees with LTSC had organizational commitment only when they had psychological ownership. Moreover, each type of shared capitalism might provide unique predictions for psychological ownership (independently), but do not appear to work together for job satisfaction and organizational commitment.

The findings have several theoretical and practical implications. First, this study confirmed the effects of shared capitalism on employees' perception of ownership. The literature in shared capitalisms and shared capitalism has argued that those incentives can generate employees' feeling of ownership by providing a right for residual return and consequently blurring the boundary between employers and employees (Rousseau & Shperling, 2003). Controlling for other possible variables that help the employee have a sense of ownership such as job level or occupation, shared capitalism still has pure effects on employees' perception of ownership. The findings, thus, theoretically imply that shared capitalism enables employees to feel a sense of ownership, which influences employees' attitudes, behaviors, and finally individual and organizational performance.

Second, this study shows that the operation of shared capitalism is distinctive depending on the time orientation of shared capitalism practices. Prior studies have proposed that the effects of short-term oriented and long-term oriented on individual and

organizational level outcomes would be different, but there are few studies that have investigated the variations in those effects of shared capitalism. Finding the larger influence of STSC on organizational commitment, and the larger effects of LTSC on psychological ownership and job satisfaction, the current study provides practical implications for the real world. For example, an organization with limited financial incentive sources that wants to instill employees' feelings of ownership can make the decision to provide employees LTSC. However, if the organization wants to focus on increasing organizational commitment, it would be better to focus only on STSC.

Third, the present study also supports the theoretical argument of internal fit of strategic HRM literature empirically. The findings support the additive and substitutive relationships among STSC and LTSC when both target employees' psychological ownership, job satisfaction, and organizational commitment. Those findings may help practitioners in developing incentive systems by indicating that to facilitate employees' job satisfaction and organizational commitment, only one form of incentives (i.e., STSC) is needed.

The current study is not without limitations. First, there is a possibility of common method bias in the data because all items were answered by individual employees. However, because the theories were established at the individual level, and the level of analysis was also individual level, employees were the most appropriate respondents for the current study as they are the most knowledgeable about their feelings and perceptions. In this case, common method bias may not be a serious problem in this study. Nevertheless, employing multiple respondents to assess the theoretical model is strongly recommended for future research.

Second, the measures of employees' psychological ownership and job satisfaction were single item measures, which may result in measurement error in the data. However, although they are single measures, they assess the critical and global dimension of employees' psychological ownership (i.e., the perception of possession of the organization) and job satisfaction (i.e., general satisfaction with job). Furthermore, some studies provide favorable support for single-item measures arguing that the reliability of single-item measure is as good as multiple-item measures (e.g., Wanous et al., 1997). Therefore, the error created by measuring variables with a single item may not be serious for this study. However, to enhance the reliability, future research should adopt multiple-item measures.

Third, this study investigated just one part of the operation of shared capitalism rather than shedding light on the whole process. Adopting the attitudinal variables as outcome variables provides limited information about the effects of shared capitalism as the picture of process from employees' attitudes to individual and organization performance are missing. However, prior studies consistently support that there are strong causal relationships among attitudes, behaviors and performance (e.g., Harter, Schmidt, & Hayes, 2002 and Weigel & Newman, 1976). Furthermore, a number of researchers have emphasized using employees' attitude measures in addition to individual and organizational performance measures, because employees' attitudes can be conducive to long-term performance and organization sustainability (Awasthi, Chow, & Wu, 2001; Youssef & Luthans, 2007). Therefore, it would be appropriate to use employee attitudes to predict the long-term performance of shared capitalism. To conduct more profound investigation, however, future research should employ various types of outcome variables

that assess behaviors and performance such as organizational citizenship behavior, absenteeism, performance ratings, innovation, and so on. Especially, as the theoretical model of the current study emphasizes the variation in influence of shared capitalistic practices based on differences in time orientation, adopting measures that assess short term performance and long term performance will greatly contribute to the literature.

In conclusion, this study finds that short-term oriented and long-term oriented shared capitalism affect employees' sense of ownership, job satisfaction, and organizational commitment independently or interdependently. The current study contributes to our understanding of shared capitalism effects on employees' attitudes and psychological ownership, and contributes to strategic HRM literature by indicating additive, substitutive, and synergetic relationships among shared capitalism plans. Also, the current study contributes to improvement in designing and implementing of shared capitalistic practices in the real world.

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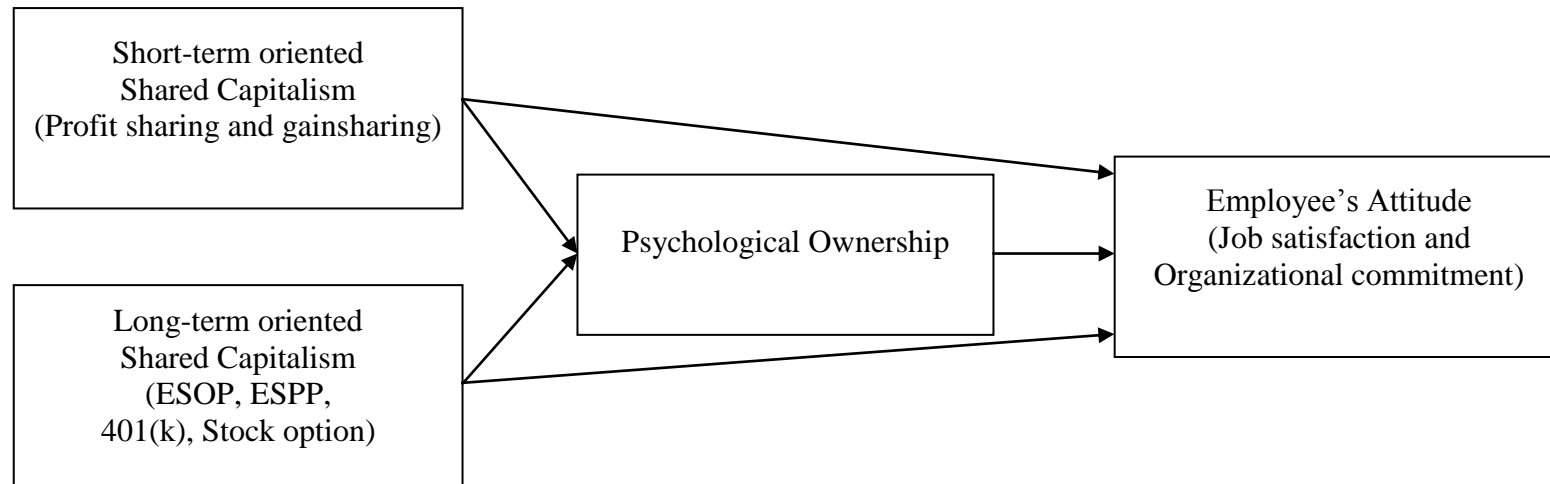
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**FIGURE 1 A Theoretical Model of the Operation Mechanism of Short-term and Long-term Oriented Shared Capitalism.**

**TABLE 1 Descriptive Statistics and Correlations**

Variables	M	s.d.	N	1	2	3	4	5	6	7	8	9
1. Company <sup>a</sup>	13.09	1.87	17,255									
2. Production	.52	.50	17,227	.095								
3. Administrative staff	.06	.24	17,227	-.109	-.265							
4. Profession/Technician	.24	.42	17,227	-.030	-.574	-.145						
5. Sales	.04	.20	17,227	-.052	-.212	-.053	-.114					
6. Customer Service	.03	.16	17,278	.081	-.171	-.043	-.092	-.034				
7. Low management	.05	.22	17,227	-.072	-.193	-.049	-.119	-.042	-.033			
8. Middle management	.06	.23	17,227	.027	-.240	-.060	-.125	-.044	-.034	-.058		
9. Upper management	.02	.14	17,227	-.004	-.136	-.036	-.074	-.025	-.024	.043	-.035	
10. Tenure	11.68	9.44	17,222	.129	-.008	-.037	-.044	-.034	.013	-.033	.080	.057
11. Age	43.09	10.37	17,032	.131	.005	-.009	-.058	-.008	.024	.043	.057	.059
12. No degree	.29	.45	17,054	.000	.107	.075	-.106	-.049	.043	.009	-.074	-.067
13. AA degree	.11	.30	17,054	-.011	-.039	.037	.051	.000	.010	-.005	-.030	-.039
14. Bachelor's degree	.21	.40	17,054	-.005	-.426	-.028	.319	.172	-.020	.034	.139	.073
15. Graduate degree	.07	.26	17,054	.013	-.263	-.056	.161	.016	-.021	.051	.158	.185
16. Risk Disposition	5.53	2.34	17,255	.104	-.007	-.069	.046	.071	-.015	.045	.104	.068
17. Union	.08	.272	17,104	-.040	.258	-.072	-.146	-.058	-.039	-.045	-.062	-.029
18. Disability	.06	.238	17,049	-.004	.093	.009	-.059	-.019	-.020	-.029	-.021	-.009
19. STSC	.05	.08	17,255	.225	-.319	-.053	.132	.060	-.024	.065	.225	.261
20. LTSC	.50	.92	17,255	.081	-.204	.032	.055	.045	-.033	.089	.081	.176
21. Psychological Ownership	4.11	2.75	17,255	.149	-.204	.013	.040	.061	-.006	.089	.149	.143
22. Job Satisfaction	4.98	1.30	17,255	.054	-.068	.042	-.006	.030	-.016	.019	.054	.052
23. Org. Commitment	.00	2.28	17,255	.097	-.184	.067	.025	.071	.033	.056	.097	.060

*Note.* Numbers 1-23 in the top row correspond to the variables in the respective sections of the table. For all correlations above .013,  $p < .10$ ; for all correlations above .015,  $p < .05$ ; for all correlations above .020,  $p < .01$ ; for all correlations above .025,  $p < .001$ .

a. Companies are coded as 7 to 14

**TABLE 1 Descriptive Statistics and Correlations Continued**

Variables	10	11	12	13	14	15	16	17	18	19	20	21	22
11. Age	.522												
12. No degree	.013	-.010											
13. AA degree	-.007	.006	-.219										
14. Bachelor's degree	-.061	-.056	-.326	-.176									
15. Graduate degree	-.025	.020	-.179	-.097	-.137								
16. Risk Disposition	-.042	-.070	.020	.006	.096	.083							
17. Union	.096	.074	-.008	-.042	-.136	-.075	-.003						
18. Disability	.040	.085	.023	.000	-.068	-.035	-.035	.065					
19. STSC	.158	.127	-.114	-.032	.233	.244	.097	-.165	-.037				
20. LTSC	.274	.165	-.049	.006	.110	.115	.044	-.092	-.009	.226			
21. Psychological Ownership	.075	.117	-.031	-.005	.098	.103	.091	-.163	-.055	.193	.206		
22. Job Satisfaction	.008	.061	-.017	-.017	-.007	.006	-.023	-.047	-.052	.049	.051	.353	
23. Org. Commitment	.062	.121	-.011	-.004	.049	.037	.011	-.134	-.065	.128	.116	.412	.577

**TABLE 2 Regression Results for Psychological Ownership and Job Satisfaction**

Variables	Psychological Ownership		Job Satisfaction					
			Main		Mediation			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	
Company	-.105 ***	-.067 ***	-.052 ***	-.045 ***	-.015 *	-.015 †	-.021 **	
Job A	-.029	-.034	-.097 **	-.103 **	-.086 *	-.087 *	-.091 **	
Job B	.021	.016	.008	.005	.001	.000	-.001	
Job C	.034	.035	-.019	-.022	-.031	-.031	-.034	
Job D	.050 **	.050 **	.020	.019	.003	.002	.001	
Job E	.008	.006	-.030 *	-.032 *	-.032 *	-.033 **	-.034 **	
Low	.077 ***	.075 ***	.002	.001	-.025 †	-.025 †	-.026 †	
Middle	.119 ***	.126 ***	.044 *	.045 **	.001	.001	.000	
Upper	.114 ***	.115 ***	.045 ***	.047 ***	.004	.005	.006	
Tenure	.016 †	-.006	-.037 ***	-.039 ***	-.043 ***	-.043 ***	-.037 ***	
Age	.120 ***	.118 ***	.080 ***	.081 ***	.038 ***	.038 ***	.039 ***	
No degree	.004	.003	-.055 ***	-.055 ***	-.056 ***	-.056 ***	-.056 ***	
AA degree	-.002	-.004	-.056 ***	-.056 ***	-.055 ***	-.055 ***	-.054 ***	
B degree	.006	.006	-.104 ***	-.102 ***	-.106 ***	-.106 ***	-.104 ***	
G degree	.014	.015 †	-.072 ***	-.070 ***	-.077 ***	-.077 ***	-.075 ***	
Risk	.058 ***	.058 ***	-.027 **	-.026 **	-.048 ***	-.048 ***	-.047 ***	
Union	-.130 ***	-.127 ***	-.043 ***	-.043 ***	.004	.004	.002	
Disability	-.040 ***	-.040 ***	-.054 ***	-.054 ***	-.039 ***	-.039 ***	-.039 ***	
Short term SC	.074 ***		.024 **			-.003		
Long term SC		.105 ***		.016 †			-.022 **	
Psychological Ownership					.356 ***	.357 ***	.358 ***	
F	122.1 ***	127.1 ***	26.59 ***	26.38 ***	145.6 ***	138.3 ***	138.7 ***	
(df)	(19)	(19)	(19)	(19)	(19)	(20)	(20)	
R <sup>2</sup>	.121	.125	.029	.029	.141	.141	.141	
Adjusted R <sup>2</sup>	.120	.124	.028	.028	.140	.140	.140	
$\Delta R^2_a$	.004 ***	.008 ***	.0004 **	.0004 †	.112 ***	.000	.00002 **	

Note. a. Increased in  $R^2$  over prior model (control or main effect). †  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Job categories include production (job A), administrative (job B), professions/technicians (job C), sales (job D), customer service (job E). Management level includes low management (low), middle management (middle), upper management (upper). Education is consisted of four categories which are no degree, AA degree, Bachelor's degree (B degree), and Graduate degree (G degree). Risk refers to risk disposition

**TABLE 3 Regression Results for Organizational Commitment**

Variables	Organizational Commitment				
	Main		Mediation		
	Model 8	Model 9	Model 10	Model 11	Model 12
Company	-.070 ***	-.055 ***	-.028 ***	-.030 ***	-.030 ***
Job A	-.234 ***	-.247 ***	-.233 ***	-.223 ***	-.234 ***
Job B	-.020	-.026	-.032 †	-.028	-.032 †
Job C	-.099 **	-.105 ***	-.117 ***	-.111 ***	-.118 ***
Job D	.009	.007	-.012	-.009	-.012
Job E	-.017	-.021	-.023 †	-.020	-.023 †
Low	-.007	-.009	-.038 **	-.036 *	-.038 **
Middle	.019	.022	-.025	-.026 †	-.026 †
Upper	.011	.015	-.029 **	-.032 **	-.028 *
Tenure	-.005	-.009	-.008	-.011	-.007
Age	.130 ***	.131 ***	.086 ***	.085 ***	.087 ***
No degree	-.023 **	-.024 **	-.025 **	-.025 **	-.025 **
AA degree	-.031 ***	-.031 ***	-.030 ***	-.030 ***	-.030 ***
B degree	-.067 ***	-.063 ***	-.066 ***	-.070 ***	-.065 ***
G degree	-.054 ***	-.049 ***	-.055 ***	-.059 ***	-.055 ***
Risk	-.005	-.004	-.026 ***	-.027 ***	-.026 ***
Union	-.100 ***	-.102 ***	-.054 ***	-.052 ***	-.054 ***
Disability	-.056 ***	-.056 ***	-.041 ***	-.041 ***	-.041 ***
Short term SC	.053 ***			.026 **	
Long term SC		.034 ***			-.006
Psychological Ownership			.375 ***	.374 ***	.374 ***
F	77.11 ***	75.83 ***	224.9 ***	214.3 ***	213.7 ***
(df)	(19)	(19)	(19)	(20)	(20)
R <sup>2</sup>	.080	.079	.203	.203	.202
Adjusted R <sup>2</sup>	.079	.078	.202	.202 **	.201
$\Delta R^2_a$	.002 ***	.001 ***	.124 ***	.0004 **	.000

Note. a.Increased in  $R^2$  over prior model (control or main effect)

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Job categories include production (job A), administrative (job B), professions/technicians (job C), sales (job D), customer service (job E). Management level includes low management (low), middle management (middle), upper management (upper). Education is consisted of four categories which are no degree, AA degree, Bachelor's degree (B degree), and Graduate degree (G degree). Risk refers to risk disposition

**TABLE 4 Dominance Analysis of STSC and LTSC**

Variables	Psychological Ownership			Job Satisfaction			Org. Commitment		
	$\rho^2$	Additional contribution		$\rho^2$	Additional contribution		$\rho^2$	Additional contribution	
		STSC	LTSC		STSC	LTSC		STSC	LTSC
		STSC	LTSC		STSC	LTSC		STSC	LTSC
-		.037	.043		.002	.003		.016	.013
STSC	.037	-	.028	.002	-	.002	.016	-	.008
LTSC	.043	.023	-	.003	.001	-	.013	.011	-
Avg.		.030	.035		.0015	.0025		.0135	.0105



**TABLE 5 Hierarchical Regression Results for Multiplicative SC**

	$\beta$	$R^2$	Adjusted $R^2$	$\Delta R^2$	Sig.
Psychological Ownership					
Step 1: LTSC	.099				
STSC	.064	.128	.127		***
Step 2: STSC $\times$ LTSC	-.013	.128	.127	.000	
Job Satisfaction					
Step 1: STSC	.022				
LTSC	.014	.029	.028		***
Step 2: STSC $\times$ LTSC	.017	.029	.028	.000	
Organizational Commitment					
Step 1: STSC	.050				
LTSC	.029	.081	.079		**
Step 2: STSC $\times$ LTSC	-.025	.081	.080	.0003	*

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$