

2006

Gender Differences on Organizational Commitment of U.S. and Japanese Firms in Thailand

Jian Sun

Follow this and additional works at: <https://dsc.duq.edu/etd>

Recommended Citation

Sun, J. (2006). Gender Differences on Organizational Commitment of U.S. and Japanese Firms in Thailand (Master's thesis, Duquesne University). Retrieved from <https://dsc.duq.edu/etd/1252>

This Immediate Access is brought to you for free and open access by Duquesne Scholarship Collection. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Duquesne Scholarship Collection. For more information, please contact phillips@duq.edu.

**Gender Differences on Organizational Commitment of U.S. and Japanese Firms in
Thailand**

A Thesis

Presented to the

McAnulty College and Graduate School of Liberal Arts

Duquesne University

In partial fulfillment of

the requirements for the degree of

Master of Arts

by

Jian Sun

Mar 29, 2006

Abstract:

This study focuses on gender differences on identity commitment and behavioral commitment of ten U.S. and Japanese transplants in Thailand. The study proceeds in two steps. First, the relationship between four categories of independent variables and two dimensions of organizational commitment, gender and other independent variables as well as the firms' home country and other independent variables are measured by bivariate analysis. Second, multivariate analyses are used to measure the general model and separate gender models respectively. The findings suggest that personal relationships with supervisor are the strongest indicator of two dimensions of organizational commitment for both males and females followed by cooperation and job satisfaction. In addition, job-related and structural-related variables are associated with females' identity commitment while work experience variables contribute to males' identity commitment. Males' behavioral commitment is influenced by work experience and personal characteristics variables whereas only work experience variables affect females' behavioral commitment.

Table of Contents	Page Number
I. Introduction	1
II. Literature Review	2
III. Conceptual Framework	8
IV. Methodology	19
V. Research Design and Data	24
VI. Data Analysis	25
A. Descriptive Statistics	25
B. Bivariate Statistics	28
C. Multivariate Statistics	58
VII. Results	81
VIII. Implication and Conclusions	84
A. Table 1	92
B. Table 2	93
C. Table 3	94
D. Table 4	95
E. Table 5	96
Appendix A	97
Appendix B	98
Bibliography	101

I. Introduction

Organizational commitment is a primary focus of human resources management practice, given the premise that a highly committed workforce contributes to a high work performance and can be a significant competitive advantage. In an era of globalization, when developing countries use their comparative advantages to have an export-led industrialization, developed countries began to integrate operation in developing countries as a part of the global supply chain for services and manufacturing. Increasingly globalized operations bring organizations into contact with different cultures and may promote the “best” management practices across national boundaries. The increasing foreign direct investment from industrialized countries like the United States and Japan to developing countries in Asia raises issues of employee-management relations and attitudes in the cross-cultural workplace in industrializing countries.

In some of these workplaces, females represent a significant portion of labor force. The questions of whether there are differences between men and women in their levels of organizational commitment—and, if such differences are present, why—thus emerge as important research issues on organizational commitment in these cross-cultural workplaces. The concern of my study is the role of gender in affecting organizational commitment on U.S. and Japanese firms in Thailand. This study is based on recent research by Usui et al. (2005) on organizational commitment among 959 Thai employees in 10 Japanese and American transplant corporations in the Bangkok area through interview data using the same data set.

II. Literature Review

A. Dimension of Organizational Commitment

Organizational commitment is a key construct for examining the relationship between individuals and organizations. Steers (1977) find that people who are highly committed to their work organizations are willing to devote more effort to the organization, identify more with the values of the employer, and maintain their affiliation with the organization (quoted from Marsden et al. 1993, pp. 368). Committed workers may contribute to economic growth and societal development. Committed employees are assumed to have higher levels of effort and performance and lower rates of turnover and absenteeism. However, Morris et al. (1993) assert that “it is commonly noted that consensus over the definition of commitment does not exist [sic]” (quoted from Nihof et al. 1998, pp. 243).

The multidimensional nature of organizational commitment is apparent although past research has often not clearly defined and conceptualized organizational commitment. Okabe (2002, pp. 3) finds that there are two distinct approaches to defining commitment: exchange and psychological approaches. The exchange approach has evolved from Becker’s side-bet theory (1960), which suggests that one accumulates side-bets or investments (such as corporate pension plans, length of employment and organization specific skills) over time in the organization. The more one accumulates side-bets the more one has to lose by leaving the organization and, hence, the greater the commitment to the organization. In contrast, the psychological approach is represented by Mowday, Porter, and Steers (1974). Their three dimensional definition of organizational commitment is widely used: first, a strong belief in and acceptance of the

organization's goals and values; secondly, a willingness to exert considerable effort on behalf of the organization; and third, a strong desire to maintain membership in the organization (Mowday et al. 1982, pp. 27).

Later constructs validating work on commitment by Meyer and Allen (1991) has delineated three specific facets: "affective" as an emotional attachment to the organization, such that employees continue employment because they want to, "continuance" as employee motivation to remain with an organization because they feel that they need to, and "normative" as a sense of moral obligation in which workers remain employed because they feel they ought to (quoted from Casper et al. 2002, pp.100). According to this definition, employees can show continuance commitment to an organization for some reasons they need to do so, for example, a woman may be committed to remaining with her organization because she uses on-site child care, and removing her child would be disruptive. Moreover, they point out that the other research suggests that continuance commitment may be comprised of two dimensions other than commitment to the organizational value and goals: commitment based on a lack of employment alternatives and commitment based on high sacrifice entailed in leaving (Casper et al. 2002, pp.100). Later research finds that continuing to work in the organization did not represent the internalization of the organization's goals, or strong feelings of loyalty (Usui et al. 2005, pp. 2).

A review of the literature by Okabe (2002, pp. 3) finds two distinct constructs of organizational commitment. First, identification, affective or attitudinal commitment, as commitment to the goals and values of the organization. Second, attachment, calculative, behavioral or continuance commitment, as a strong desire to maintain membership in the

organization. Each dimension of organizational commitment has been differently termed by some authors and the same term may be given to different dimension so that make the definition itself ambiguous. Nevertheless, it is common in all these definitions that commitment is not only an attitude, but also a behavior (Nijhof et al. 1998, pp. 243). I will follow Usui et al.'s 2005 study to define two dimensions of organizational commitment as my dependent variables: identity commitment, a strong belief in and acceptance of the organization's goals and values; and behavioral commitment, a willingness to exert extra effort in order for the organization to succeed.

B. Gender Difference on Organizational Commitment

Introducing different variables and samples into the studies, previous bivariate research shows inconsistent result in gender difference of organizational commitment. Marsden et al. (1993, pp. 373-374) point out that prior research reveals inconsistent conclusions on the relationship between gender and different measures of organizational commitment. Women are found to display higher levels of commitment than men. For example, Grusky's 1996 study of managers in a large public utility, Hrebiniak and Alutto's 1972 study on teachers and nurses, Angle and Petty's 1981 study on bus drivers. Or there is no significant relationship between gender and organizational commitment. Such as Aryee and Heng's 1990 study of shopfloor workers in a Singapore manufacturing company, Chelte and Tausky 's 1986 study on three occupational groups in a university, Gaertner and Hollen's 1989 study on employees in one plant of a Fortune 100 firm. Marsden et al. (1993, pp. 374) point out that samples of several organizations,

like Mottaz's 1998 study of six moderate-size organizations, can not find gender differences on organizational commitment.

Later research begins to examine the interaction between gender and other variables by multivariate analysis. When using 1991 GSS of recent studies, Marsden et al. (1993, pp. 376) find that men display a small but significant higher organizational commitment than employed women. Similarly, Dodd-McCue and Wright (1996, pp. 1065), after examining the attitudinal commitment of a group of accounting professionals, find that men report significantly higher ratings for both organizational commitment and job satisfaction. Women are less committed to their organizations than men. After examining affective commitment of senior level positions in the Dutch division of a large, multinational, oil-producing company, Velde (2003, pp. 3) finds no gender differences on organizational commitment when controlling for age. Rosin and Koabik (1995, pp. 8) have a similar result after studying a sample of employees holding MBA degrees and working in a variety of industries: when controlling for age and experience there are no sex differences in work commitment. Snape and Chan's (2000, pp. 452) findings are that employee commitment is associated with older workers and females after examining the pattern and antecedents of employee commitment to the company and union in a public utility of Hong Kong. Eaton (2003, pp. 149) examines seven biopharmaceutical firms in one state; she also confirms her hypothesis that for workers with similar jobs, affective commitment will not vary by sex. In these analyses, age and job type are found to have interaction with gender in affecting organizational commitment.

Lincoln and Kalleberg's conclusions changed over time. In their 1990 study, they (Lincoln and Kalleberg 1990, pp. 154) find women have fewer employment alternatives

available and overcome more barriers to get where they are, thus they are more likely to be committed to their organizations when they examine the work organization and work attitudes in the United States and Japan. However, in their 1996 study of 41 manufacturing plants in Japan and 45 in the United States, they predict that heavily female plants will exhibit less commitment in both countries, and that this association will be stronger in Japan because of greater gender discrimination in wages, promotions, and other job rewards. They conclude that females in Japanese firms represent higher quit rates than females in American firms due to marriage and childbearing (Lincoln and Kalleberg 1996, pp. 55).

C. Other Variables Relevant to Gender that Affect Organizational Commitment

According to literature, some other variables may affect organizational commitment and have interactions with gender. For example, *Work-family conflict* is a key variable appearing frequently in literature about human resources practices. Batt and Valcour's (2003, pp. 212) study on seven large employers in upstate New York demonstrates that *work-family policies* have significant relationships with employee's turnover intentions. Marsden et al. (1993, pp. 382-383) find by 1991 GSS study that *marital status* appears to have effect on organizational commitment: being married appears to raise commitment among men, but not among women. And the *presence of younger children* in the household has a more negative coefficient among men than among women. In 1996, Lincoln and Kalleber find that the *proportion married* proves a powerful determinant of commitment, driving identification and attachment up and quit

rates down in both Japan and U.S. In addition, *unpaid personal leave, sick leave to care for ill children*, are used as items of formal work-family policies by Eaton (2003, pp. 154) to conclude their positive relationship with organizational commitment and perceived productivity. Fuegen et al. (2004, pp. 737) investigate the influence of gender and *parental status* on job-related competence of a job applicant. One hundred and ninety six undergraduates at two universities evaluate a job applicant. The applicant is either male or female and is either single or married with two children. They find that according to respondents' evaluation of job-related competence, parental status interacts with gender, and fathers are held to more lenient standards than mothers and childless men.

It is suggested by Snape and Chan (2000, pp. 450) that *promotional opportunities* significantly contribute to company commitment. *Plant size and unionization* are two other important variables to demonstrate welfare corporatism theory¹ in Lincoln and Kalleberg's 1996 work. They (Lincoln and Kalleberg 1996, pp. 51) conclude that plant size is related negatively to quits and positively to identification and attachment, but the significance varies with the model. Union membership raises identification in Japan but lowers it in the U.S.. Okabe's work (2002, pp. 11) suggests that factors related to the employment system such as importance of pay and *job security* had a powerful impact on the development of both the continuance and affective commitment of Japanese and British managers. *The rules and regulations* applied to the job and job flexibility help to clearly define the job role, harmonize role conflict, and delineate employee's obligations in an impersonal and legitimate fashion (Lincoln and Kalleberg 1985, pp. 740).

¹ Corporatist is used to characterize an emergent set of structures and programs for organizing the workplace which control the labor process not through coercive or utilitarian inducements, but through normative, associative, and symbolic ones (Lincoln and Kalleberg 1985, pp. 740).

Unfortunately, these gender-relevant variables are not available in our data set but with available data I can examine whether there are relationships between gender and two dimensions of organizational commitment, and if relationships do exist, what are the differences on the contributions of two dimensions of organizational commitment between males and females.

III. Conceptual Framework

This study follows Usui et al.'s division of organizational commitment into two dimensions: identification commitment, a strong belief in and acceptance of the organization's goals and values; and behavioral commitment, a willingness to exert extra effort in order for the organization to succeed (Usui et al. 2005, pp. 2). Mowday et al. (1982, pp. 27) suggest four categories of variables affecting commitment: personal characteristics, job or role-related characteristics, structural characteristics and work experiences. Different categories are used in other studies based on this model. For example, Hijhof et al. (1998, pp. 243) use the categories of personal characteristics, job characteristics and organizational characteristics in exploring employee commitment in changing organizations. Snape and Chan (2000, pp. 452) find that 60% of the variance of company commitment is influenced by a range of personal, job work experience, and industrial relations variables when examining union commitment in the Hong Kong context. This study will follow four categories suggested by Mowday et al. and used by Usui et al. (2005, pp. 6) to measure the major influences on the formation of organizational commitment: job or role-related characteristics, structural characteristics of the organization, work experiences and personal characteristics. These four categories'

concept definitions and related variables and their hypothesized relationship with organizational commitment are discussed below.

Job-Related Variables

Job-related or role-related variables relate to employee roles and job characteristics. According to Hijiho et al. (1998, pp. 244), many studies have concluded that job characteristics are the most important predictors of commitment. According to Mowday et al. (1982, pp. 31) there appear to be at least three related aspects of work roles that have the potential to influence commitment: job scope or challenge, role conflict, and role ambiguity (Mowday et al. 1982, pp. 31). In my study, these variables include job variety, availability of resources to accomplish the job, and job flexibility.

Occupations characterized by skill, *variety* and control tend to become objects of loyalty and commitment (Lincoln and Kalleberg 1985, pp. 748). Job variety refers to variety in tasks and the use of a wide range of skills and knowledge (Nijhof 1998, pp. 245). Accordingly to Mowday, it is believe that increased job scope increases the challenge employees experience and thereby increases commitment (Mowday et al. 1982, pp. 31). Lincoln and Kalleberg (1985, pp. 749) find that job complexity contributes to organizational commitment with data from a survey of over 8,000 employees in nearly 100 manufacturing plants in Japan and the United States. Their results suggest that the effects of job complexity (measured by job variety and four other items) on organizational commitment are significantly larger in the U.S. while Japanese report less variety and freedom in their jobs (Lincoln and Kalleberg 1985, pp. 749).

The *availability of resources* helps the employee meet job challenges. Information sharing is thought to produce a sense of belonging (Okabe 2002, pp. 6). The prior Thai data study on which I am basing my findings indicates that increasing job challenge and the rules, regulations, and resources needed to meet that challenge are thought to elicit an increased commitment from employees, but can not find any relationship (Usui et al. 2005, pp. 7).

Job flexibility includes much more than work starting and quitting times, it also may mean taking days off in return for working at nonstandard times or being able to work part time temporarily at certain points in life (Eaton 2003, pp. 147). The literature indicates that creation of job flexibility will maximize commitment and thus minimize absenteeism and turnover (Johns 2005, pp. 44). Eaton (2003, pp. 149) confirms the following hypotheses, that flexibility policies will be associated positively with affective organizational commitment; and that the organization's formal or informal policies (or practice) supporting employee's flexibility to manage work and family responsibilities will be positively related to employee's organizational commitment and perceived productivity. Lincoln and McBridge (1987, pp. 303) cite Hatvany and Pucik's results that job rotation and flexible labor assignments are a characteristic feature of the Japanese workplace and an important mechanism in reducing the strains and costs imposed by the permanent employment system. Other research concludes that access to flexible scheduling is predictive of lowered turnover intentions (Batt and P. Valcour 2003, pp. 211).

Structural Characteristic Variables

These variables have dealt with the influence of organizational structure on commitment. Accordingly to Mowday et al. (1982, pp. 33), prior study demonstrates that employees experiencing greater decentralization, greater dependence on the work of others, and greater formality of written rules and procedures felt more committed to the organization than employees experiencing these factors to a lesser extent. In addition, Hihonf et al. (1998, pp. 244) point out that the style of leadership is an important characteristic. And Mowday et al. (1982, pp. 33) suggest that different occupational groupings may represent variance on commitment.

According to Lincoln and Kalleberg (1996, pp. 44), *formal rules and procedures* are characteristics of Japanese welfare corporatist form. Lincoln and McBride (1987, pp. 302) also find literature to indicate that Japanese companies proved more formalized and this contributes to higher worker commitment. While pointing out that high formalization has been attributed to Japanese firms by several scholars, Lincoln and Kalleberg (1985, pp. 755) expect that formalization provides a constitutional framework of rights and obligations. However, their results indicate that there is a significant negative effect of formalization on commitment in the U.S, whereas in the Japanese sample, the formalization effect is positive but only on satisfaction and not on commitment. This is consistent with their 1996 work. They find very little evidence for the welfare corporatist proposition that formalization increases commitment (Lincoln and Kalleberg 1996, pp. 56). Only the negative (but not significant) effect on quit rates in the Japanese sample tends to support that view. The U.S. results are strongly supportive of the opposing claim that formal rules alienate workers: identification and attachment go down with formalization and quits go up.

However, formal rules and procedures safeguard employee rights while delineating obligations in an impersonal and legitimate fashion (Lincoln and Kalleberg 1985, pp.741). Lincoln and Kalleberg (1985, pp. 757) conclude that instead of standard operation procedures, unit/small-batch production is associated with lowered commitment to the organization in both Japanese and American firms.

Decision Making Participation restores to the worker a sense of control over the production process and of partnership in the running of the firm (Lincoln and Kalleberg 1985, pp. 740). According to Mowday et al. (1982, pp. 33) decentralization and participation in decision making are the most important organizational characteristics that influence commitment.

Autonomy in decision making should translate into greater employee ability to control decisions (Batt and Valcour 2003, pp. 196). It reflects the extent that employees can work independently (Marsden et al. 1993, pp. 385) and the possibility of making independent decisions on how to do the task (Nijhof 1998, pp. 245). It is thought to be one of the most powerful indicators of organizational commitment among U.S. workers (Lincoln and Kalleberg 1990, pp. 92). Literature indicates that autonomy is one of the major features that have net effects on organizational commitment (Marsden et al. 1993, pp. 381). Eaton (2003, pp. 48) supports the hypothesis that control or autonomy over time, pace, and spatial aspects of work itself is associated with positive organizational outcomes. However, Batt and Valcour (2003, pp. 212) take a sample of seven large employers in upstate New York to analyze three types of human resources practices (work-family policies, human resources incentives and the design of work) and three outcomes (work-family conflict, employee's control over managing work and family

demands, and employee's turnover intentions). They find that none of the work-design variables including autonomy is significantly associated with turnover intentions.

Cooperation is the ability to collaborate or coordinate work with other colleagues thus stressing harmonious relationships in the workplace. Lincoln and Kalleberg (1985, pp. 739) also highlight group decision-making and teamwork as one of the features of corporatist organization, which represents an evolutionary advance over the market individualism. Working in teams rather than as individuals goes together with higher scores on commitment (Nijhof 1998, pp. 246). Lincoln and McBride (1987, pp. 304) also suggest that there is abundant evidence of organization commitment among the Japanese such as developing strong bonds with coworkers.

Job Hierarchical position is an indicator of a respondent's structural position in a network of supervisory relations (Marsden et al. 1993, pp. 385). The literature has inconsistent findings. Accordingly to Lincoln and Kalleberg (1985, pp. 750), it is a near-universal finding that position in the organizational authority/status hierarchy should produce attitudes favorable to the firm. Meanwhile they also find that there is less inequality in the distribution of inducements over ranks in Japanese sample than in the U.S. sample, but there is greater disparities in the work attitudes of U.S. managers, supervisors, and workers than is apparent in the Japanese sample (Lincoln and Kalleberg 1985, pp. 750). However, by studying four organizations, Mowday et al. find (1982, pp. 33-34) that although different organizations manifest different overall levels of employee commitment, this commitment is equally strong up and down the organizational hierarchy. Top executives as a group are not more committed than service workers or blue-collar workers.

Work Experience Variables

This category represents those work experiences that occur during an employee's tenure with the organization. Work experiences are viewed as a major socializing force and as such represent an important influence on the extent to which psychological attachments are formed with the organization (Mowday et al. 1982, pp. 34). According to Mowday et al., work experience variables includes organizational dependability (the extent to which employees felt the organization could be counted upon to look after employee interests), personal importance to the organization, expectations were met in the work place, positive attitudes toward the organization, perceived pay equity, group norms regarding hard work, leadership style and employees' social involvement (Mowday et al. 1982: 34-35). Work experience variables include earnings and benefits, working hours, job satisfaction, relations between management and workers, Contacts with other workers and friendship ties.

In addition to the design of jobs and work settings, organizational commitment may be affected by individual differences in rewards received from work. High *earnings and fringe benefits* indicate that an employer places high value on an employee, and may be reciprocated by higher commitment levels. Earnings register small positive increments in the commitment of Japanese and Americans alike (Lincoln and Kalleberg 1985, pp. 748). Johns (2005, pp. 21-30, 33-38) also reports that earnings are positively related to three dimensions of organizational commitment: affective, effort and continuance commitment in his bivariate correlation, whereas in his multivariate analysis, earnings are not found to be related any one of these three dimensions of organizational commitment.

Nijhof et al. (1998, pp. 246) suggest that no meaningful correlation exists between the salary and commitment. Other findings are more country specific. Lincoln and Kalleberg (1996, pp. 54) in their 1996 comparative analysis, using early 1980s data, report that pay is a stronger motivator of identification commitment in U.S. than in Japan. Lincoln and McBride (1987, pp. 293) summarized Lincoln and Kalleberg's 1985 finding that age, seniority, and marital status had a far greater influence on earnings in a Japanese sample, whereas job attributes and managerial rank play the larger role in determining pay in a comparable American sample.

Heavy use of welfare benefits is central to accounts of high commitment in Japanese companies and corporatist organizations (Lincoln and Kalleberg 1985, pp. 756). Another study indicates that nonmerit reward criteria is one of the major features that have net effects on organizational commitment (Marsden et al. 1993, pp. 381). However, Batt and Valcour (2003, pp. 213) conclude that salary and job security tend to decrease turnover intentions, whereas the presence of career-development benefits is associated with an increased probability of turnover.

Those supplying more *labor hours*, in turn, tend to be somewhat more committed to their employers. There is little literature on the effects of working hours on commitment. Becker's side-bet thesis (1960) used by Johns (2005, pp. 26) concluded that individuals find themselves invested in an organization and increase their effort to maintain their position. This conclusion coincides with Johns' result that individuals justify working longer hours by developing attitudinal commitments to the organization. However, in his multivariate analysis, working hours have no relationship with any of three dimension of organizational commitment (Johns 2005, pp. 33-38).

Job satisfaction is thought to be highly related to organizational commitment. Johns' thesis (2005, pp. 40) proves that job satisfaction is significant for all three measures of commitment for both bivariate correlations and regression analyses. Job satisfaction is a positive predictor of company commitment (Snape and Chan 2000, pp. 452). A consistent finding is that Japanese employees report lower job satisfaction than Americans when exploring the determinants of high commitment in Japanese firms (Lincoln and Kalleberg 1985, pp. 738). It is also suggested that low satisfaction may be coupled with high commitment in Japanese firms (Lincoln and McBride 1987, pp. 304).

The industrial relations climate is concerned with the extent to which *relations between management and workers* are seen as being trusting and *cooperative* and as involving respect and recognition of mutual interest. A harmonious industrial relations climate is a common predictor of company and union commitment (Snape and Chan 2000, pp. 450-456). The idea is that the closer and more integrated the workers are with managers, the lower the conflict, and the higher the cooperation and trust, which in turn positively affect employee commitment to the organization (Usui et al. 2005, pp. 9). Lincoln and McBride (1987, pp. 298) argue that the social relations between superiors and subordinates in Japanese firms emphasize status difference, and high degree of institutionalization in a set of standard ranks. However, many observers affirm that Japanese firms make a point of eliminating the symbolic trappings of status (e.g. no wage/salary distinction, uniforms at all levels, shared parking lots and dining halls, etc) (Lincon and Kalleberg 1985, pp. 750). *Contacts* with other workers and *friendship* ties are an incentive to come to work and keep the job. The welfare corporatist firm develops informal ties and internalizes them within its program of commitment maximization

(Lincoln and Kalleberg 1996, pp. 44). The idea is that the greater the social interaction, contacts, or friendships of the employee, the more social ties the employee develops in the organization and the more the individual becomes attached to the employer (Usui et al. 2005, pp. 9).

Lincoln and Kalleberg (1985, pp.748) use the number of close friends as one of the items to measure the intrinsic incentives. They find that this measure is positively linked to commitment. They confirm Cole and Rohlen's finding that friendship bonds are the only inducement to be higher in the Japanese plants (Lincoln and Kalleberg 1985, pp. 749). However, in their 1996's research, Lincoln and Kalleberg (1996, pp. 56) conclude that in America, friendship ties reduce identification but they also lower quits. They do not affect attachment. In Japan, friendships reduce both identification and attachment. There may be other factors affecting the relationship between number of friends and employee's behavioral commitment.

Personal Characteristics

Personal characteristics studied have included age, tenure, educational level, gender, race, and various personality factors (Mowday et al. 1982, pp. 30).

Previous bivariate analysis shows inconsistent results about gender difference on organizational commitment. Women displayed a higher level of commitment or there is no significant relationship between gender and organizational commitment (Marsden et al. 1993, pp. 374). Men reported significantly higher ratings for both organizational involvement and job satisfaction. Women have less attitudinal commitment than men

(Dodd-McCue and Wright 1996, pp. 1065). Later research using multivariate analysis find age and job type interact with gender in affecting organizational commitment.

Mowday (1982, pp. 30) points out that prior research has found that commitment is positively related to both age and tenure. As regarding to *age*, the results tend to be consistent. For example, Snape and Chan (2000, pp. 452) find that employee's organizational commitment is associated with older workers and females after examining the pattern and antecedents of employees commitment to company and union in a public utility of Hong Kong. Dodd-McCue and Wright (1996, pp. 1081) study attitudinal commitment of a group of accounting professionals to determine its origins and whether it differs for men and women. They also find that age and importance of career were positively linked with women's organizational involvement but not men's.

Tenure is the number of years spent working in the present profession. However, the literature itself has inconsistent findings about tenure. According to Mowday (1982, pp. 30), some studies find that as age or tenure in the organization increases, the individual's opportunities for alternative employment become more limited. This decrease in an individual's choices may increase the perceived attractiveness of the present employer, thereby leading to increased psychological attachment. Lincoln and Kalleberg point out that tenure increases identification (not attachment) in Japanese firms and U.S. firms and reduces quits (Lincoln and Kalleberg 1996, pp. 54). Other studies could not find a positive relationship or even negative relationship between tenure and commitment. Comparing over 8,000 employees in nearly 100 plants in Japan and the United States, Lincoln and Kelleberg (1985, pp. 750) find that there is little evidence that tenure engenders either satisfaction or commitment. Dodd-McCue, and Wright maintain

(1996, pp. 1081) that length of tenure with the organization and the extrinsic reasons associated with taking the current job presented a negative influence on attitudinal commitment. Snape and Chan (2000, pp. 454) also find that persons with longer tenure tend to be less committed to the company. Velde (2003, pp. 6-7) concludes that professional tenure has a significantly stronger negative influence on affective commitment among women than among men.

In general, *education* has been found to be inversely related to commitment. Lincoln and Kallberg (1985, pp. 749) report that education has negative effects on satisfaction and commitment. They note that highly educated workers have higher expectations that the organization is unable to meet, thus negatively affecting organizational commitment (Lincoln and Kalleberg 1990, pp. 156). Moreover, more educated individuals may also be more committed to a profession or trade. Hence, it would become more difficult for the organization to compete successfully for the psychological involvement of such members (Mowday 1982, pp. 31).

IV. Methodology

A. The Dependent Variables

My dependent variables in this study will be two dimensions of organizational commitment: identity commitment and behavioral commitment. Identity commitment is defined as a strong belief in and acceptance of the organization's goals and values; and behavioral commitment is defined as a willingness to exert extra effort in order for the organization to succeed.

Identity commitment index (IdC) is based on two items. The first is based on the question that “I feel pride in the company” (scored 1-5, from strongly disagree to strongly agree). The second item is based on the question that “mine and the company’s values are similar” (scored 1-5, from strongly disagree to strongly agree). The combined index provided for a range of scale from 2 through 10. The two items have an alpha statistic of .46. Behavioral commitment (BeC) is a single item measure based on the question that “I am willing to work harder for the company to succeed” (scored 1-5, from strongly disagree to strongly agree).

B. The Independent Variables

The independent variables will be categorized into four groups drawn from Mowday et al. (1982, pp. 30-35). They are job-related variables, structural-related variables, work experience and personal characteristics. Job-related variables relate to employee roles and job characteristics. They include job variety, availability of resources, and job flexibility. Job variety index (VARIETYINDEX) is based on three question items. Respondents are asked how well the following statements describe their organization: “something new and different every day”, “most jobs have something different every day” and “no two days are the same on the job”. All three of these items are reverse coded as 1-5, from very poorly to very well. The three question items have an alpha statistic of .647. The available resources index (AVAILRESINDEX) is based on two question items. Respondents are required to give their opinion on “have problems getting needed information”, and “have problems finding needed resources”. The response format is 1-5, from strongly agree to strongly disagree. The two question items have an

alpha statistic of .634. Job flexibility index (JOBFLEXINDEX) is based on three question items. Respondents are asked how well the following statements describe their organization: “the employees are constantly being checked upon for rules violations” “employees are expected to follow orders without questioning them” and “people are to be treated within the rules, no matter how serious a problem they have”. These items are scored 1-5, from very well to very poorly. The three items have an alpha statistic of .393.

Structural characteristic variables represent the influence of organizational structure on commitment. They include employee’s perceptions of rules and regulations of the company, reliance on standard operation procedures, formalization, decision making participation, autonomy, cooperation, and job hierarchical position. Employee’s perception of the rules and regulations of the company (RulesNec) is a single item that asks respondent’s attitude on “rules and regulations are absolutely necessary”. The item is reverse coded as 1-5, from strongly disagree to strongly agree. Reliance on standard operating procedures (SOPINDEX) is based on two question items. Respondents are asked how well the following statements describe their organization: “standard operation procedures to be followed in all situations” and “must follow strict procedures at all times”. Both of these items are reverse coded as 1-5, from very poorly to very well. The two items have an alpha statistic of .550. Formalization (comsop3) is a single item that asks respondents how well the statement “the organization has a manual of rules and regulations to be followed” describes their organization. The item is reverse coded as 1-5, from very poorly to very well. Decision making participation index (PARTIINDEX) is based on four question items. Respondents are asked how well the following four statements describe their organization. “Have to check with the boss before I do

anything”, “decision has to have boss approval”, “even small matters referred to higher ups” and “only executives can decide how job is done”. These items are scored 1-5, from very well to very poorly. These four items have an alpha statistic of .643. Autonomy index (AUTONINDEX) is based on three question items. Respondents are asked how well the following three statements describe their organization. “Employee is often left to their own judgment as to how to handle most problems”, “most of us are encouraged to use our own judgment on handling everyday situations”, and “people here make their own rules on the job”. All these three items are reverse coded as 1-5, from very poorly to very well. These three items have an alpha statistic of .489. Cooperation index (COOPINDEX) is based on two question items. Respondents are asked their opinion on statement of “my coworkers assistance is indispensable in my doing a good job”, and “I must work closely with others to do the job well”. Both these items are reverse coded as 1-5, from very poorly to very well. These two question items have an alpha statistic of .405. Job hierarchical position (boss) is a dummy variable where 1=managers and supervisors, 0 =clerks, secretaries, office staff, customer service, and assembly line positions.

Work experience variables represent those work experiences that occur during an employee’s tenure with the organization. Work experiences are viewed as a major socializing force and as such represent an important influence on the extent to which psychological attachments are formed with the organization (Mowday et al. 1982, pp. 34). They include comparative pay, benefits, and working hours with workers have the same job in the company, job satisfaction, management aloofness, number of contacts with people, and friends in the organization. Comparative Pay (comprpay) is a single item.

Respondents are asked “how would you rate your pay compared to others in similar jobs?” These items are scored 1-3, from less to higher. Comparative Benefits (comprben) is a single item. Respondents are asked “how would you rate your benefits compared to others in similar jobs?” These items are scored 1-3, from less to higher. Comparative working hours (comprhrs) is a single item. Respondents are asked “compared to other workers in Thailand, how do you feel your average hours worked each week?” These items are scored 1-3, from less to higher. Satisfaction index (SATIINDEX) is based on five question items. Respondents are asked how satisfied they are with superiors, fellow workers, tasks, organization, and individual’s job. All these items are reverse coded as 1-5, from very dissatisfied to very satisfied. These five items have an alpha statistic of .682. Management aloofness (commngstick) is a single item. Respondents are asked how well the statement of “management sticks to themselves” describes their organization. The item is reverse coded as 1-5, from very poorly to very well. The variable measuring personal relationships with supervisor is a single item. Respondents are asked their opinion on the statement of “my supervisor is someone I confide in about my personal life”. The item is reverse coded as 1-5, from strongly disagree to strongly agree. Number of contacts index (CONTACTINDEX) is based on six question items. Respondents are asked how many of their informal or personal contacts are with fellow employees (Japanese, Thai other groups, superiors, employees on same level and subordinates). All the items are reverse coded as 1-4, from none to many. These six question items have an alpha statistic of .765. Number of friends (friends) is a single item. Respondents are asked “among your personal friends, how many work in this organization?” This item is coded as 1-5, from none to almost all.

Personal characteristic variables include employee's sex, age, tenure, and years of education. Sex is recoded into a dummy variable, where males=0, females=1. Age is respondent's age in years. Tenure is respondent's number years with this company. Education is respondent's years of formal education completed.

Two other extra independent variables: country and company are introduced into the study, in order to examine the difference in organizational commitment between two countries' firms. Country is recoded into a dummy variable, where U.S.=0, Japan=1. There is a significant amount literature on organizational commitment on industry, but no studies on electronic companies have been done. Due to the current boom of electronic companies in developing countries, I want to examine if employees' organizational commitment is the same for electronic companies and other companies. So company (companye) is introduced as an extra dummy variable in my study, where electronic company=1, other company=0.

V. Research Design and Data

My study is based on the recent research conducted by Usui, Colignon, Kerbo, Slagter (2005) on organizational commitment among 959 Thai employees in 10 Japanese and American transplant corporations in the Bangkok area.

They obtained lists of corporations published by the Japanese Chamber of Commerce (1994) and American Chamber of Commerce (1995). These researchers selected American and Japanese corporations based on having a significant number of Thai employees and being in the Bangkok area. The sample was randomly selected within these guidelines with letters of introduction sent from California (where one of the

researchers was located) to 100 Japanese corporations and 25 American corporations. They obtained detailed questionnaire data from 959 Thai employees in six Japanese and four large American transplants in the Bangkok area in 1995 and 1996. There were a total of 549 valid questionnaires from employees of Japanese companies and 410 questionnaires from U.S. transplant corporations. The questions on their questionnaires were taken primarily from Lincoln's (1990, 1996) research on Japanese transplants in the United States and consisted of 10 pages of items ranging from personal data to employee perceptions of workplace organization, job satisfaction, and standard measures of organizational commitment. For more detailed description of the sampling procedures and questionnaires, see Usui, Colignon, Kerbo and Slagter (2005).

VI. Data Analysis

A. Descriptive Statistics

In Table 1 we see descriptive statistics for dependent and independent variables. At the top of the table are statistics for the two dimensions of organizational commitment. Identity commitment is based on 959 valid cases with a minimum of 2 and a maximum of 10. The mean for identity commitment is 6.8582 with a standard deviation of 1.55374. Behavior commitment is based on 959 valid cases with a minimum of 1 and a maximum of 5. The mean for behavior commitment is 3.9541 with a standard deviation of .87531.

Next we see statistics for independent variables. First, let us see job-related variables. Job variety index (VARIETYINDEX) is based on 946 valid cases with a minimum of 3 and maximum of 15. The mean for this index is 6.8784 with a standard deviation of 2.90721. Available resources index (AVAILRESINDEX) is based on 931

valid cases with a minimum of 2 and maximum of 10. The mean for this index is 6.1751 with a standard deviation of 1.82293. Job flexibility index (JOBFLEXINDEX) is based on 928 valid cases with a minimum of 3 and maximum of 15. The mean for this index is 9.3524 with a standard deviation of 2.63856.

Then follow structural characteristic variables. Employee's perception towards rules and regulations of the company (RulesNec, measured by degree of rules necessity they believe) is based on 923 valid cases with a minimum of 1 and maximum of 5. The mean is 3.9393 with a standard deviation of .93068. Standard operating procedures index (SOPINDEX) is based on 943 valid cases with a minimum of 2 and maximum of 10. The mean for this index is 6.2322 with a standard deviation of 2.14697. Organization's formalization (comsop3) is based on 942 valid cases with a minimum of 1 and maximum of 5. The mean is 3.7325 with a standard deviation of 1.25605. Decision making participation index (PARTINDEX) is based on 941 valid cases with a minimum of 4 and maximum of 20. The mean for this index is 12.7651 with a standard deviation of 3.68394. Autonomy index (AUTONINDEX) is based on 912 valid cases with a minimum of 3 and maximum of 15. The mean for this index is 8.1996 with a standard deviation of 2.77983. Cooperation index (COOPINDEX) is based on 920 valid cases with a minimum of 3 and maximum of 10. The mean for this index is 7.9109 with a standard deviation of 1.49380. Job hierarchical position (boss) is a dummy variable which is based on 913 valid cases and is recoded as managers and supervisors=1, all others = 0. The mean is .3012 with a standard deviation of .45903.

Then let us see work experience variables. Comparative Pay (comprpay) is based on 912 valid cases with a minimum of 1 and maximum of 3. The mean is 1.69 with a

standard deviation of .654. Comparative Benefits (comprben) is based on 907 valid cases with a minimum of 1 and maximum of 3. The mean is 1.79 with a standard deviation of .693. Comparative working Hours (comprhrs) is based on 913 valid cases with a minimum of 1 and maximum of 3. The mean is 2.2 with a standard deviation of .530. Satisfaction index (SATINDEX) is based on 887 valid cases with a minimum of 5 and maximum of 25. The mean for this index is 19.8546 with a standard deviation of 2.86771. Management aloofness (commngstick) is based on 946 valid cases with a minimum of 1 and maximum of 5. The mean is 3.71649 with a standard deviation of 1.38406. Employee's personal relationships with supervisors (measured by how they confident in supervisor about their personal life) is based on 929 valid cases with a minimum of 1 and maximum of 5. The mean is 2.3208 with a standard deviation of 1.12496. Number of contacts index (CONTACTINDEX) is based on 956 valid cases with a minimum of 12 and maximum of 30. The mean for this index is 22.6318 with a standard deviation of 3.30514. Number of friends in the organization (friends) is based on 930 valid cases with a minimum of 1 and maximum of 5. The mean is 2.59 with a standard deviation of 1.105.

Finally, we see personal characteristics. Sex (sex1) is a dummy variable which is based on 944 valid cases and is recoded as female=1, male = 0. The mean is .5244 with a standard deviation of .49967. Age is based on 921 valid cases and with a minimum of 16 and maximum of 57. The mean is 28.53 with a standard deviation of 6.603. Tenure (yearscom) is based on 922 valid cases and with a minimum of .08 (1 month) and maximum of 35. The mean is 5.0042 with a standard deviation of 5.22563. Years of education (yearsed) is based on 923 valid cases and with a minimum of 0 and maximum of 28. The mean is 13.67 with a standard deviation of 3.162.

In addition, these firms home country (country) is a dummy variable which is based on 959 valid cases and is recoded as Japan=1, U.S=0. The mean is .5725 with a standard deviation of .49498. Company (companye) is a dummy variable which is based on 907 valid cases and is recoded as electronic company =1, other company=0. The mean is .2282 with a standard deviation of .41992.

B. Bivariate Analysis

Bivariate analysis is the examination of the relationship between two variables. Two variables are linearly related if observations characterized by these two variables cluster around a straight line on a scatterplot. Pearson's correlation coefficient reflects the degree of linear relationship between two variables. It ranges in the value from -1 to 1. If all of the observations fall exactly on a line with a positive slope, the correlation coefficient has a value of +1. If all of the observations fall exactly on a line with negative slope, the correlation coefficient is -1. A Pearson correlation coefficient of 0 indicates no linear relationship between the variables. The absolute value of the Pearson correlation coefficient tells you how closely the observations cluster around a straight line. Both large positive values (near +1) and large negative values (near -1) indicate a strong linear relationship between the two variables—the observations are close to line (Norusis 2004, pp. 446). The results of bivariate correlational analysis of twenty four independent and two dependent variables are shown in Table 2.

a. Job-related variables with organizational commitment.

The null hypothesis is that there is no relationship between job variety (VARIETYINDEX) and employee's identity commitment. The appropriate technique is

Pearson correlation. The correlation is .153 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between job variety and employee's identity commitment, because probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between job variety and employee's identity commitment.

The null hypothesis is that there is no relationship between job variety (as defined by varietyindex) and employee's behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .012 with a 2-tail probability of .723. We can not reject the null hypothesis that there is no relationship between job variety and employee's behavioral commitment, because probability of .723 is more than the .05 convention for statistical significance. There does not appear to be a relationship between job variety and employee's behavioral commitment.

There is a positive relationship between job variety and employee's identity commitment. This is consistent with Lincoln and Kalleberg's finding. Lincoln and Kalleberg (1985, pp. 749) note that job complexity contributes to organizational commitment with data from a survey of over 8,000 employees in nearly 100 manufacturing plants in Japan and the United States. Their results suggest that effects of job complexity (measured by job variety and other four items) on organizational commitment are significantly larger in the U.S. while Japanese report less variety and freedom in their jobs (Lincoln and Kalleberg 1985, pp. 749).

There does not appear to be a relationship between job variety and employee's behavioral commitment. This is contrary to the literature's finding that job variety has positive relationship with organizational commitment.

The null hypothesis is that there is no relationship between employee's resources availability (AVAILRESINDEX) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .091 with a 2-tail probability of .005. We can reject the null hypothesis that there is no relationship between employee's resources availability and their identity commitment, because probability of .005 is less than the .05 convention for statistical significance. There is a positive relationship between employee's resource availability and their identity commitment.

The null hypothesis is that there is no relationship between employee's resources availability (AVAILRESINDEX) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .025 with a 2-tail probability of .442. We can not reject the null hypothesis that there is no relationship between employee's resources availability and their behavioral commitment, because probability of .442 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's resource availability and their behavioral commitment.

There is a positive relationship between employee's resource availability and their identity commitment. This is consistent with literature's finding that information sharing are thought to produce a sense of belonging (Okabe 2002, pp. 6). However, this is contrary to the prior Thai data study on which I based this study. Increasing job challenge and the rules, regulations, and resources to meet that challenge are thought to elicit and increased commitment from employees, Usui et al. (2005, pp. 7) did not find any relationship.

There does not appear to be a relationship between employee's resource availability and their behavioral commitment. This result is consistent with Usui et al.'s finding.

The null hypothesis is that there is no relationship between job flexibility (JOBFLEXINDEX) and employee's identity commitment. The appropriate technique is Pearson correlation. The correlation is .018 with a 2-tail probability of .576. We can not reject the null hypothesis that there is no relationship between job flexibility and employee's identity commitment, because the probability of .576 is more than the .05 convention for statistical significance. There does not appear to be a relationship between job flexibility and employee's identity commitment.

The null hypothesis is that there is no relationship between job flexibility (JOBFLEXINDEX) and employee's behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .045 with a 2-tail probability of .171. We can not reject the null hypothesis that there is no relationship between job flexibility and employee's behavioral commitment, because the probability of .171 is more than the .05 convention for statistical significance. There does not appear to be a relationship between job flexibility and employee's behavioral commitment.

There does not appear to be a relationship between job flexibility and employee's identity commitment. And there does not appear to be a relationship between job flexibility and employee's behavioral commitment. These findings are contrary to literature because the literature indicates that creation of job flexibility will maximize commitment and thus minimize absenteeism and turnover (Johns 2005, pp. 44). Eaton (2003, pp. 149) confirms the following two hypotheses that 1) flexibility policies will be

associated positively with affective organizational commitment; and 2) Organization's formal or informal policies (or practice) supporting employee's flexibility to manage work and family responsibilities will be positively related to employee's organizational commitment and perceived productivity. Another study conclude that accessing to flexible scheduling is predictive of lowered turnover intentions (Batt and P. Valcour 2003, pp. 211)

b. Structural characteristic variables with organizational commitment.

The null hypothesis is that there is no relationship between employee's perception towards rules (as measured by the degree of rules necessity they believe) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .177 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's attitude towards rules and their identity commitment, because probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's perception towards rules and identity commitment.

The null hypothesis is that there is no relationship between employee's perception towards rules (as measured by the degree of rules necessity they believe) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .105 with a 2-tail probability of .001. We can reject the null hypothesis that there is no relationship between employee's attitude towards rules and their behavioral commitment, because the probability of .001 is less than the .05 convention for statistical significance. There is a positive relationship between employee's perception towards rules and their behavioral commitment.

There is a positive relationship between employee's perception towards rules and their identity commitment and behavioral commitment. These results are consistent with literature. Lincoln and Kalleberg (1985, pp. 740) identify one of the characteristic of Japanese firms as "corporatist" structure is that its structures foster legitimacy and legal order within the firm, which lineate employee's obligations in an impersonal and legitimate fashion. After comparing human resources practices between Japanese and UK firms, Wood (1996, pp. 521) also suggests that Japanese firms have higher commitment management due to it is more able to transforms policies and philosophies into practice. This finding confirms that clear and challenging job assignments have positive influence on work commitment.

The null hypothesis is that there is no relationship between reliance on standard operating procedures (SOPINDEX) and employee's identity commitment. The appropriate technique is Pearson correlation. The correlation is .153 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between reliance on standard operating procedures and employee's identity commitment, because probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between reliance on standard operating procedures and employee's identity commitment.

The null hypothesis is that there is no relationship between reliance on standard operating procedures (SOPINDEX) and employee's behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .032 with a 2-tail probability of .326. We can not reject the null hypothesis that there is no relationship between reliance on standard operating procedures and employee's behavioral

commitment, because the probability of .326 is more than the .05 convention for statistical significance. There does not appear to be a relationship between reliance on standard operating procedures and employee's behavioral commitment.

There is a positive relationship between reliance on standard operating procedures and employee's identity commitment. This is consistent with literature. According to Lincoln and Kalleberg (1996, pp. 44), formal rules and procedures are characteristics of Japanese welfare corporatist form. By explicitly delineating and codifying employee rights and obligations, formalization protects employees from personal domination by supervisors and confers constitutional legitimacy on the firm. Formal rules and procedures safeguard employee rights while delineating obligations in an impersonal and legitimate fashion. Such formalization confers on each employee the status of corporate citizen as participant in an "internal state" (Lincoln and Kalleberg 1985, pp. 741). Thus it attributes to Japanese firm's high organizational commitment. They conclude that instead of standard operation procedures, unit/small-batch production is associated with lowered commitment to the organization in both Japanese and American firms. (Lincoln and Kalleberg 1985, pp. 757)

However there does not appear to be a relationship between reliance on standard operating procedures and employee's behavioral commitment, which is contrary to the literature. The results from my study confirm that standard operating procedures are positively related to identity commitment but not significantly related to behavioral commitment.

The null hypothesis is that there is no relationship between organization's levels of formalization (comsop3) and employee's identity commitment. The appropriate

technique is Pearson correlation. The correlation is .063 with a 2-tail probability of .054. We can not reject the null hypothesis that there is no relationship between organization's formal rules and employee's identity commitment, because the probability of .054 is more than the .05 convention for statistical significance. There does not appear to be a relationship between organization's levels of formalization and identity commitment.

The null hypothesis is that there is no relationship between organization's levels of formalization (comsop3) and employee's behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .100 with a probability of .002. We can reject the null hypothesis that there is no relationship between organization's formal rules and employee's behavioral commitment, because the probability of .002 is less than the .05 convention for statistical significance. There is a positive relationship between organization's levels of formalization and employee's behavioral commitment.

There does not appear to be a relationship between organization's levels of formalization and identity commitment. This is consistent with Lincoln and Kalleberg's finding. When pointing out that high formalization has been attributed to Japanese firms by several scholars, Lincoln and Kalleberg (1985, pp. 755) expect that formalization provides a constitutional framework of rights and obligations. However, their results indicate that there a significant negative effect of formalization on commitment in U.S, whereas in the Japanese sample, the formalization effect is positive but only on satisfaction and not on commitment. This is consistent with their 1996 work. They (Lincoln and Kalleberg 1996, pp. 56) find there is very little evidence for the welfare corporatist proposition that formalization increases commitment. Only the negative (but not significant) effect on quit rates in the Japanese sample tends to support that view. The

U.S. results are strongly supportive of the opposing claim that formal rules alienate workers: identification and attachment go down with formalization and quits go up.

I find a positive relationship between organization's levels of formalization and employee's behavioral commitment. This is contrary to Lincoln and Kalleberg's finding.

The null hypothesis is that there is no relationship between employee's decision making participation (PARTINDEX) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .058 with a 2-tail probability of .077. We can not reject the null hypothesis that there is no relationship between employee's decision making participation and employee's identity commitment, because the probability of .077 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's decision making participation and their identity commitment.

The null hypothesis is that there is no relationship between employee's decision making participation (PARTINDEX) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .049 with a 2-tail probability of .130. We can not reject the null hypothesis that there is no relationship between employee's decision making participation and employee's behavioral commitment, because the probability of .130 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's decision making participation and their behavioral commitment.

There does not appear to be a relationship between employee's decision making participation and their identity commitment or behavioral commitment. These results are contrary to literature. Lincoln and McBride (1987, pp. 299) suggest that Japanese

decentralized decision making styles rely on vertical bonds to motivate desired actions on the part of subordinates, in this way, the fostering of commitment appears to be the underlying rationale. Lincoln and Kalleberg (1985, pp. 740) emphasize that structures facilitating participation is the first feature of Japanese “corporatist” organization pattern, which leads to high commitment environment. They (1985, pp. 748) point out that Japanese firms provide greater inducements in participatory work roles than U.S. firms. Furthermore, they find that a key difference between participation in quality circles (QC) in Japan and the U.S. is that participation is near universal in the Japanese companies with programs in place. They conclude that QC is unrelated to employee’s work attitudes in U.S., while in Japan, it have a positive effect on commitment. (Lincoln and Kalleberg 1985, pp. 740)

The null hypothesis is that there is no relationship between employee’s job autonomy (AUTONINDEX) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .200 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee’s job autonomy and their identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee’s job autonomy and their identity commitment.

The null hypothesis is that there is no relationship between employee’s job autonomy (AUTONINDEX) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .088 with a 2-tail probability of .008. We can reject the null hypothesis that there is no relationship between employee’s job autonomy and their behavioral commitment, because the probability of .008 is less than

the .05 convention for statistical significance. There is a positive relationship between employee's job autonomy and their behavioral commitment.

There is a positive relationship between employee's job autonomy and their identity commitment and behavioral commitment. These findings are consistent with literature. Literature indicates that autonomy is one of the major features that have net effects on organizational commitment (Marsden et al. 1993, pp. 381). Johns' thesis (2005, pp. 40) also points out that autonomy is one of the strongest indicators of organizational commitment. Eaton (2003, pp. 48) supports the hypothesis that control or autonomy over time, pace, and spatial aspects of work itself is associated with positive organizational outcomes.

The null hypothesis is that there is no relationship between employee's cooperation within the organization (COOPINDEX) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .208 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's cooperation within the organization and their identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's cooperation within the organization and their identity commitment.

The null hypothesis is that there is no relationship between employee's cooperation within the organization (COOPINDEX) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .236 with 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's cooperation within the organization and their behavioral commitment,

because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's cooperation within the organization and their behavioral commitment.

There is a positive relationship between employee's cooperation within the organization and their identity commitment and behavioral commitment. These findings are consistent with literature. Lincoln and Kalleberg (1985, pp. 739) highlight group decision-making and teamwork as one of the features of corporatist organization, which represents an evolutionary advance over the market individualism. Lincoln and McBride (1987, pp. 304) also confirm that there is abundant evidence of organization commitment among the Japanese such as developing strong bonds with coworkers. Higher commitment structures facilitate integration, more contacts between employees, and must encourage employee's cooperation in their work task.

The null hypothesis is that there is no relationship between job hierarchical position (boss, recoded into a dummy variable where manager and supervisor=1, all others=0) and employee's identity commitment. The appropriate technique is Pearson correlation. The correlation is .048 with a 2-tail probability of .149. We can not reject the null hypothesis that there is no relationship between job hierarchical position and employee's identity commitment, because the probability of .149 is more than the .05 convention for statistical significance. There does not appear to be a relationship between job hierarchical position and employee's identity commitment.

The null hypothesis is that there is no relationship between job hierarchical position (boss, recoded into a dummy variable where manager and supervisor=1, all others=0) and employee's behavioral commitment. The appropriate technique is Pearson

correlation. The correlation is .159 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between job hierarchical position (manager and supervisor or not) and employee's behavioral commitment, because the probability of .000 is less than .05. There is a positive relationship between job hierarchical position and employee's behavioral commitment. Manager and supervisor have higher behavioral commitment than other job hierarchical positions have.

There does not appear to be a relationship between job hierarchical position and employee's identity commitment. This is contrary to literature. The literature has inconsistent findings. Accordingly to Lincoln and Kalleberg (1985, pp. 750), it is a near-universal finding that position in the organizational authority/status hierarchy should produce attitudes favorable to the firm. Meanwhile they also find that there is less inequality in the distribution of inducements over ranks in Japanese sample than in the U.S. sample, but there is greater disparities in the work attitudes of U.S. managers, supervisors, and workers than is apparent in the Japanese sample (Lincoln and Kalleberg 1985, pp. 750). However, by studying four organizations, Mowday et al. find (1982, pp. 33-34) that although different organizations manifest different overall levels of employee commitment, this commitment is equally strong up and down the organizational hierarchy. Top executives as a group are not more committed than service workers or blue-collar workers.

There is a positive relationship between job hierarchical position and employee's behavioral commitment. Manager and supervisor have higher behavioral commitment than other job hierarchical positions have. This is consistent with Lincoln and Kalleberg's conclusion in 1985, but contrary to Mowday et al.'s claim in 1982.

c. Work experience variables with organizational commitment.

The null hypothesis is that there is no relationship between employee's comparative pay (as measured by comparison of employee's pay with other workers in similar jobs) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .207 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's comparative pay and their identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's comparative pay and their identity commitment.

The null hypothesis is that there is no relationship between employee's comparative pay (as measured by comparison of employee's pay with other workers in similar jobs) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .101 with a 2-tail probability of .002. We can reject the null hypothesis that there is no relationship between employee's comparative pay and their behavioral commitment, because the probability of .002 is less than the .05 convention for statistical significance. There is a positive relationship between employee's comparative pay and their behavioral commitment.

There is a positive relationship between employee's comparative pay and both their identity commitment and behavioral commitment. These findings are consistent with most of the literature. Lincoln and Kalleberg's result is that earnings register small positive increments in the commitment of Japanese and Americans alike (Lincoln and Kalleberg 1985, pp. 748). Johns (2005, pp. 21-30, 33-38) also reports that earnings are positively related to three dimensions of organizational commitment: affective, effort and

continuance commitment in his bivariate correlation, whereas in his multivariate analysis, earnings are not found to be related any one of these three dimensions of organizational commitment. Similar findings are reported by Nijhof et al. (1998, pp. 246) that no meaningful correlation between the salary and commitment was found. Other findings are more country specific. Lincoln and Kalleberg (1996, pp. 54) in their 1996 comparative analysis, using early 1980s data, report that pay is a stronger motivator of only identification commitment in U.S. compared to Japan. Lincoln and McBride (1987, pp. 293) in their work summarized Lincoln and Kalleberg's 1985 finding that age, seniority, and marital status and a far greater influence on earnings in a Japanese sample, whereas job attributes and managerial rank play the larger role in determining pay in a comparable American sample.

The null hypothesis is that there is no relationship between employee's comparative benefits (comprben) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .199 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's comparative benefits and their identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's comparative benefits and their identity commitment.

The null hypothesis is that there is no relationship between employee's comparative benefits (comprben) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .106 with a 2-tail probability of .001. We can reject the null hypothesis that there is no relationship between employee's comparative benefits and their behavioral commitment, because the probability of .001 is

less than the .05 convention for statistical significance. There is a positive relationship between employee's comparative benefits and their behavioral commitment.

There is a positive relationship between employee's comparative benefits and both their identity commitment and behavioral commitment. These are consistent with literature. Lincoln and Kalleberg (1985, pp. 756) emphasize that the heavy use of welfare benefits is the central to accounts of high commitment in Japanese companies and corporatist organization. Another study indicates that nonmerit reward criteria are one of the major features that have net effects on organizational commitment (Marsden et al. 1993, pp. 381).

The null hypothesis is that there is no relationship between employee's comparative working hours (comprhrs) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .039 with a 2-tail probability of .242. We can not reject the null hypothesis that there is no relationship between employee's comparative working hours and their identity commitment, because the probability of .242 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's comparative working hours and their identity commitment.

The null hypothesis is that there is no relationship between employee's comparative working hours (comprhrs) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .080 with a 2-tail probability of .015. We can not reject the null hypothesis that there is no relationship between employee's comparative working hours and their behavioral commitment, because the probability of .015 is less than the .05 convention for statistical significance.

There is a positive relationship between employee's comparative working hours and their behavioral commitment.

There does not appear to be a relationship between employee's comparative working hours and their identity commitment. There is little literature on the effects of working hours on commitment. While this finding is contrary to Johns' (2005, pp. 26) result that individuals justify working longer hours by developing attitudinal commitments to the organization. However, in his multivariate analysis, working hours have no relationship with any of three dimension of organizational commitment (Johns 2005, pp. 33-38).

There is a positive relationship between employee's comparative working hours and their behavioral commitment. This is consistent with Becker's side-bet thesis used by Johns. It is found that individuals find themselves invested in an organization and increase their effort to maintain their position.

The null hypothesis is that there is no relationship between employee's job satisfaction (SATIINDEX) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .429 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's job satisfaction and their identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's job satisfaction and their identity commitment.

The null hypothesis is that there is no relationship between employee's job satisfaction (SATIINDEX) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .187 with a 2-tail probability of .000. We can

reject the null hypothesis that there is no relationship between employee's job satisfaction and their behavioral commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's job satisfaction and their behavioral commitment.

There is a positive relationship between employee's job satisfaction and both their identity commitment and behavioral commitment. These are consistent with some findings of literature. Johns' thesis (2005, pp. 40) concludes that job satisfaction is significant for all three measures of commitment for both the bivariate correlations and the regression analyses. Job satisfaction is a positive predictor of company commitment (Snape and Chan 2000, pp. 452). However, Lincoln and Kalleberg (1985, pp. 738) point out that a consistent finding is that Japanese employees report lower job satisfaction than Americans when exploring the determinants of high commitment in Japanese firms. It also suggests low satisfaction may be coupled with high commitment in Japanese firms (Lincoln and McBride 1987, pp. 304).

The null hypothesis is that there is no relationship between management aloofness (commngstick) and employee's identity commitment. The appropriate technique is Pearson correlation. The correlation is -.209 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between management aloofness and employee's identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a negative relationship between management aloofness and employee's identity commitment.

The null hypothesis is that there is no relationship between management aloofness (commngstick) and employee's behavioral commitment. The appropriate technique is

Pearson correlation. The correlation is $-.074$ with a probability of $.023$. We can reject the null hypothesis that there is no relationship between management aloofness and employee's behavioral commitment, because the significance level of $.023$ is less than the $.05$ convention for statistical significance. There is a negative relationship between management aloofness and their employee's behavioral commitment.

There is a negative relationship between management aloofness and both employee's identity commitment and behavioral commitment. The finding about identity commitment is consistent with previous Thai data study by Usui et al. (2005, pp. 11). They find a negative relationship between management aloofness and identification commitment in Japanese firms. The negative relationship of identification commitment with employee perceptions of management aloofness supports a broadly held characterization for Japanese management of transplant firms that hinders integration of local workers and their organizational commitment. It was thought that good and regular communication and contact with subordinates are expected contributes to a high commitment work environment.

The null hypothesis is that there is no relationship between employee's personal relationships with supervisors (superlife2r) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is $.280$ with a 2-tail probability of $.000$. We can reject the null hypothesis that there is no relationship between employee's personal relationships with supervisors and their identity commitment, because the probability of $.000$ is less than the $.05$ convention for statistical significance. There is a positive relationship between employee's personal relationships with supervisors and their identity commitment.

The null hypothesis is that there is no relationship between employee's personal relationships with supervisors (superlife2r) and their behavioral commitment. The appropriate technique is to Pearson correlation. The correlation is .147 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's personal relationships with supervisors and their behavioral commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's personal relationships with supervisors and their behavioral commitment.

There is a positive relationship between employee's personal relationships with supervisors and their identity commitment and behavioral commitment. These are consistent with literature. Lincoln and McBride (1987, pp. 298) argue that the social relations between superiors and subordinates in Japanese firms emphasize status difference, and high degree of institutionalization in a set of standard ranks. However, Lincoln and Kalleberg (1985, pp. 750) point out that many observers affirm that Japanese firms make a point of eliminating the symbolic trappings of status (e.g. no way/salary distinction, uniforms at all levels, shared parking lots and dining halls, etc) It seems Japanese firms take a substantial measure to balance status inequality while still keep a set of formal standard ranks in the work place. Batt and Valcour (2003, pp. 211) in their work conclude that supervisor support is associated with lower levels of work-family conflict and turnover intentions. I assume that in personal life, an equalized relationship would promote organizational commitment, and the result confirms my hypothesis.

The null hypothesis is that there is no relationship between employee's personal contacts within the organization (CONTACTINDEX) and their identity commitment. The

appropriate technique is Pearson correlation. The correlation is .013 with a of 2-tail probability of .691. We can not reject the null hypothesis that there is no relationship between employee's personal contacts within the organization and their identity commitment, because the probability of .691 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's personal contacts within the organization and their identity commitment.

The null hypothesis is that there is no relationship between employee's personal contacts within the organization (CONTACTINDEX) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .001 with a probability of .977. We can not reject the null hypothesis that there is no relationship between employee's personal contacts within the organization and their behavioral commitment, because the probability of .977 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's personal contacts within the organization and their behavioral commitment.

There does not appear to be a relationship between employee's personal contacts within the organization and their identity commitment. And there does not appear to be a relationship between employee's personal contacts within the organization and their behavioral commitment. These are contrary to literature. One characteristic Lincoln and Kalleberg (1985, pp. 740) identified Japanese firms' high commitment is their structures facilitating integration and they encourage contacts and dependency relations across class and status barriers. It was thought that the greater the social interaction, contacts, or friendships of the employee, the more social ties the employee develops in the

organization and the more the individual becomes attached to the employer (Usui et al. 2005, pp. 9). However, my findings did not support this idea.

The null hypothesis is that there is no relationship between employees' number of friends (friends) within the organization and their identity commitment. The appropriate technique is Pearson correlation. The correlation is .139 with a 2-tail probability of .000. We can not reject the null hypothesis that there is no relationship between employee's number of friends within the organization and their identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's number of friends within the organization and their identity commitment.

The null hypothesis is that there is no relationship between employees' number of friends (friends) within the organization and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is -.111 with a probability of .001. We can reject the null hypothesis that there is no relationship between employee's number of friends within the organization and their behavioral commitment, because the significance level of .001 is less than the .05 convention for statistical significance. There is a negative relationship between employee's number of friends within the organization and their behavioral commitment.

There is a positive relationship between employee's number of friends within the organization and their identity commitment. There is a negative relationship between employees' number of friends within the organization and their behavioral commitment. The result that employee's number of friends positively related to their identity commitment is consistent with Lincoln and Kalleberg's 1985 finding. Lincoln and

Kalleberg (1985, pp. 748) use the number of close friends as one of the items to measure the intrinsic incentives. They find that this measure is positive linked to commitment. They confirm Cole and Rohlen's finding that friendship bonds is the only inducement to be higher in the Japanese plants (Lincoln and Kalleberg 1985, pp. 749). However, this finding is contrary to their 1996's research, where Lincoln and Kalleberg (1996, pp. 56) conclude that in America, friendship ties reduce identification but they also lower quits. They do not affect attachment. In Japan, friendships reduce both identification and attachment. My finding that employee's number of friends negatively related to their behavioral commitment is consistent with Lincoln and Kalleberg's 1996 results.

d. Personal characteristics with organizational commitment.

The null hypothesis is that there is no relationship between employee's sex (sex1, recoded into a dummy variable where female= 1, male =0) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is -.122 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's sex and their identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. These are a negative relationship between sex and identity commitment. Females have lower identity commitment than males.

The null hypothesis is that there is no relationship between employee's sex (sex1, recoded into a dummy variable where female= 1, male =0) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .040 with a 2-tail probability of .219. We can not reject the null hypothesis that there is no relationship between employee's sex and their behavioral commitment, because the

significance level of .219 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's sex and their behavioral commitment.

There is a negative relationship between sex and identity commitment. Females have lower identity commitment than males. Previous research shows inconsistent result on gender difference of organizational commitment. My finding on identity commitment is consistent with some of the literature. Dodd-McCue and Wright (1996, pp. 1065) found that men reported significantly higher ratings for both organizational involvement and job satisfaction. Women have less attitudinal commitment than men. Lincoln and Kalleberg's study on 41 manufacturing plants in Japan and 45 in the United concludes that: heavily female plants will exhibit less commitment in both countries, and that this association will be stronger in Japan because of greater gender discrimination in wages, promotions, and other job rewards. Higher quit rates associated with percentage female raised in Japan than in American because of marriage and childbearing (Lincoln and Kalleberg 1996, pp. 47). Marsden et al. (1993, pp. 368) reported a small but significant tendency for men to display higher organizational commitment than women when using 1991 GSS. Their results show that men score significantly higher on the commitment scale than so women.

However, my finding on identity commitment is contrary to other literature. In their 1990's study, Lincoln and Kalleberg find women have less opportunities with other organizations and overcome more barriers to get where they are, thus they are more likely to be committed to their organizations (Lincoln and Kalleberg 1990, pp. 154). Other articles find no gender differences in organizational commitment. Velde (2003, pp. 3)

finds that when controlling for age, gender did not have significant major effect on work attitude, when looking at affective commitment. Rosin and Koabik (1995, pp. 8) have similar result: when controlling for age and experience there are no sex differences in work commitment. Eaton (2003, pp. 149) also confirms her hypothesis that for workers with similar jobs, affective commitment will not vary by sex.

My finding that there does not appear to be a relationship between employee's sex and their behavioral commitment is consistent with Rosin and Koabik's result. But contrary to other literature that find female are more or less committed than male employees.

The null hypothesis is that there is no relationship between employee's age and their identity commitment. The appropriate technique is Pearson correlation. The correlation is $-.024$ with a 2-tail probability of $.475$. We can not reject the null hypothesis that there is no relationship between employee's age and their identity commitment, because the probability of $.475$ is more than the $.05$ convention for statistical significance. There does not appear to be a relationship between employee's age and their identity commitment.

The null hypothesis is that there is no relationship between employee's age and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is $.153$ with a 2-tail probability of $.000$. We can reject the null hypothesis that there is no relationship between employee's age and their behavioral commitment, because the significance level of $.000$ is less than the $.05$ convention for statistical significance. There is a positive relationship between employee's age and their behavioral commitment.

There does not appear to be a relationship between employee's age and their identity commitment. This result is contrary to some literature. Dodd-McCue and Wright (1996, pp. 1081) study attitudinal commitment of a group of accounting professionals to determine its origins and whether it differs for men and women. They find that age and importance of career were positively linked with women's organizational involvement but not men's. Snape and Chan (2000, pp. 452) also find that employee's organizational commitment is associated with older workers and females after examining the pattern and antecedents of employees' commitment to company and union in a public utility of Hong Kong. In contrast to their findings, I can not find the relationship between age and identity commitment.

The result that age is positively related to behavioral commitment is consistent with above literature.

The null hypothesis is that there is no relationship between employee's tenure (yearscom) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is $-.020$ with a 2-tail probability of $.538$. We can not reject the null hypothesis that there is no relationship between employee's tenure and their identity commitment, because the probability of $.538$ is more than the $.05$ convention for statistical significance. There does not appear to be a relationship between employee's tenure and their identity commitment.

The null hypothesis is that there is no relationship between employee's tenure (yearscom) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is $.065$ with a 2-tail probability of $.049$. We can reject the null hypothesis that there is no relationship between employee's tenure and their behavioral

commitment, because the probability of .049 is less than the .05 convention for statistical significance. There is a positive relationship between employee's tenure and their behavioral commitment.

There does not appear to be a relationship between employee's tenure and their identity commitment. The literature itself has inconsistent findings. My result consistent with Lincoln and Kalleberg's finding. They (Lincoln and Kalleberg 1985, pp. 750) note that there is little evidence, that tenure engenders either satisfaction or commitment. There is a positive relationship between employee's tenure and their behavioral commitment. However, my findings that tenure has no relationship between identity commitment, and positive relationship with behavioral commitment are contrary to most of the other literature which indicate that there is negative relationship between tenure and organizational commitment.

The null hypothesis is that there is no relationship between employee's education (years) and their identity commitment. The appropriate technique is Pearson correlation. The correlation is -.044 with a 2-tail probability of .178. We can not reject the null hypothesis that there is no relationship between employee's education and their identity commitment, because the probability of .178 is more than the .05 convention for statistical significance. There does not appear to be a relationship between employee's education and their identity commitment.

The null hypothesis is that there is no relationship between employee's education (years) and their behavioral commitment. The appropriate technique is Pearson correlation. The correlation is .140 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between employee's education and their identity

commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a positive relationship between employee's education and their behavioral commitment

There does not appear to be a relationship between employee's education and their identity commitment. There is a positive relationship between employee's education and their behavioral commitment. This is contrary to the literature. Lincoln and Kallberg (1985, pp. 749) report that education has negative effect on satisfaction and commitment. They note that highly educated workers have higher expectations that the organization is unable to meet thus negatively affecting organizational commitment (Lincoln and Kalleberg 1990, pp. 156). Johns (2005, pp. 20) also finds that education is positively related to affective commitment, but have no relationship with either effort or continuance commitment in his bivariate analysis, while turning to multivariate analysis, he find that there is no relationship between education and either affective or effort commitment and it is only found to be negatively related to continuance commitment.

e. Other variables with organizational commitment

The null hypothesis is that there is no relationship between firm's home country (country, recoded into a dummy variable where Japanese=1, U.S.=0) and employee's identity commitment. The appropriate technique is Pearson correlation. The correlation is -.125 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between firm's home country and employee's identity commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a negative relationship between firm's home country and their identity commitment.

Employees of Japanese firms in Thailand have lower identity commitment than employees of U.S. firms in Thailand.

The null hypothesis is that there is no relationship between firm's home country (country, recoded into a dummy variable where Japanese=1, U.S. =0) and employee's behavioral commitment. The appropriate technique is Pearson correlation. The correlation is -.133 with a 2-tail probability of .000. We can reject the null hypothesis that there is no relationship between firm's home country and employee's behavioral commitment, because the probability of .000 is less than the .05 convention for statistical significance. There is a negative relationship between firm's home country and their behavioral commitment. Employees of Japanese firms in Thailand have lower behavioral commitment than employees of U.S. firms in Thailand.

Employees of Japanese firms in Thailand have lower identity commitment than employees of U.S. firms in Thailand. Employees of Japanese firms in Thailand have lower behavioral commitment than employees of U.S. firms in Thailand. These are consistent with literature. Lincoln and Kalleberg have some comparative research on organizational commitment gap between Japanese and American firms. They (1985, pp. 756) point out that many previous study on this thesis characterize Japanese employment system as "welfare corporatist", which implies a bundle of structure and practices in the firm designed to increase the organizational commitment of employees and to dissolve competing loyalties based on class, union and occupation. In their study, they do find that some notable support in their data for the proposition that aspects of corporatist organization contribute to commitment in both countries (Lincoln and Kalleberg 1985, pp. 757) and evidence of greater commitment in Japan (Lincoln and Kalleberg 1985, pp. 758).

However, much of their analysis turned in negative findings on the prediction that these and other corporatist work structures promote workforce commitment. Such as findings about tenure and formalization behaved. Finally they conclude that there is genuine that Japanese firms have assembled a system of organization and employment which does enhance the commitment of employees, even as it makes heavy demands on them. In their 1996's finding, Lincoln and Kalleberg (1996, pp. 46, 52) have the similar repost. Usui et al. conclude that there is a consistent finding that Japanese employees represent lower levels of commitment and job satisfaction than their American counterparts (Usui et al. 2005, pp. 3).

The null hypothesis is that there is no relationship between industry (companye, recoded into a dummy variable where electronic company=1, others=0) and employee's identity commitment. The appropriate technique is Pearson correlation. The correlation is .115 with a 2-tail probability of .001. We can reject the null hypothesis that there is no relationship between industry and employee's identity commitment, because the probability of .001 is less than the .05 convention for statistical significance. There is a positive relationship between industry and identity commitment. Employees of electronic companies in Thailand have higher identity commitment than employees other companies in Thailand.

The null hypothesis is that there is no relationship between industry (companye, recoded into a dummy variable where electronic company=1, others=0) and employee's behavioral commitment. The appropriate technique is Pearson correlation. The correlation is -.069 with a 2-tail probability of .037. We can reject the null hypothesis that there is no relationship between industry and employee's behavioral commitment,

because the probability of .037 is less than the .05 convention for statistical significance. There is a negative relationship between industry and behavioral commitment. Employees of electronic companies in Thailand have lower behavioral commitment than employees of other companies in Thailand.

C. Multivariate Analysis

1. Checking for multicollinearity

Tolerance measure the strength of the linear relationships among the independent variables. For each independent variable, the tolerance is the proportion of variability of that variable that is not explained by its linear relationships with the other independent variables in the model. Since tolerance is a proportion, its values range from 0 to 1. A value close to 1 indicates that an independent variable has little of its variability explained by the other independent variables. A value close to 0 called multicollinear which indicates that a variable is almost a linear combination of the other independent variables. If tolerances are smaller than .1, multicollinear may be a problem (Norusis 2004, pp. 529-530). When I run the regression selecting the collinearity diagnostics in the linear regression statistics dialog box, I found that the tolerance of age and tenure are .319 and .379, which are much lower than those of the other independent variables. The variance inflation factor is 3.138 and 2.636, which are much higher than those of the other independent variables. Although multicollinear is not a problem in this case, age and tenure share some of the variance and they are almost linear combinations of each other. One of them should be removed. When I remove age variable, the r square is .337 for identity commitment and the .171 for behavioral commitment. However, when I

remove tenure variable, r square remains .337 for identity commitment and increases to .175 for behavioral commitment. R squares for behavioral commitment are higher when removing tenure than removing age. So tenure is removed from the independent variables list.

2. Multivariate analysis for general model

Whereas bivariate analysis allows for some simple explanations of human thoughts and behaviors, multivariate analysis permits more sophisticated investigations and discoveries by controlling for the combination of other independent variables in the model. The previous section examined the relationship between the bivariate analysis and the literature. This section will compare the multivariate findings to the bivariate analysis as well as the literature. The results of the multivariate analysis show in table 3.

The regression analyses between identity commitment and the independent variables had a multiple r-square of .337. Those variables found to be significant are VARIETYINDEX, RulesNec, SOPINDEX, AUTONINDEX, COOPINEX, SATINDEX, management aloofness, superlife2r, friends, country and companye.

The regression analyses between behavioral commitment and the independent variables had a multiple r-square of .175. Those variables found to be significant are COOPINEX, SATINDEX, superlife2r, friends, sex, age and country.

a. Job-related variables with organizational commitment

The null hypothesis is that there is no relationship between job variety (VARIETYINDEX) and employee's identity commitment. Job variety is positive related to employee's identity commitment with an unstandardized coefficient of .034 and a t-

value of 1.973. The probability of finding these values is .049 therefore we may reject the null hypothesis. The unstandardized coefficient of .034 concludes that for every one-unit increase in job variety, identity commitment increases by .034 units.

The null hypothesis is that there is no relationship between job variety (VARIEITYINDEX) and employee's behavioral commitment. Job variety is found to be not related to employee's behavioral commitment with an unstandardized coefficient of -.015, a t-value of -1.431, and significance of .153. Therefore, we can not reject the null hypothesis.

These findings that job variety is positive related to identity commitment but has no relationship with behavioral commitment are consistent with the bivariate analysis. Literature has found organizational commitment increases with job variety. However, contrary to the literature, behavioral commitment is found to be not related to job variety on both bivariate and multivariate analysis.

The null hypothesis is that there is no relationship between employee's resources availability (AVAILRESINDEX) and their identity commitment. Employee's resources availability is found to be not related to identity commitment with an unstandardized coefficient of .003, a t-value of .132 and significance of .895. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's resources availability (AVAILRESINDEX) and their behavioral commitment. Employee's resources availability is found to be not related to behavioral commitment with an unstandardized coefficient of -.003, a t-value of -.195 and significance of .846. Therefore, we can not reject the null hypothesis.

Although bivariate analysis found that availability of resources is positively related to identity commitment, multivariate analysis not find it neither have any relationship to identity commitment or behavioral commitment. These findings are consistent with Usui et al.'s results.

The null hypothesis is that there is no relationship between job flexibility (JOBFLEXINDEX) and employee's identity commitment. Job flexibility is found to be not related to identity commitment with an unstandardized coefficient of .039, a t-value of 1.903 and significance of .057. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between job flexibility (JOBFLEXINDEX) and employee's behavioral commitment. Job flexibility is found to be not related to behavioral commitment with an unstandardized coefficient of 0.000, a t-value of -.030 and significance of .976. Therefore, we can not reject the null hypothesis.

These findings are consistent with bivariate analysis. Job flexibility is found to have no relationship with identity or behavioral commitment. However, it is contrary to the literature on organizational commitment.

b. Structural characteristic variables with organizational commitment

The null hypothesis is that there is no relationship between employee's attitude towards rules (RulesNec, as measured by the degree of rules necessity they believe) and their identity commitment. Employee's attitude towards rules is positive related to employee's identity commitment with an unstandardized coefficient of .125 and a t-value of 2.444. The probability of finding these values is .015 therefore we may reject the null hypothesis. The unstandardized coefficient of .125 concludes that for every one-unit

increase in degree of rules necessity they believe, identity commitment increases by .125 units.

The null hypothesis is that there is no relationship between employee's attitude towards rules and their behavioral commitment. Employee's attitude towards rules is found to be not related to behavioral commitment with an unstandardized coefficient of .047, a t-value of 1.460 and significance of .145. Therefore, we can not reject the null hypothesis.

Although bivariate analysis found that employee's attitude towards rules and regulations is positive related to both identity and behavioral commitment, multivariate analysis only confirms its relationship with identity commitment. Contrary to literature, behavioral commitment is found to be not related to rules and regulations applied to work.

The null hypothesis is that there is no relationship between reliance on standard operating procedures (SOPINDEX) and employee's identity commitment. Reliance on standard operating procedures is positive related to employee's identity commitment with an unstandardized coefficient of .076 and a t-value of 3.070. The probability of finding these values is .002 therefore we may reject the null hypothesis. The unstandardized coefficient of .076 concludes that for every one-unit increase in reliance on standard operating procedures, identity commitment increases by .076 units.

The null hypothesis is that there is no relationship between reliance on standard operating procedures (SOPINDEX) and employee's behavioral commitment. Reliance on standard operating procedures is found to be not related to behavioral commitment with an unstandardized coefficient of .008, a t-value of .544 and significance of .586. Therefore, we can not reject the null hypothesis.

These findings are consistent with my bivariate analysis. Consistent with the literature, standard operation procedures is positive related to identity commitment. However, I did not find it has positive relationship with behavioral commitment as the literature indicates.

The null hypothesis is that there is no relationship between organization's formalization (comsop3) and employee's identity commitment. Organization's formalization is found to be not related to identity commitment with an unstandardized coefficient of .020, a t-value of .523 and significance of .601. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between organization's formalization (comsop3) and employee's behavioral commitment. Organization's formalization is found to be not related to behavioral commitment with an unstandardized coefficient of .036, a t-value of 1.493 and significance of .136. Therefore, we can not reject the null hypothesis.

Bivariate analysis finds that formalization has no relationship with identity commitment and has positive relationship with behavioral commitment. Multivariate analysis is consistent with Lincoln and Kalleberg's finding that there is no relationship between them.

The null hypothesis is that there is no relationship between employee's decision making participation (PARTIINDEX) and their identity commitment. Decision making participation is found to be not related to identity commitment with an unstandardized coefficient of .008, a t-value of .533 and significance of .594. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's decision making participation (PARTINDEX) and their behavioral commitment. Employee's decision making participation is found to be not related to behavior commitment with an unstandardized coefficient of .001, a t-value of .154 and significance of .878. Therefore, we can not reject the null hypothesis.

These findings are consistent with bivariate analysis, but contrary to literature. The literature indicates that there is a positive relationship between participation and organizational commitment.

The null hypothesis is that there is no relationship between employee's job autonomy (AUTONINDEX) and their identity commitment. Job autonomy is positive related to employee's identity commitment with an unstandardized coefficient of .043 and a t-value of 2.446. The probability of finding these values is .015 therefore we may reject the null hypothesis. The unstandardized coefficient of .044 concludes that for every one-unit increase in autonomy, identity commitment increases by .043 units.

The null hypothesis is that there is no relationship between employee's job autonomy (AUTONINDEX) and their behavioral commitment. Autonomy is found to be not related to behavior commitment with an unstandardized coefficient of .013, a t-value of 1.207 and significance of .228. Therefore, we can not reject the null hypothesis.

The result that there is a positive relationship between autonomy and identity commitment is consistent with bivariate analysis and literature. However, contrary to bivariate analysis and literature, no relationship can be found between autonomy and behavioral commitment in multivariate analysis.

The null hypothesis is that there is no relationship between employee's cooperation within the organization (COOPINDEX) and their identity commitment. Cooperation within the organization is positive related to employee's identity commitment with an unstandardized coefficient of .157 and a t-value of 5.029. The probability of finding these values is .000 therefore we may reject the null hypothesis. The unstandardized coefficient of .157 concludes that for every one-unit increase in cooperation, identity commitment increases by .157 units.

The null hypothesis is that there is no relationship between employee's cooperation within the organization (COOPINDEX) and their behavioral commitment. Cooperation within the organization is positive related to employee's behavioral commitment with an unstandardized coefficient of .119 and a t-value of 6.056. The probability of finding these values is .000 therefore we may reject the null hypothesis. The unstandardized coefficient of .119 concludes that for every one-unit increase in cooperation, behavioral commitment increases by .119 units.

These results are consistent with both literature and bivariate analysis.

The null hypothesis is that there is no relationship between job hierarchical position (boss, recoded into a dummy variable where manager and supervisor=1, all others=0) and employee's identity commitment. Job hierarchical position is found to be not related to identity commitment with an unstandardized coefficient of .164, a t-value of 1.357 and significance of .175. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between job hierarchical position (recoded into a dummy variable where manager and supervisor=1, all others=0) and employee's behavioral commitment. Job hierarchical position is found to be not

related to behavioral commitment with an unstandardized coefficient of .129, a t-value of 1.696 and significance of .090. Therefore, we can not reject the null hypothesis.

These findings are contrary to literature because Lincoln and Kalleberg (1985, pp. 750) suggest that managers and supervisors have higher organizational commitment than other hierarchical positions. Mowday et al. (1982, pp. 33-34) find that top executives as a group are not more committed than service workers or blue-collar workers. The finding that there is no relationship between job hierarchical position and behavioral commitment is contrary to bivariate result. However, the finding that there is no relationship between identity commitment and job hierarchical position is consistent with bivariate analysis.

c. Work experience variables with organizational commitment

The null hypothesis is that there is no relationship between employee's comparative pay (comprpay, as measured by comparison of employee's pay with other workers in similar jobs) and their identity commitment. Comparative pay is found to be not related to identity commitment with an unstandardized coefficient of .081, a t-value of .983 and significance of .326. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's comparative pay (comprpay, as measured by comparison of employee's pay with other workers in similar jobs) and their behavioral commitment. Employee's comparative pay is found to be not related to behavior commitment with an unstandardized coefficient of .053, a t-value of 1.025 and significance of .305. Therefore, we can not reject the null hypothesis.

Earnings are found to be related to neither identity nor behavioral commitment. These findings are contrary to most literature and my bivariate analysis. However, they

are consistent with Nijhof et al.'s work and Johns' thesis. Hijihi et al. (1998, pp. 246) find that there is no meaningful correlation between the salary and commitment. Johns (2005, pp. 21-30, 33-38) also reports that earnings are positively related to three dimensions of organizational commitment: affective, effort and continuance commitment in his bivariate correlation, whereas in his multivariate analysis, earnings are not found to be related any one of these three dimensions of organizational commitment.

The null hypothesis is that there is no relationship between employee's comparative benefits (comprben, as measured by comparison of employee's benefits with other workers in similar jobs) and their identity commitment. Comparative benefits are found to be not related to identity commitment with an unstandardized coefficient of .104, a t-value of 1.348 and significance of .178. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's comparative benefits (comprben, as measured by comparison of employee's benefits with other workers in similar jobs) and their behavioral commitment. Employee's comparative benefits are found to be not related to behavior commitment with an unstandardized coefficient of .053, a t-value of 1.084 and significance of .279. Therefore, we can not reject the null hypothesis.

These findings are contrary to literature and my bivariate analysis, which indicate that there are positive relationship between benefits and organizational commitment.

The null hypothesis is that there is no relationship between employee's comparative working hours (comprhrs, as measured by comparison of working hours with other workers in Thailand) and their identity commitment. Comparative working

hours is found to be not related to identity commitment with an unstandardized coefficient of .076, a t-value of .879 and significance of .379. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's comparative working hours (comprhrs, as measured by comparison of working hours with other workers in Thailand) and their behavioral commitment. Comparative working hours is found to be not related to behavioral commitment with an unstandardized coefficient of .076, a t-value of 1.405 and significance of .160. Therefore, we can not reject the null hypothesis.

The finding that there is no relationship between working hours and identity commitment is consistent with bivariate analysis. Contrary to vivariate analysis, no relationship between working hours and behavioral commitment can be found in multivariate analysis. However, these findings are consistent with Johns' thesis. Working hours have no relationship with any of three dimension of organizational commitment in his multivariate analysis (Johns 2005, pp. 33-38).

The null hypothesis is that there is no relationship between employee's job satisfaction (SATIINDEX) and their identity commitment. Job satisfaction is positive related to employee's identity commitment with an unstandardized coefficient of .156 and a t-value of 8.988. The probability of finding these values is .000 therefore we may reject the null hypothesis. The unstandardized coefficient of .156 concludes that for every one-unit increase in job satisfaction, identity commitment increases by .156 units.

The null hypothesis is that there is no relationship between employee's job satisfaction (SATIINDEX) and their behavioral commitment. Job satisfaction is positive

related to employee's behavioral commitment with an unstandardized coefficient of .038 and a t-value of 3.446. The probability of finding these values is .001 therefore we may reject the null hypothesis. The unstandardized coefficient of .038 concludes that for every one-unit increase in job satisfaction, behavioral commitment increases by .038 units.

These findings that job satisfaction are positive related to both identity commitment and behavioral commitment are consistent with literature and my previous bivariate analysis.

The null hypothesis is that there is no relationship between management aloofness (commngstick) and employee's identity commitment. Management aloofness is negative related to employee's identity commitment with an unstandardized coefficient of -.101 and a t-value of -.2766. The probability of finding these values is .006 therefore we may reject the null hypothesis. The unstandardized coefficient of -.101 concludes that for every one-unit increase in management aloofness, identity commitment decreases by .101 units.

The null hypothesis is that there is no relationship between management aloofness (commngstick) and employee's behavioral commitment. Management aloofness is found to be not related to behavior commitment with an unstandardized coefficient of .012, a t-value of .506 and significance of .613. Therefore, we can not reject the null hypothesis.

The finding that management aloofness is negative related to employee's identity commitment is consistent with literature and my bivariate analysis. However, contrary to my bivariate analysis, no relationship between management aloofness and behavioral commitment can be found in multivariate analysis.

The null hypothesis is that there is no relationship between employee's personal relationships with supervisors (superlife2r, as measured by degree of confidence in supervisor about their personal life) and their identity commitment. Personal relationships with supervisors are positive related to employee's identity commitment with an unstandardized coefficient of .203 and a t-value of 4.794. The probability of finding these values is .000 therefore we may reject the null hypothesis. The unstandardized coefficient of .203 concludes that for every one-unit increase in personal relationships with supervisors, identity commitment increases by .203 units.

The null hypothesis is that there is no relationship between employee's personal relationships with supervisors (superlife2r, as measured by degree of confidence in supervisor about their personal life) and their behavioral commitment. Personal relationships with supervisors are positive related to employee's behavioral commitment with an unstandardized coefficient of .105 and a t-value of 3.946. The probability of finding these values is .000 therefore we may reject the null hypothesis. The unstandardized coefficient of .105 concludes that for every one-unit increase in personal relationships with supervisors, behavioral commitment increases by .105 units.

These findings are consistent with literature and my bivariate analysis.

The null hypothesis is that there is no relationship between employee's personal contacts within the organization (CONTACTINDEX) and their identity commitment. Personal contacts are found to be not related to identity commitment with an unstandardized coefficient of -.003, a t-value of -.251 and significance of .802. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's personal contacts within the organization (CONTACTINDEX) and their behavioral commitment. Personal contacts are found to be not related to behavioral commitment with an unstandardized coefficient of $-.005$, a t-value of $-.579$ and significance of $.563$. Therefore, we can not reject the null hypothesis.

These findings are contrary to the literature, which indicate the more personal contacts the more organizational commitment. However, these findings are consistent with my bivariate analysis.

The null hypothesis is that there is no relationship between employee's number of friends (friends) within the organization and their identity commitment. Friends are positive related to employee's identity commitment with an unstandardized coefficient of $.155$ and a t-value of 3.550 . The probability of finding these values is $.000$ therefore we may reject the null hypothesis. The unstandardized coefficient of $.155$ concludes that for every one-unit increase in friends, identity commitment increases by $.155$ units.

The null hypothesis is that there is no relationship between employee's number of friends within the organization and their behavioral commitment. Friends are negative related to employee's identity commitment with an unstandardized coefficient of $-.083$ and a t-value of -3.029 . The probability of finding these values is $.003$ therefore we may reject the null hypothesis. The unstandardized coefficient of $-.083$ concludes that for every one-unit increase in friends, behavioral commitment decrease by $.083$ units.

These findings are consistent with my bivariate analysis that indicates that friendship has positive relationship with identity commitment but has negative relationship with behavioral commitment. The result that friendship has positive

relationship with identity commitment is consistent with Lincoln and Kalleberg's 1985 finding but contrary to their 1996 finding. The result that friendship has negative relationship with behavioral commitment is contrary to literature.

d. Personal characteristics with organizational commitment

The null hypothesis is that there is no relationship between employee's sex (sex1, recoded into a dummy variable where female= 1, male =0) and their identity commitment. Sex is found to be not related to identity commitment with an unstandardized coefficient of -.081, a t-value of -.835 and significance of .404. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's sex (sex1, recoded into a dummy variable where female= 1, male =0) and their behavioral commitment. Sex is positive related to employee's behavioral commitment with an unstandardized coefficient of .132 and a t-value of 2.156. The probability of finding these values is .031 therefore we may reject the null hypothesis. The unstandardized coefficient of .132 indicates that controlling for all other independent variables in the model, when an organization or unit goes from all males to all female employees, there will be a .132 unit increase in behavioral commitment.

These findings are contrary to bivariate analysis, which find the females have lower identity commitment than males, and there is no gender difference on behavioral commitment. The finding that there is no gender difference on identity commitment in multivariate analysis is consistent with some literature. Velde (2003, pp. 3) finds that when controlling for age, gender did not have significant major effect on work attitude, when looking at affective commitment. Rosin and Koabik (1995, pp. 8) have similar

result: when controlling for age and experience there are no sex differences in work commitment. Eaton (2003, pp. 149) also confirms her hypothesis that for workers with similar jobs, affective commitment will not vary by sex. However, it is contrary to other findings that find gender difference on organizational commitment. The result that females have higher behavioral commitment than males in my multivariate analysis is consistent with Lincoln and Kalleberg's 1990 finding. In their 1990's study, Lincoln and Kalleberg find women have less opportunities with other organizations and overcome more barriers to get where they are, thus they are more likely to be committed to their organizations (Lincoln and Kalleberg 1990, pp. 154). However, it is contrary to other literature that finds females have lower organizational commitment and there is no gender difference on organizational commitment.

The null hypothesis is that there is no relationship between employee's age (age) and their identity commitment. Age is found to be not related to identity commitment with an unstandardized coefficient of $-.008$ a t-value of $-.960$ and significance of $.337$. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's age and their behavioral commitment. Age is positive related to employee's behavioral commitment with an unstandardized coefficient of $.013$ and a t-value of 2.452 . The probability of finding these values is $.014$ therefore we may reject the null hypothesis. The unstandardized coefficient of $.013$ concludes that for one-unit increase in age, behavioral commitment increases $.013$ units.

These results are consistent with my bivariate analysis, which find that age has no relationship with identity commitment but has positive relationship with behavioral

commitment. There does not appear to be a relationship between employee's age and their identity commitment. This result is contrary to some literature. Dodd-McCue and Wright (1996, pp. 1081) study attitudinal commitment of a group of accounting professionals to determine its origins and whether it differs for men and women. They find that age and importance of career were positively linked with women's organizational involvement but not men's. Snape and Chan (2000, pp. 452) also find that employee's organizational commitment is associated with older workers and females after examining the pattern and antecedents of employees' commitment to company and union in a public utility of Hong Kong. In contrast to their findings, I can not find the relationship between age and identity commitment.

The result that age is positively related to behavioral commitment is consistent with above literature.

The null hypothesis is that there is no relationship between employee's education (years) and their identity commitment. Education is found to be not related to identity commitment with an unstandardized coefficient of $-.006$, a t -value of $-.347$ and significance of $.729$. Therefore, we can not reject the null hypothesis.

The null hypothesis is that there is no relationship between employee's education (years) and their behavioral commitment. Education is found to be not related to behavioral commitment with an unstandardized coefficient of $.016$, a t -value of 1.557 and significance of $.120$. Therefore, we can not reject the null hypothesis.

Consistent with my bivariate analysis, education is found to have no relationship with identity commitment. However, contrary to my bivariate analysis, which find positive relationship between education and behavioral commitment, no relationship

between education and behavioral commitment can be found. These findings are contrary to most of the literature. However, although my and Johns' bivariate analysis is contrast. Our multivariate result about education is consistent. Johns (2005, pp. 20) finds that education is positively related to affective commitment, but have no relationship with either effort or continuance commitment in his bivariate analysis, while turning to multivariate analysis, he also find that there is no relationship between education and either affective or effort commitment and it is only found to be negatively related to continuance commitment.

e. Other variables with organizational commitment

The null hypothesis is that there is no relationship between firm's home country (country, recoded into a dummy variable where Japanese=1, U.S. =0) and employee's identity commitment. Country is negative related to employee's identity commitment with an unstandardized coefficient of -.304 a t-value of -3.062. The probability of finding these values is .002 therefore we may reject the null hypothesis. The unstandardized coefficient of -.304 indicates that controlling for all other independent variables in the model, when an organization or unit goes from U.S. to Japanese ownership, there will be a .304 unit decrease in identity commitment.

The null hypothesis is that there is no relationship between firm's home country (country, recoded into a dummy variable where Japanese=1, U.S.=0) and employee's behavioral commitment. Country is negative related to employee's behavioral commitment with an unstandardized coefficient of -.145 and a t-value of -2.328. The probability of finding these values is .020 therefore we may reject the null hypothesis. The unstandardized coefficient of -.145 indicates that controlling for all other

independent variables in the model, when an organization or unit goes from U.S. to Japanese ownership, there will be a .145 unit decrease in behavioral commitment.

These findings are consistent with my bivariate analysis and literature. They are also consistent with Usui et al.'s result that employees of American firms have higher levels of identity and behavioral commitment.

The null hypothesis is that there is no relationship between company (companye, recoded into a dummy variable where electronic company=1, others=0) and employee's identity commitment. Companye is positive related to employee's identity commitment with an unstandardized coefficient of .402 and a t-value of 3.495. The probability of finding these values is .000 therefore we may reject the null hypothesis. The unstandardized coefficient of .402 concludes that controlling for all other independent variables in the model, when an organization or unit goes from other company to electronic company, there will be a .402 unit increase in identity commitment.

The null hypothesis is that there is no relationship between companye (recoded into a dummy variable where electronic company=1, others=0) and employee's their behavioral commitment. Companye is found to be not related to behavioral commitment with an unstandardized coefficient of -.072 a t-value of -1.003 and significance of .316. Therefore, we can not reject the null hypothesis.

3. Correlation of sex as well as country with other independent variables

a. Sex with other independent variables

It is interesting to find that sex variable (sex1, as recoded into a dummy variable, where male=0, female=1) is not significant in both stepwise and enter procedure in the regression result for identity commitment. When turning to behavioral commitment, sex

variable is not significant in stepwise procedure but is significant in enter procedure. To examine how the other independent variables affect sex, I run the correlations of sex variable with other independent variables. There are six variables highly correlated with sex: friends, COOPINDEX, superlife2r, comprhrs, age, and yearsed. Other variables related to sex are: VARIEITYINDEX, SOPINDEX, PARTIINDEX, boss, comprben, and companye.

The correlation of sex and number of personal friends in the organization is $-.256$ with a 2-tail probability of $.000$. Male employees have more personal friends than female employees in the organization. The correlation of sex and cooperation within the organization is $-.109$ with a 2-tail probability of $.001$. Male employees have higher levels of cooperation than female employees. The correlation of sex and employee's personal relationships with supervisors (superlife2r) is $-.198$ with a 2-tail probability of $.000$. Male employees are more likely to report confiding issues of their personal life with their supervisors. The correlation of sex and comparative working hours (comprpay) is $.102$ with a 2-tail probability of $.002$. Female employees have more working hours per week than male employees. The correlation of sex and age is $-.123$ with a 2-tail probability of $.000$. Male employees are older than female employees. The correlation of sex and years of formal education (yearsed) is $.137$ with a 2-tail probability of $.000$. Female employees have higher education than female employees.

The correlation of sex and job variety (VARIEITYINDEX) is $-.071$ with a 2-tail probability of $.030$. Male employees have higher degree of job variety than female employees. The correlation of sex and standard operation procedures (SOPINDEX) is $-.078$ with a 2-tail probability of $.017$. Male employees perceive higher levels of standard

operation procedures than female employees. The correlation of sex and decision making participation (PARTIINDEX) is $-.065$ with a 2-tail probability of $.047$. Male employees have higher levels of participation. The correlation of sex and job hierarchal position (boss) is $-.074$ with a 2-tail probability of $.025$. There are more males in manager and supervisor position. The correlation of sex and comparative benefits (comprben) is $-.077$ with a 2-tail probability of $.021$. Male employees perceive more benefits compare to other workers in the similar job than female employees. The correlation of sex and electronic company (companye) is $.082$ with a 2-tail probability of $.014$. There are more female employees in electronic companies than male employees (see results for profiles of male and female employees).

b. Country with other independent variables

It is interesting to find that country variable (as recoded into a dummy variable, where U.S. =0, Japanese=1) is significant in both stepwise and enter procedure in the regression result for identity commitment. When turning to behavioral commitment, country variable is only significant in enter procedure but not in stepwise procedure. To examine how the other independent variables affect country, I run the correlations of country variable with other independent variables. There are six variables highly correlated with country variable: *comsop3*, *PARTIINDEX*, *AUTONINDEX*, *commngstick*, *friends* and *age*. Other variables related to country are *VARITTYINDEX*, *JOBFLEXINDEX*, *SOPINDEX*, *comprpay*, *comprhrs*, and *years*.

The correlation of country and formalization (*comsop3*) is $.142$ with a 2-tail probability of $.000$. Japanese firms have higher degree of formality than U.S. firms. The correlation of country and employee's decision making participation (*PARTIINDEX*) is -

.160 with a 2-tail probability of .000. U.S. firms have higher degree of decision making participation than Japanese firms. The correlation of country and employee's job autonomy (AUTONINDEX) is -.180 with a 2-tail probability of .000. U.S. firms have higher degree of job autonomy than Japanese firms. The correlation of country and management aloofness (commngstick) is .142 with a 2-tail probability of .000. Japanese firms have higher degree of management aloofness than U.S. firms. The correlation of country and employee's number of personal friends in organization is .139 with a 2-tail probability of .000. Employees in Japanese firms have more personal friends than those in U.S. firms. The correlation of country and employee's age is -.144 with a 2-tail probability of .000. Employees in U.S. firms are older than those in Japanese firms. The correlation of country and job variety (VARIEITYINDEX) is -.124 with a 2-tail probability of .000. U.S. firms have higher job variety than Japanese firms. The correlation of country and job flexibility (JOBFLEXINDEX) is -.073 with a 2-tail probability of .027. U.S. firms have higher levels of job flexibility than Japanese firms. The correlation of country and comparative pay (comprpay) is -.112 with a 2-tail probability of .001. Employees in U.S. firms have higher pay than Japanese counterparts. The correlation of country and comparative working hours (comprhrs) is -.104 with a 2-tail probability of .002. Employees in U.S. firms have longer working hours per week than employees in Japanese firms. The correlation of country and education (yearsed) is -.117 with a 2-tail probability of .000. Employees in U.S. firms have higher education than those in Japanese firms.

Overall, both bivariate and multivariate general model analysis support the idea that employees in U.S firms have higher identity and behavioral commitment than

employees in Japanese firms. This is consistent with literature. Bivariate analysis shows that employees in U.S. firms have more job variety, job flexibility, decision-making participation, higher levels of autonomy, longer working hours per week and higher pay compared to others doing the same job, higher education, and older than Japanese counterparts. Meanwhile, Japanese counterparts have higher levels of formalization, follow higher degree of standard operation procedures, perceive more management aloofness, and more personal friends in organization.

4. Multivariate analysis for gender separate models

To examine the gender differences on determining the relationship with two dimension of organizational commitment. I run the regression with the same model separately for both males and females. The results turn out in table 4 and table5.

a. Males model

The regressions between males' identity commitment and the independent variables had a multiple r-square of .298. Those variables found to be significant are comprpay, SATIINDEX, superlife2r, friends, country, and companye.

The regressions between males' behavioral commitment and the independent variables had a multiple r-square of .191. Those variables found to be significant are COOPINDEX, superlife2r, friends, age, and electronic companye.

b. Females model

The regressions between females' identity commitment and the independent variables had a multiple r-square of .395. Those variables found to be significant are JOBFLEXINDEX, RulesNec, SOPINDEX, AUTONINDEX, COOPINDEX, SATIINDEX, mngstickcom, superlife2r, friends, and companye.

The regressions between females' behavioral commitment and the independent variables had a multiple r-square of .194. Those variables found to be significant are COOPINDEX, comprhrs, SATIINDEX, and superlife2r.

VII. Results

Overall, male employees show more cooperation, better personal relationships with supervisors, more friends in their organizations, and are older than female employees. There are more males than females in manager and supervisor positions, and these males have greater job variety, perceive standard operation procedures to have more importance, have higher levels of decision making participation, and more benefits compared to other workers in similar jobs. On the other hand, there are more females in the electronic companies (female employees is 60% of all employees in the electronic companies in the sample). Female employees work more hours, have better education and significantly higher behavioral commitment than male employees. Although in both bivariate and general multivariate analysis, females are found to have lower identity commitment than males, this relationship is not significant in a general model.

The results suggest that cooperation, job satisfaction and the personal relationships with supervisor have positive relationship with organizational commitment. In bivariate and multivariate analysis, these three variables are positively related to both identity and behavioral commitment. These results are consistent with literature. Lincoln and Kalleberg (1985, pp. 739) highlight group decision-making and teamwork as one of the features of corporatist organizations, which represents an evolutionary advance over the market individualism. Developing strong bonds with coworkers, encouraging

employees' cooperation in work tasks are thought to elicit higher commitment (Lincoln and McBride 1987, pp. 304). The results support this claim. Johns' thesis (2005, pp. 40) concludes that job satisfaction is significant for all three measures of commitment for both the bivariate correlations and the regression analyses. My result coincides with this conclusion. Job satisfaction is a positive predictor of company commitment (Snape and Chan 2000, pp. 452). Supervisor support is associated with lower levels of work-family conflict and turnover intentions (Batt and Valcour 2003, pp. 211). I assume that in personal life, an equalized relationship would promote organizational commitment, and the result confirms my hypothesis. Moreover, these variables are found in separate models to have no gender differences on their influence on organizational commitment. The variable measuring personal relationships with supervisor is the strongest indicator of both identity commitment and behavioral commitment for males and females. Job satisfaction has a strong positive relationship with identity commitment for both males and females. Cooperation in the organization has a strong positive relationship with behavioral commitment for both males and females.

What is surprising is that job variety, availability of resources, formalization, participation, job hierarchical position, comparative benefits, number of contacts in the organization and education are not found to have significant impacts on identity commitment and behavioral commitment for both males and females. Job flexibility is not found to have an influence on behavioral commitment for both males and females. These findings are unusual because the literature indicates they are positively related to organizational commitment.

The separate multivariate analysis for both males and females indicate that there are gender differences on determination of organizational commitment in Thailand. Perceptions of rules and regulations in the organization, standard operation procedures, autonomy, and management aloofness have been found to be related to identity commitment in both bivariate and multivariate general regression. However, in separate models, they are only related to females' identity commitment but not males'. Job flexibility is not found to be related to either identity commitment or behavioral commitment in both bivariate and multivariate general models. However, in females' multivariate analysis, it is found to be related to females' identity commitment. In bivariate analysis, comparative pay is found to be correlated with identity commitment and behavioral commitment, and comparative working hours are found to be correlated with behavioral commitment. They are not found to be related to both identity commitment and behavioral commitment in the general regression model. However, in separate models, comparative pay has a positive relationship with males' identity commitment, and comparative working hours have a positive relationship with females' behavioral commitment. In bivariate and general regression models, age is found to be positively related to behavioral commitment, while in separate models, this relationship only appears for males, not for females. In bivariate and general multivariate analyses, friends are found to be positively related to identity commitment, but negatively related to behavioral commitment, while in separate models, this two-side relationship only holds for males but not for females.

Moreover, both bivariate and general multivariate analysis support that employees in U.S firms have higher identity commitment and behavioral commitment than

employees in Japanese firms. This is consistent with the literature. Bivariate analysis shows that employees in U.S. firms have more job variety, job flexibility, decision-making participation, higher levels of autonomy, longer working hours and higher pay compared to others doing the same job, higher education, and older than Japanese counterparts. Meanwhile, Japanese counterparts have higher levels of formalization, follow higher degree of standard operation procedures, perceive more management aloofness, and more personal friends in organization. These results suggest that manager's strategies and workplace design of U.S. firms contributing to greater organizational commitment and are consistent with the literature. However, in separate regression models, this country difference only exists for males' identity commitment. Males in U.S. firms have higher identity commitment than males in Japanese firms. No other difference can be found.

There are consistent findings in bivariate and multivariate analyses about the relationship of electronic companies with identity commitment and behavioral commitment. Both males and females in electronic companies have higher identity commitment than those in other companies. However, only males are found to have lower behavioral commitment in electronic companies than males in other companies.

VIII. Implications and Conclusions

The findings that cooperation, job satisfaction, and personal relationships with supervisor are positively related to two dimensions of organizational commitment in the general model indicate that variables representing interpersonal relationships are the strongest indicator of organizational commitment in Thailand. In Thai society, where

status hierarchy is well-defined, smooth social relationships display great importance. Showing respect to authority figures, avoidance of confrontation and injury to anyone's honor or a loss of face are highly emphasized (Slagter and Kerbo 2000, pp. 4). My separate multivariate analyses suggest that variables measuring personal relationships with supervisor are the only common indicators that contribute to identity commitment and behavioral commitment for both males and females. For both males and females, cooperation is found to be positively related to behavioral commitment, and job satisfaction is found to be positively related to identity commitment. These findings also suggest that the group of personal characteristic variables explain less of the variation in organizational commitment than the other groups of variables.

In addition to these common indicators, there are different contributors to organizational commitment for males and females. The group of job related (e.g. JOBFLEXINDEX) and structural characteristic (e.g. RulesNec, SOPINDEX, AUTONINDEX) variables approve to explain more of the variation in females' identity commitment. Those females that have higher levels of job flexibility, perceive more rules and regulations in the organization, follow higher degree of standard operation procedures, and have higher levels of autonomy are associated with higher identity commitment. By contrast, some work experience variables (e.g. comprpay, friends) have strong effects on males' identity commitment. Males that have higher pay compared to other workers in similar jobs and have more friends in the organization are associated with higher identity commitment. With regarding to behavioral commitment, some of the work experience (e.g. friends) and personal characteristic variables (e.g. age) have significant relationships with males' behavioral commitment. However, with the

exception of personal relationships with supervisor, cooperation and job satisfaction, only one work experience variable (comprhrs) highly contributes to females' behavioral commitment. Those females who work longer hours compared to other workers in the similar job appear to have higher behavioral commitment. These findings indicate that with the exception of three common indicators, job-related and structural-related variables determine females' identity commitment while work experience variables contribute to males' identity and behavioral commitment as well as females' behavioral commitment. It is worth noting that the roles of work experience variables play in affecting organizational commitment.

It is now generally recognized that a new international division of labour is taking shape in which low-skill, low-paying jobs are being relocated to the developing countries to be performed predominantly by women while high-skill, high-paying jobs continue to remain in the developed countries where they are performed predominantly by men (Porpora et al 1989, pp. 269). Overall, female participation in the labor force in Thailand is 70% percent, among the highest in the world (Slagter and Kerbo 2000, pp. 4). According to Porpora et al. (1989, pp. 269) the relocation of jobs is particularly noticeable in the electronics and textile industries in Thailand. In our sample, females represent 60% in the electronic companies. The important roles of women in international division of labor—in this case Thai women employed by U.S. and Japanese firms—highlight the importance of eliciting organizational commitment among females as well as males in management practice.

In traditional Thailand society, females have low status, however, nowadays the opportunities for Thai women in the economy and professions are comparatively good

(Slagter and Kerbo 2000, pp. 73). Thai women hold a more privileged position in the family of origin than do sons. Thai daughters live with their parents after their marriage, and will inherit family land eventually. As a result, they work primarily to help support their families and remit substantial portions of their wages back home. It is in the daughters that the parents' long term interests reside. Due to governmental industrialization policies, the economies of rural Thailand have deteriorated. Many women so employed are migrants from rural areas. They do not typically subsidize the education of sons, who in Thailand are the ones who will ultimately belong and contribute to a different family unit (Porpora et al 1989, pp. 269). Although female Thai workers do remit more of their wages to their families than male workers, and they also have more of an economic interest in their families of origin than do Thai men, they make this decision on their own, often against the wishes of their parents (Porpora et al. 1989, pp. 290-291). In our sample, the young Thai women's higher education, longer working time and higher behavioral commitment than males reflect their strong sense of self and family.

Moreover, females in this study that are more educated, working longer hours, are younger, and they have higher behavioral commitment than males, report significantly less cooperation, worse personal relationships with supervisors, and fewer friends than males. The results indicate that interpersonal relationships have strong influences on employees' attitude towards work and organization in Thai society. It is possible that a strong sense of family responsibility evokes Thai women's greater working effort, while the weaknesses of interpersonal relationships impede their identity commitment, although it is found to have no significant difference with males'.

Lincoln and Kalleberg (1990, pp. 153) in their 1990's findings report that in both U.S. and Japanese firms in their home country, women are more likely than men to value working in groups, which gives present employees the edge in competing for job openings, and on getting along with superiors rather than coworkers. They point out that this result may reflect the more dependent posture of women in the organization. In contrast to U.S. and Japanese females in their home country, Thai women in U.S. and Japanese firms in Thailand report significantly less cooperation, worse personal relationships with supervisors, fewer friends than males. The reason for this is that Thai men, unlike women, go out drinking a lot and management will often invite some of them to go drinking with them. Furthermore, men in general interact more with each other after hours than women, discussing politics and union activities. In contrast, the women are more likely to spend their leisure time alone, resting, washing clothes or knitting. More women than men said that they do not interact much with other workers after hours (Porpora et al. 1989, pp. 287).

In general, policy reform should focus on reducing management aloofness, cultivating smooth employee-management relationships, and encouraging teamwork and cooperation in the workplace. In order to elicit females' identity and behavioral commitment, management policy should place emphasis promoting standard operation procedures, cooperation and personal relationships with supervisors, improving their job satisfaction as well as strengthening their perception of rules and regulations to have importance, raising the levels of job flexibility and autonomy. On the other hand, raising male employees pay could be an efficient measure to promote their identity commitment. Since age is found to have a positive relationship with males' behavioral commitment,

managers might want to hire older male workers in their workplaces. In addition, future policy should focus on how to balance the two side effects of friendship to males' organizational commitment and try to find a way to maintain positive effects of friendships on males' identity commitment but avoid its negative influences on males' behavioral commitment.

In addition, we need to fix two problems. First, through both bivariate and multivariate general analysis, we conclude that employees in U.S. firms have higher identity and behavioral commitment than those in Japanese firms. Although in separate models, this relationship is found only for males' identity commitment (males in U.S. firms have higher identity commitment than males in Japanese firms). Management policy should promote organizational commitment in Japanese firms. Bivariate analysis shows that employees in U.S. firms have more job variety, job flexibility, decision-making participation, higher levels of autonomy, longer working hours, higher pay compared to others doing the same job, higher education, and are older than Japanese counterparts. Meanwhile, Japanese counterparts have higher levels of formalization, follow higher degrees of standard operation procedures, perceive more management aloofness, and have more personal friends in organization. These results suggest that manager's strategies and workplace design of U.S. firms contribute to greater organizational commitment and is consistent with the literature (Usui et al. 2005, pp. 10). This result may provide some clue to how to improve organizational commitment in Japanese firms. Second, in general, employees in electronic companies have higher identity commitment than employees in other companies, but their behavioral commitment is found to have no difference with employees in other companies. The

analyses of separate regression models indicate that males in electronic companies have lower behavioral commitment than male in other companies, but there is no difference of females' behavioral commitment whether they are in electronic companies or in other companies. We need to address two issues. First, why employees in electronic companies have not the coherent behavioral commitment with identity commitment they have. Second, why males in electronic companies have lower behavioral commitment while having higher identity commitment than males in other companies need to be addressed and find measures to improve their behavioral commitment in the future.

This study has some limitations. First and most important, it is constrained by limited variables. As mentioned in the literature review, many gender related variables are found to affect organizational commitment and have interactions with both males and females. Due to unavailability of these data, this study is limited by available data. This may weaken the capability of independent variables to explain the variance of two dimensions of organizational commitment and lead to some differences that displayed between the results of general and separate models. Second, the culture of Thailand shapes unique social and economic roles for Thai men and women, respectively. Although most developing countries in Asia share similar culture, Thailand has specific culture characteristics. The applicability of the regression model is unclear because it was a in a western culture and not based on measures of employee's organizational commitment in developing countries. What is applicable in U.S. and Japan may not be as relevant in developing counties of Asia. Furthermore, the findings about Thailand could not be generalized to all the developing countries in Asia.

The conclusions of this study raise a number of questions that suggest further research. Further research needs to obtain other gender related variables and try to construct a gender model of organizational commitment in Thailand, or in other cross-cultural workplaces in developing countries in Asia. It is expected that different findings between the general and separate regressions for males and females in this study could have some reasonable explanations by these means.

Table 1. Descriptive Statistics

Dependent Variables	Mean	Minimum	Maximum	Standard Deviation	Number of Valid Cases
Identity Commitment	6.8582	2.00	10.00	1.55374	959
Behavior Commitment	3.9541	1.00	5.00	.87531	959

Independent Variables	Mean	Minimum	Maximum	Standard Deviation	Number of Valid Cases
Job-related					
VARIETYINDEX	6.8784	3.00	15.00	2.90721	946
AVAILRESINDEX	6.1751	2.00	10.00	1.82293	931
JOBFLEXINDEX	9.3524	3.00	15.00	2.63856	928
Structural characteristics					
RulesNec	3.9393	1.00	5.00	.93068	923
SOPINDEX	6.2322	2.00	10.00	2.14697	943
comsop3	3.7325	1.00	5.00	1.25605	942
PARTINDEX	12.7651	4.00	20.00	3.68394	941
AUTONINDEX	8.1996	3.00	15.00	2.77983	912
COOPINDEX	7.9109	3.00	10.00	1.49380	920
boss(0=other, 1=manager and supervisor)	.3012	.00	1.00	.45903	913
Work experience					
comrpay	1.69	1	3	.654	912
comrben	1.79	1	3	.693	907
comrhrs	2.20	1	3	.530	913
SATIINDEX	19.8546	5.00	25.00	2.86771	887
commngstick	3.1649	1.00	5.00	1.38406	946
superlife2r	2.3208	1.00	5.00	1.12496	929
CONTACTINDEX	22.6318	12.00	30.00	3.30514	956
friends	2.59	1	5	1.105	930
Personal characteristics					
sex1(0=m, 1=f)	.5244	.00	1.00	.49667	944
age	28.53	16	57	6.603	921
yearscom	5.0042	.08	35	5.22563	922
yearsced	13.67	0	28	3.162	923
Other					
country(0=U.S,1=Jap)	.5725	.00	1.00	.49498	959
companye(0=other, 1=electric company)	.2282	.00	1.00	.41992	907

Table 2.
Correlations of Dependent and Independent Variables

	Identity Commitment	Behavioral Commitment	N
Job-related			
VARIETYINDEX	.153**	.012	946
AVAILRESINDEX	.091**	.025	931
JOBFLEXINDEX	.018	.045	928
Structural characteristics			
RulesNec rules®s are necessary	.177**	.105**	923
SOPINDEX	.153**	.032	943
comsop3 formalization	.063	.100**	942
PARTINDEX	.058	.049	941
AUTONINDEX	.200**	.088**	912
COOPINDEX	.208**	.236**	920
boss 0=other,1=manager and supervisor	.048	.159**	913
Work experience			
comprpay compare pay	.207**	.101**	912
comprben compare benefits	.199**	.106**	907
comprhrs HOURS/WEEK COMPARED TO OTHER WORKERS	.039	.080*	913
SATINDEX	.429**	.187**	887
commngstick mngstickcom revised	-.209**	-.074*	946
superlife2r	.280**	.147**	929
CONTACTINDEX	.013	.001	956
friends PERSONAL FRIENDS IN ORGANIZATION	.139**	-.111**	930
Personal characteristics			
sex1 sex, 0=m,1=f	-.122**	.040	944
age age in years	-.024	.153**	921
Yearscom tenure	-.020	.065*	922
yearseds Rs years of formal education	-.044	.140**	923
Other			
country country, 0=US, 1=Jap	-.125**	-.113**	959
compane electronic company	.115**	-.069*	907

*<.05 probability

**<.001 probability

Table 3.
Unstandardized Regression Coefficients for IdC and BeC

	Identity Commitment	Behavioral Commitment
Job-related		
VARIETYINDEX	.034*	-.015
AVAILRESINDEX	.003	-.003
JOBFLEXINDEX	.039	.000
Structural characteristics		
RulesNec rules®s are necessary	.125*	.047
SOPINDEX	.076*	.008
comsop3 formalizaiton	.020	.036
PARTINDEX	.008	.001
AUTONINDEX	.043*	.013
COOPINDEX	.157**	.119**
boss (0=other, 1=manage and supervisor)	.164	.129
Work experience		
comprpay compare pay	.081	.053
comprben compare benefits	.104	.053
comprhrs HOURS/WEEK COMPARED TO OTHER WORKERS	.076	.076
SATINDEX	.156**	.038**
commngstick mngstickcom revised	-.101*	.012
superlife2r	.203**	.105**
CONTACTINDEX	-.003	-.005
friends PERSONAL FRIENDS IN ORGANIZATIOON	.155**	-.083*
Personal characteristics		
sex1 sex, 0=m,1=f	-.081	.132*
age age in years	-.008	.013*
yearseds Rs years of formal education	-.006	.016
Other		
country country, 0=US, 1=Jap	-.304*	-.145*
companye electronic company	.402**	-.072
R ²	.337	.175

*<.05 probability

**<.001 probability

Table 4.
Unstandardized Regression Coefficients of Male and Female for IdC

	Male	Female
Job-related		
VARIETYINDEX	.043	.024
AVAILRESINDEX	.013	-.001
JOBINDEX	.033	.060*
Structural characteristics		
RulesNec rules®s are necessary	.118	.185*
SOPINDEX	.042	.126**
comsop3 formalizaiton	.066	-.017
PARTINDEX	-.003	.027
AUTONINDEX	.018	.074*
COOPINDEX	.081	.226**
boss (0=other, 1=manage and supervisor)	.137	.127
Work experience		
comprpay compare pay	.257*	-.031
comprben compare benefits	.062	.143
comprhrs HOURS/WEEK COMPARED TO OTHER WORKERS	.044	.176
SATINDEX	.122**	.206**
commngstick mngstickcom revised	-.072	-.132*
superlife2r	.180*	.217**
CONTACTINDEX	-.003	-.004
friends PERSONAL FRIENDS IN ORGANIZATION	.167*	.135
Personal characteristics		
age age in years	.001	-.013
years of formal education	.020	-.024
Other		
country country, 0=US, 1=Jap	-.435*	-.051
company electronic company	.391*	.374*
R ²	.298	.395

*<.05 probability

**<.001 probability

Table 5.
Unstandardized Regression Coefficients of Male and Female for BeC

	Male	Female
Job-related		
VARIETYINDEX	-.024	-.011
AVAILRESINDEX	-.011	.001
JOBINDEX	-.011	.012
Structural characteristics		
RulesNec rules®s are necessary	.023	.065
SOPINDEX	-.005	.030
comsop3 formalizaiton	.030	.043
PARTINDEX	-.008	.013
AUTONINDEX	.019	.013
COOPINDEX	.126**	.107**
boss (0=other, 1=manage and supervisor)	.134	.100
Work experience		
comprpay compare pay	.042	.056
comprben compare benefits	.071	.070
comprhrs HOURS/WEEK COMPARED TO OTHER WORKERS	-.011	.181*
SATINDEX	.027	.053**
commngstick mngstickcom revised	.020	.002
superlife2r	.142**	.073*
CONTACTINDEX	.000	-.011
friends PERSONAL FRIENDS IN ORGANIZATIOON	-.092*	-.084
Personal characteristics		
age age in years	.017*	.007
yearseds Rs years of formal education	.029	.012
Other		
country country, 0=US, 1=Jap	.180	-.028
companye electronic company	-.244*	.005
R ²	.191	.194

*<.05 probability

**<.001 probability

Appendix A²

Dependent Variables:

(IdC)Identity Commitment Index:

(Alpha=.46)³

(pridecomR)1. “I feel pride in the company” (scored 1-5) (strongly disagree=1, disagree=2, undecided=3, agree=4, strongly agree=5)

(valuecomR)2. “Mine and the company’s values are similar” (scored 1-5) (strongly disagree=1, disagree=2, undecided=3, agree=4, strongly agree=5)

(BeC)Behavioral Commitment

(helpcoR)“I am willing to work harder for the company to succeed” (scored 1-5)

² These scales measure employee’s perceptions of the workplace, according to the degree of expected influence (from small to large) on work commitment, rather than the more currently usual measurement of the formal structure of the firm. In Appendix A and Appendix B, some of the original variables are recoded in order to keep consistent.

³ The coefficient Alpha statistic is used to estimate the reliability of data under conditions when there are two or more comparable scores for one respondent. It is a measure of squared correlation between observed scores and true scores. Put another way, it is measured in terms of the ratio of true score variance to observed score variance. If there is no true score but only error in the items, coefficient alpha will be equal to zero. If all items are perfectly reliable and measure the same thing (true score), then coefficient alpha is equal to 1. A reliable test should minimize the measurement error so that the error is not highly correlated with the true score. Cronbach Alpha examines this relationship. The inference here is that if two sets of scores are consistent there likely is little measurement error and so the scores are likely to be accurate reflections of true scores and so the observed scores are considered reliable.(James Dean Brown 2002, JALT Testing & Evaluation SIG Newsletter, pp. 17)

Appendix B

Independent Variables:

Job-Related Variables

(VARIETYINDEX) Job variety Index:

(Alpha=.647)

1. (comnew) “Something new and different every day” (scored 1-5)
2. (comjobsdif) “Most jobs have something different every day” (scored 1-5)
3. (comdaysame1) “No two days the same on the job” (scored 1-5)

(AVAILRESINDEX) Available Resources Index:

(Alpha=.634)

1. (info1com) “Have problems getting needed information” (reflected 1-5)
2. (resourc1com) “Have problems finding needed resources” (reflected 1-5)

***(JOBFLEXINDEX)** Job flexibility Index

(Alpha.393)

1. (rules1) “The employees are constantly being checked upon for rules violations” (scored 1-5).
2. (orderscom) “employees are expected to follow orders without questioning them” (scored 1-5)
3. (Rules2com) People are to be treated within the rules, no matter how serious a problem they have (scored 1-5).

Structure-related Variables

(RulesNec) “For the company, rules and regulations are absolutely necessary” (scored 1-5)

(SOPINDEX) Reliance on Standard Operating Procedures:

(Alpha.550)

1. (sop1comref) “Standard procedures to be followed in all situations” (scored 1-5)
2. (comsop2) “Must follow strict procedures at all times” (scored 1-5)

(comsop3) “Organization has a manual of rules and regulations to be followed” (scored 1-5)

(PARTIINDEX) Decision Making Participation Index:

(Alpha.643)

1. (chebosscom) “Have to check with the boss before I do anything” (reflected 1-5)
2. (bossaprvc) “Decision has to have boss approval” (reflected 1-5)
3. (higherupcom) “Even small matters referred to higher ups” (reflected 1-5)
4. (executivcom) “Only executives can decide how job is done” (reflected 1-5)

***(AUTONINDEX)** Autonomy Index

(Alpha.489)

1. (judgrev) “Employee is often left to their own judgment as to how to handle most problems”. (scored 1-5)
2. (judgeown) “Most of us are encouraged to use our own judgment on handling everyday situations”. (scored 1-5)
3. (thirdrules) “People here make their own rules on the job” (scored 1-5)

***(COOPINDEX)** Cooperation index

(Alpha.405)

1. (workerco) “My coworkers assistance is indispensable in my doing a good job” (scored 1-5)
2. (workcloseRef) “I must work closely with others to do the job well” (1-5)

(boss) Job position

(scored 1=managers and supervisors, 0 =clerks, secretaries, office staff, customer service, and assembly line positions)

Work Experience Variables

(comprpay) Comparative Pay (scored 3=higher, 2=about the same, 1=less)

“How would you rate your pay compared to others in similar jobs?”

(comprben) Comparative Benefits (scored 3=higher, 2=about the same, 1=less)

“How would you rate your benefits compared to others in similar jobs?”

***(comprhrs)** Comparative Working Hours

“Compared to other workers in Thailand, do you feel your average hours worked each week are: less=1, about the same=2, more=3.

(SATIINDEX) Satisfaction Index:

(Alpha.682)

(questions were scored: very satisfied=5, somewhat satisfied=4, undecided=3, somewhat dissatisfied=2, very dissatisfied=1)

1. (firstsatisfy) “How satisfied are you with superiors?”
2. (secondsatisfy) “How satisfied are you with fellow workers?”
3. (thirdsatisfy) “How satisfied are you with tasks?”
4. (fifthsatisfy) “How satisfied are you with organization?”
5. (sixthsatisfy) “How satisfied are you with individual’s job?”

(commngstick) Management aloofness

“Management sticks to themselves” (scored 1-5)

(superlife2r) “My supervisor is someone I confide in about my personal life” (scored 1-5)

(CONTACTINDEX) Number of Contacts Index:

(questions were scored: many=4, some=3, few=2, none=1)

(Alpha.765)

1. (contact1R) “How many informal contacts with Japanese?”

2. (contact2R)“How many informal contacts with Thais?”
3. (contact3R)“How many informal contacts with other groups?”
4. (contact4R)“How many informal contacts with superiors?”
5. (contact5R)“How many informal contacts with people on same level?”
6. (contact6R)“How many informal contacts with subordinates?”

(friends)“Among your personal friends, how many work in this organization?”
(scored1-5)

Personal Characteristics

(sex1)Sex (males=0, females=1)

(age)Age (respondent’s age in years)

(yearscom)Tenure (respondent’s number years with this company)

(yearsced)Years of Education (respondent’s years of formal education completed)

Other

Country (U.S.=0, Japan=1)

Bibliography:

Ananvoranich Orawan, 1998. "Employment Practices in Foreign Multinational Electronics Companies in Thailand: A Comparison between Japanese and American Companies." Ph. D dissertation, University of Cambridge.

Chikako Usui, Richard A. Colignon, Harold R. Kerb and Robert Slagter. 2004. "Employee Commitment in U. S. and Japanese Firms in Thailand." 18th Annual Conference of Association of Japanese Business Studies.

Diane Dodd-McCue, and Gail B. Wright. 1996. "Men, Women, and Attitudinal Commitment: The Effects of Workplace Experiences and Socialization." *Human Relations* 49:81065-1091.

Douglas V. Porpora, Mah Hui Lim and Usanee Prommas. 1989. "The Role of Women in the International Division of Labour: The Case of Thailand." *Development and Change* 20: 269-294.

Ed Snape and Andy W. Chan. 2000. "Commitment to Company and Union: Evidence from Hongkong." *Industrial Relations* 39: 3445-459.

Ellen Ernst Kossek and Cynthia Ozeki. 1998. "Work-Family Conflict, Policies, and the Job-Life Satisfaction Relationship: A Review and Directions for Organizational Behavior-Human Resources Research." *Journal of Applied Psychology* 83:2: 139-149.

Fiona Scheibl. 1999. "Self made women, agency and work commitment." *Community, Work & Family* 22: 117-132.

Hazel Rosin and Karen Korabik. 1995. "Organizational Experiences and Propensity to Leave: A Multivariate Investigation of Men and Women Managers." *Journal of Vocational Behavior* 46:1-16.

Heather Davey and Vivian Lalande. 2004. "Gender Differences, Values, and Occupational Choice." The National Consultation on Career Development.

Ilan Talmud and Dafna N. Izraeli. 1999. "The Relationship between Gender and Performance Issues of Concern to Directors: Correlates or Institution?" *Journal of Organizational Behavior* 20: 459-474.

Jean E. Wallace. 2004. "Motherhood and Career Commitment to the Legal Profession." *Research in the Sociology of Work* 14: 219-246.

John Lawler, Vinita Atmiyanada and Mahmood Aaidi. 1992. "Human Resource Management Practices in Multinational and Local Firms in Thailand." *Journal of Southeast Asia Business* 81: 16-40.

Kathleen Fuegen, Monica Biernat and Elizabeth Haines. 2004. "Mother's and Fathers in the Workplace: How Gender and Parental Status Influence Judgments of Job-related Competence." *Journal of Social Issues* 60: 4737-754.

Lincoln, James R and Arne Kalleberg. 1996. "Commitment, Quits, and Work Organization in Japanese and U.S. Plants." *Industrial and Labor Relations Review* 50: 39-59.

Mandy E.G. van der Velde. 2003. "Gender Differences in the Influence of Professional Tenure on Work Attitudes." *Sex Roles: A Journal of Research*.

Marija J. Norusis. 2004. "SPSS 12.0 Guide to Data Analysis." Prentice Hall, Inc. New Jersey.

Newspaper Source. 2004. "Interview/ Thai Carbon Black: Worker-driven focus key to firm's success." Jun 3. *Bangkok Post*.

Newspaper Source. 2001. "Thai Training Programs 'on track'-Report." Aug 27. *Bangkok Post*.

Newspaper Source. 2002. "Thai Firms Urged to Adopt International Labour Standards." May 21. *Bangkok Post*.

Newspaper Source. 2002. "Industry Group to Urge Thai Government to Back Worker-Training Found." Apr. 23. *Bangkok Post*.

Peter Berg, Arne L. Kalleberg and Eileen Appelbaum. 2003. "Balancing Work and Family: The Role of High-commitment Environments." *Industrial Relations* 42: 168-188

Peter v. Marsden, Arne L. Kalleberg, Cynthia R. Cook. 1993. "Gender Differences in Organizational Commitment, Influences of Work Positions and Family Roles." *Work and Occupations* 20: 3368-390.

Rachel Gali Cinamon and Yisrael Rich. 2002. "Gender Differences in the Importance of Work and Family Roles: Implications for Work-Family Conflict." *Sex Roles* 47: 531-541.

Richard Johns. 2004. "Determinants of Organizational Commitment among U.S. Workers." Master Thesis, Center for Social and Public Policy, Duquesne University, Pittsburgh, PA.

Robert slagter and Harold R. Kerbo. 2000. *Modern Thailand: A volume in the Comparative Societies Series*. McGraw-Hill Companies, Inc.

Rosemary Batt and P. Monique Valcour. 2003. "Human Resources Practices as Predictors of Work-Family Outcomes and Employee Turnover." *Industrial Relations* 42: 2189-220.

Stefan Svallfors, Knut Halvorsen and Jorgan Goul Andersen. 2001. "Work Orientations in Scandinavia: Employment Commitment and Organizational Commitment in Denmark, Norway and Sweden." *ACTA Sociologica* 44:139-156.

Stephew Wood. 1996. "How Different Are Human Resource Practices in Japanese 'Transplants' in The United Kindom?" *Industrial Relations* 35:4511-525.

Sunintana Hentasilpa. 2004 "Encourage Thai Workers to Be Advocates for Your Firm, Managers Told." Jun 20. *Bangkok Post*.

Susan C. Eaton. 2003. "If You Can Use Them: Flexibility Policies, Organizational Commitment, and Perceived Performance." *Industrial Relations* 42:2145-167.

Wendy. J. Casper, Jennifer A. Martin, Louis C. Buffardi and Carol J. Erdwins. 2002. "Work-Family Conflict, Perceived Organizational Support, and Organizational Commitment Among Employed Mothers." *Journal of Occupational Health Psychology* 72: 99-108.

Wim J. Nijhof, Margriet J. de Jong, Gijs Beukhof. 1998. "Employee Commitment in Changing Organizations." *Journal of European Industrial Training* 22/6: 243-248.

Yasuhiro Okabe. 2002. "Organizational Commitment in the Restructuring Age: A comparisons of British and Japanese Managers in Manufacturing Industries." Association of Japanese Business Studies Conference Complete Best Papers Proceedings: 129-142.