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DISSERTATION

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„Antecedents and Outcomes of Expatriate Adjustment: A Meta-Analysis and Structural Equation Modeling“

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بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

Dedication

To my parents, my wife, and my lovely daughter for their unconditional love and prayers

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Declaration

The work in this dissertation is based on the research carried out at Chair of International Personnel Management, Center for Business Studies, University of Vienna, Austria. No part of this dissertation has been previously submitted for any other degree or qualification and it is all my own work unless mentioned otherwise.

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Chapter 1
Introduction

1.1 Background and Motivation

Globalization in business is attracting an increasing number of organizations into multinational business activities. The organizations can take advantage of foreign market opportunities and labor resources of foreign countries by extending business overseas. Organizations need to send their employees overseas to run and manage overseas business activities. The challenge posited to expatriate employees by entering into international assignments is multifaceted. They need to cope with the changes in work responsibilities, new culture, language barriers, etc. International assignments can also be a source of disturbance to the family of expatriate either in case family accompanies expatriate at the host location or the expatriate has to live away from the family alone at the host location.

In the context of this research, expatriate employee is defined as an employee who is sent to an overseas location for a job assignment by the organization for a pre-specified and lengthier period of time. For that purpose, the employee needs to relocate and stay at the host location to complete the assignment. The assignment is temporary and an understanding is made that after a specified period of time, the employee will return to home country or will take another overseas assignment. Host country is the country where expatriate is posted for the purpose of overseas assignment and home country is the country of citizenship of the expatriate.

Trying to recognize the factors that predict expatriate success becomes especially important given the high costs of international assignments coupled with high failure rates. It has been estimated that the expatriate managers cost 2 to 3 times more than their domestic counterparts (Black and Gregersen 2000). It is obvious that expatriate failure costs can add up to millions of dollars for companies having hundreds of employees on international assignments. According to some estimates, 16% to 40% of the expatriates fail to complete their assignments and return earlier than the scheduled termination of the assignment (Tung 1981; Black and Mendenhall 1991). This is because they perform poorly and fail to adjust to the host country's

culture. This rate can be as high as 70% to 80% for expatriates assigned to the countries that are culturally very different from their native countries.

The expatriate failure rates can rise steeply if we also take into account those expatriates who finish their overseas assignments but fail to perform up to expectations. Moreover, many expatriates who complete their assignments are only marginally effective (Black and Mendenhall 1990). These high expatriate failure rates, however, pertain to American expatriates mostly; as the failure rates for their counterparts from Europe and Japan are much lower, on average 5% to 15% (Tung 1982). Tung (1982) compared percentages of international assignments terminated prematurely for American, European, and Japanese companies. She found that in US, 75% of all companies have ratios of more than 10% prematurely terminated assignments; whereas the ratio of companies having more than 10% early terminated assignments is only 3% for European and 14% for Japanese companies.

Statistics regarding the expatriate employees who return to their home countries after finishing expatriate assignment are also not encouraging. It has been observed that more than 20 percent of the expatriates returning to their home countries leave their respective organizations within a year of repatriation, thus leaving the parent organization unable to cultivating full return on investment made on the expatriate employees during international assignment (Hechanova, Beehr, and Christiansen 2003). Worse than that, in some cases, competitor firms employ expatriates of their rival firms once they repatriate (Cook 1997). Thus, organizations lose their investment made in human resource to the competitor firms.

The costs of the expatriate failure can be very high for the organization as well as for the expatriate employee. The direct costs associated with expatriate failure are quite obvious. The direct costs are incurred in the shape of higher level of compensation and benefits paid to the expatriates (that are substantially higher than paid to the locally placed employees), relocation and transportation costs, training and development expenditures, etc.

There are also indirect costs of the expatriate failure that can be exponentially higher than the direct costs. Indirect costs of failure pertain to the employee as well as to the organization. On the part of the employee, indirect costs may include negative effects on employee's self-confidence and reputation among the peers. For the organizations, the indirect costs of expatriate failure include employee turnover, poor functioning at the foreign units, adverse effects on business, and potential complications regarding relations with key customers or government

personnel at the host location (Dowling, Welch, and Schuler 1999). It can also affect organization's ability to recruit and retain top class employees (Hechanova et al. 2003). It, therefore, is important for the organizations to recognize the reasons of expatriate failure and learning the ways to overcome them.

1.2 Antecedents of Expatriate Adjustment

There are many factors that facilitate or inhibit the cross-cultural adjustment. These antecedents may come from individual characteristics of the expatriates, organizational support policies, work and non-work life at the host location, etc (cf. Black, Mendenhall, and Oddou 1991). It is important to understand the effects of these predictors on expatriate adjustment. It is possible for the researchers to capture the reasons of expatriate failure by focusing on the antecedents of expatriate adjustment. Many antecedents have been proposed in the literature dealing with expatriate adjustment. The details will follow in the next chapters.

1.3 Cross-Cultural Adjustment

Cross-cultural adjustment may be defined as level of comfort associated with being in a new culture outside the home country (Caligiuri 2000)[1]. Adjustment at the host location is an important step leading towards success of the international assignment, as concluded by Bhaskar-Shrinivas, Harrison, Shaffer, and Luk (2005) 'Research on international assignments highlights psychological or socio-cultural adjustment as the vital construct underlying the rewards and costs of expatriate experiences to individuals, their families, and their firms' (p. 257). Early research has considered cross-cultural adjustment as a unitary construct; while later on, research in 1980s and afterwards suggests that cross-cultural adjustment is composed of three specific facets (Black, Mendenhall, and Oddou 1991):

- General adjustment
- Interaction adjustment
- Work adjustment

[1] See also Black (1988); Gregersen and Black (1990); Bhaskar-Shrinivas et al. (2005)

Black, Mendenhall, and Oddou (1991), in their expatriate adjustment model, also distinguish cross-cultural adjustment construct in three distinct facets of general, interaction, and work adjustment. This tri-faceted segregation of cross-cultural adjustment construct has been operationalized and validated in many empirical studies (e.g. Shaffer, Harrison, and Gilley 1999; Takeuchi, Yun, and Russell 2002).

1.4 Outcomes of the Expatriate Adjustment

Expatriate adjustment, however, is not the sole determinant of the success of an international assignment. In expatriation process, adjustment is preceded by antecedents and is followed by certain consequences or outcomes that are directly related to the expatriate performance and organizational goals. Previously, less effort has been devoted to study the outcomes of adjustment unless in relation to the effects of antecedents on them. Some researchers also have focused attention on analyzing the relationship between expatriate adjustment and outcomes of adjustment; and, to a lesser extent, between outcomes themselves (e.g. Hechanova et al. 2003; and Bhaskar-Shrinivas et al. 2005). Understanding the outcomes of adjustment and the impact of adjustment on outcomes is important to understand expatriate adjustment process fully. It is important because outcomes of adjustment are crucial to the ultimate success of the expatriate assignment. It is not only adjustment itself, but it is also the outcomes of adjustment that ultimately determine the fate of the international assignment. They are also vital from the organization's point of view because maladjustment can result into poor performance and expatriate turnover thus compromising organizational goals.

Hechanova et al. (2003) termed these outcomes as secondary facets of adjustment or distal expatriate adjustment where adjustment itself is considered as a primary and temporal outcome in the expatriate assignment process. Most important outcomes of expatriate adjustment include job satisfaction, intentions to quit, job performance, and organizational commitment.

1.5 Objectives of the Research

In this research, a meta-analysis is presented for the effects of four selected antecedents on expatriate adjustment (general adjustment, interaction adjustment, and work adjustment) and outcomes of expatriate adjustment (job satisfaction, job performance, intentions to quit, and organizational commitment). Through meta-analysis, empirical literature regarding the expatriate adjustment is summarized and impact of the selected antecedents on expatriate adjustment and outcomes is determined accurately. Moreover, the effects of adjustment on outcomes of adjustment are also determined meta-analytically. Then, variation in the effect sizes across studies is assessed and the effects of many moderating variables on the relationships between antecedents, adjustment, and outcomes are examined. Finally, causal links between antecedents, adjustment, and outcomes are theoretically established and are tested through two different structural models (adjustment-outcomes model and antecedents-adjustment-outcomes model).

A meta-analysis is called for because of the inconsistent findings regarding certain antecedents of expatriate adjustment and lack of research on moderator variables. While conducting this research, many empirical expatriate studies were thoroughly examined to observe the level of support for different antecedents of expatriate adjustment. On a whole, almost in more than half of the studies, many antecedents did not get statistical support (see appendix 6 for level of empirical support found in selected research studies regarding different antecedents). Even for the antecedents for which an effect has been established; uncertainty, regarding the magnitude of the relationship as well as the circumstances under which a relationship exists, still persists.

1.5.1 Selection of the antecedent variables for meta-analysis

The four selected antecedent variables are as follows:

- Language
- Cross-cultural training
- Role ambiguity
- Family support & adjustment

1.5.2 Rationale for selecting the included antecedent variables

These four antecedent variables are selected because:

- They are representing different categories of antecedents to expatriate adjustment i.e. individual, work, organizational, non-work categories[2].
- A considerable amount of empirical studies exist dealing with the effects of these antecedents on expatriate adjustment.
- Effects of these variables on expatriate adjustment have Well-established theoretical background. Impact of these variables on expatriate adjustment is supported by theories such as uncertainty and anxiety reduction theory.

1.6 Organization of the Dissertation

The dissertation is organized as follows:

- Chapter two presents review of the relevant literature. Literature dealing with the selected antecedents, expatriate adjustment, and outcomes of adjustment is briefly discussed. The findings of the previous research regarding effects of the antecedents on expatriate adjustment are mentioned as well. Hypotheses regarding effects of the selected antecedents on expatriate adjustment are also formulated.
- In chapter three, the methodology used for the research is described. The process of search and screening of the research studies for inclusion in the meta-analysis is discussed. An overview of the coding of the studies is given. Moreover, psychometric meta-analysis methodology used for this research is described.
- In chapter four, the results of meta-analysis between antecedents and expatriate adjustment are reported. In addition to that, moderator analysis is introduced and the moderators included in this research are discussed briefly. At the end of the chapter, the results regarding the moderator analysis are presented.
- In chapter five, focus is shifted to the relationships between expatriate adjustment and outcomes of the adjustment. In this chapter, brief review of the literature regarding effects of adjustment on outcomes is presented. The relationships between adjustment

[2] For details, see Black et al. (1991)

and outcomes are established in the light of the theoretical background, and relevant hypotheses regarding effects of the adjustment on outcomes are formulated. Later in this chapter, the meta-analysis results for the effects of adjustment on outcomes are reported along with moderator analysis and relevant findings.

- In chapter six, the causal links between antecedents, adjustment, and outcomes are established and are tested through two different structural models. The results of structural equation modeling are reported.
- In chapter seven, discussion of the results is presented. This chapter also includes limitations and suggestions for the future research, practical implications, contributions to the literature, and conclusion.

Chapter 2
Literature Review

2.1 Theoretical Background

Expatriate adjustment process can be explained by multiple theoretical perspectives. There are three relevant theories which try to explain expatriate adjustment process.

- Uncertainty and anxiety reduction theory
- Culture shock theory
- U-curve theory

It is, however, worth mentioning that these theories are not drawn exclusively upon business expatriates, but on sojourners and other classes of people trying to adjusting in a new country. They are, however, also relevant to explaining the adjustment of business expatriates at the new location. A brief review is presented below:

2.1.1 Uncertainty and anxiety reduction theory

Uncertainty reduction theory proposes that individuals attempt to reduce uncertainty about others to get rewards and to forecast the behavior of other individuals (Berger 1979). Gudykunst and Hammer (1988) incorporated the concept of anxiety reduction in uncertainty reduction theory to discuss intercultural adaptation. They argue that sojourners, when enter into foreign culture, are confused how to behave (uncertainty); and they also have anxiety because of a feeling of lack of security. They further argue that reducing uncertainty and anxiety is necessary for intercultural adaptation.

Expatriate assignments are a source of uncertainty and anxiety (Mendenhall and Oddou 1985). Therefore, those factors which decrease an expatriate's uncertainty and anxiety will facilitate expatriate adjustment and those factors which increase uncertainty and anxiety will affect expatriate adjustment negatively.

2.1.2 Culture shock theory

The argument behind culture shock theory is that individuals upon entrance into a new country/culture find that numerous past behaviors are no longer tolerable or suitable in the new culture. As a result, the individuals are exposed to a high level of uncertainty because they don't know yet which behaviors are appropriate in the new cultural setting. This uncertainty results in negative feelings like anxiety and frustration. These negative feelings are termed as 'culture shock'. With regard to culture shock theory; factors that tend to reduce culture shock, by determining suitable behaviors in the new culture, tend to facilitate the adjustment. On the contrary, the factors that tend to increase uncertainty inhibit the adjustment.

2.1.3 U-curve theory

The U-curve theory proposed by Lysgaard (1955) describes four stages of cross-cultural adjustment process:

- Honey moon stage
- Culture shock
- Adjustment stage
- Mastery stage

2.1.3.1 Honey moon stage

The first stage i.e. honey moon stage occurs during very beginning of the international relocation. During honey moon stage, the expatriate is intrigued by the novelty and newness of the host culture.

2.1.3.2 Culture shock

The second stage 'culture shock' begins when the expatriates start to face real problems in the host culture on daily basis. They try to resolve the problems by using similar past home experiences. An expatriate may be unable to detect negative feedback resulting from his/her inappropriate behaviors initially. Honeymoon stage is ended with accumulation of negative feedback incidents. A stage of culture shock follows the honeymoon stage (Black and Mendenhall 1991). The stage of culture shock is marked with frustration and feelings of bitterness towards the host nation and the culture. In this stage, an expatriate needs to cope with

the daily life problems at the host culture. This failure of expatriate to cope with real life situations in the host culture and its recognition may lead to uncertainty about his/her ability to adjust in the foreign environment.

2.1.3.3 Adjustment stage

The next stage after culture shock stage is the adjustment stage, where an expatriate learns to cope with the problems and gets information about appropriate and acceptable behaviors in the host culture settings.

2.1.3.4 Mastery stage

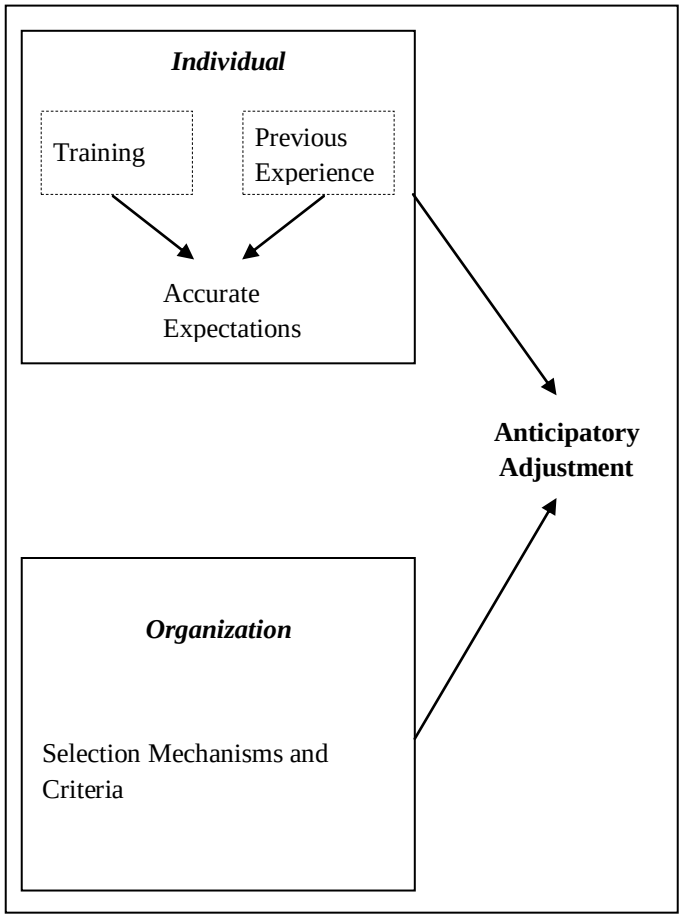
As a result of positive adjustment process, an expatriate feels satisfied and self-confident and thus approaches towards the final stage 'mastery'. This stage is characterized by better adjustment, and ability to perform and function effectively at the host location.

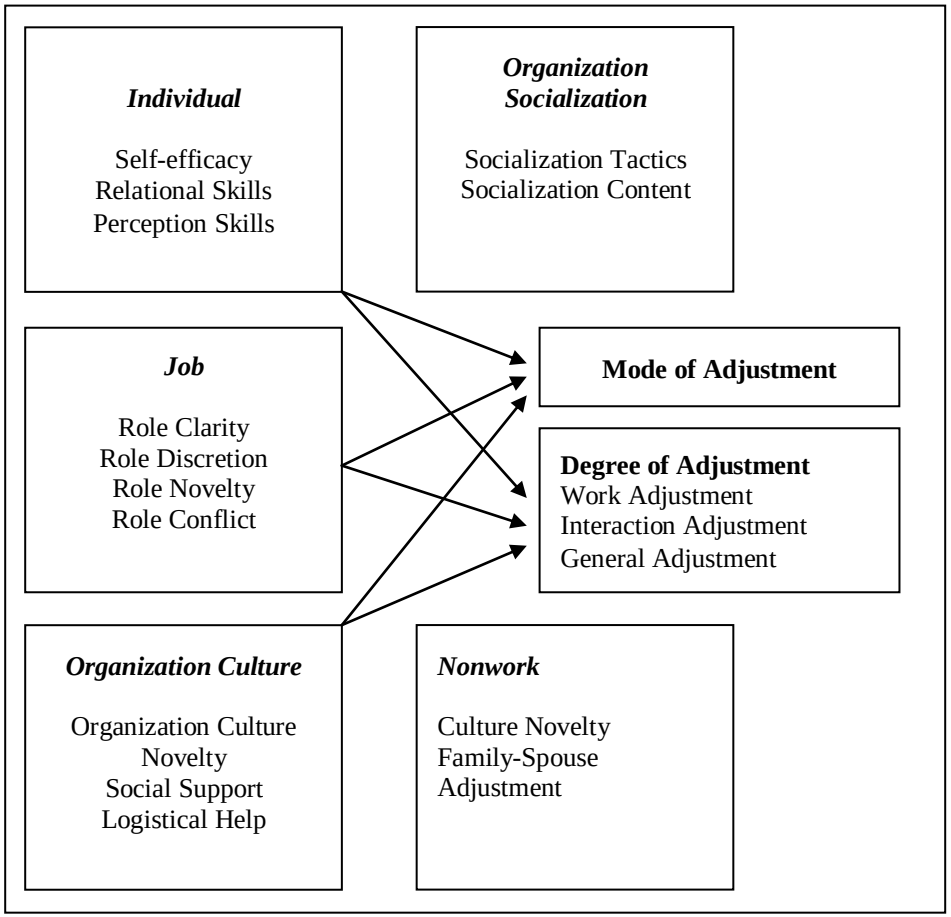
2.2 Integrative Model of Expatriate Adjustment by Black, Mendenhall, and Oddou (1991)

A seminal work regarding theoretical treatment of antecedents of expatriate adjustment is presented by Black, Mendenhall, and Oddou (1991). They propose an integrative model of expatriate adjustment. They integrate theoretical and empirical work from international as well as from the domestic adjustment literature. They present a comprehensive theoretical framework on the basis of this integration that might not have been possible to gather from either of the literature stream alone (Black et al. 1991). This adjustment model gathers a substantial amount of empirical evidence.

Figure 1: Framework of International Adjustment

(Source: Black, Mendenhall, and Oddou 1991, p. 303)





This model proposes five dimensions (or themes) as constituents of the cross-cultural adjustment process:

- Pre-departure training
- Previous overseas experience
- Organizational selection mechanisms
- Individual skills
- Non-work factors

(Black et al. 1991, p. 293)

The first three dimensions pertain to the factors that are anticipatory in nature i.e. before expatriates leave for international assignment and the last two dimensions pertain to the factors that come into play once expatriates actually arrive at the host location. This model proposes a wide range of inputs for expatriate adjustment, which are further divided into different categories. The Black et al. (1991) integrative model of international adjustment is produced in figure 1.

Many of the variables proposed in this model have been tested empirically and have been found significantly affecting expatriate adjustment. Most of the researchers have examined one or more variables from Black et al. (1991) model. No study has examined this model in its totality except Shaffer, Harrison, and Gilley (1999) who examined all the variables except two. This model, however, does not include the outcomes of adjustment.

2.3 Previous Meta-Analyses in the Field of Expatriate Adjustment

In earlier research, meta-analyses have been conducted for different antecedents of the expatriate adjustment (e.g. Deshpande and Viswesvaran 1992; Morris and Robie 2001; Hechanova et al. 2003; Bhaskar-Shrinivas et al. 2005).

In a meta-analysis, Deshpande and Viswesvaran (1992) estimated the effects of cross-cultural training on expatriate job performance as well as on expatriate adjustment. The results showed moderate to strong correlations of cross-cultural training with performance and adjustment (0.39 and 0.43 respectively). They used 21 studies in total in their meta-analysis. However, their meta-analysis is limited in many ways. They included many studies relying on educational cross-cultural training programs involving different ethnic groups and racial

sensitivity training in the United States. Thus, the included samples did not represent business expatriates exclusively (Morris and Robie 2001). Moreover, they did not exercise due care to include only those research studies which are of good scientific quality resulting in overstated conclusions (Kealey and Protheroe 1996). They treated expatriate adjustment as a unitary construct instead of its tri-faceted segregation (general, interaction and work adjustment) that was later validated in many studies.

Later, Morris and Robie (2001) examined the effects of cross-cultural training on expatriate adjustment and job performance. In their meta-analysis, they found much weaker relationships as compared to those found by Deshpande and Viswesvaran (1992). Their results showed correlations of r = 0.13 and r = 0.26 for adjustment and performance respectively. In their meta-analysis, they included 16 studies for adjustment and 25 studies for performance as dependent variable. This study, however, is also not immune from certain limitations. Morris and Robie (2001) included studies examining only the American samples and excluded the studies with non-American samples. Moreover, they could not explore moderators in detail because of non-availability of enough information. They treated expatriate adjustment as a unitary construct.

Hechanova et al. (2003) conducted a meta-analysis including many antecedent variables. Some of the included variables are described in Black et al. (1991) integrative model. They also included many other variables in their meta-analysis and they examined their effects on three distinct facets of expatriate adjustment construct i.e. general adjustment, interaction adjustment, and work adjustment. They used a sample of total 42 studies.

Bhaskar-Shrinivas et al. (2005) also attempted to conduct a meta-analysis of the antecedent variables presented in Black et al. (1991) model. They included many variables proposed in Black et al. (1991) model. They also used three distinct facets of expatriate adjustment and total sample consisted of 66 studies.

2.4 Contributions of the Present Study

This research contributes into the expatriate literature by clarifying inconsistent findings regarding certain antecedents of expatriate adjustment. Furthermore, impact of antecedents and adjustment is assessed on the outcomes of adjustment. Extensive moderator analysis is conducted to identify circumstances under which certain relationships become high or low.

Moreover, causal links between antecedents, adjustment, and outcomes are theorized and tested. Contributions are discussed in detail in the chapter on discussion and conclusion. This research surpasses previous meta-analyses in many ways:

- Sample size used (98 studies) is much larger than previous reviews, keeping in view the number of variables examined.
- In previous meta-analyses, moderators are not dealt with in detail. In this research, extensive moderator analysis is conducted and an effort is made to assess the impact of many moderating variables.
- The impact of antecedents is examined not only on expatriate adjustment but also on outcomes of adjustment.
- Causal links between antecedents, adjustment, and outcomes are established and tested through two different structural models.

2.5 Literature Review Regarding Selected Antecedents

A brief review of the literature regarding four selected antecedents of expatriate adjustment is presented below and relevant hypotheses are formulated.

2.5.1 Language

Language ability is vital for interpersonal communication (Caligiuri 2000); and communication is essential for effective management. According to Penley, Alexander, Jernigan, and Henwood (1991 p.57) 'managing an organization is fundamentally tied to communicating', and therefore language skills are important for effective management. Mintzberg (1973) described that majority of managerial roles are exclusively related to communication.

Host country's language knowledge has been considered as an antecedent to all facets of expatriate adjustment (Mendenhall and Oddou 1985). Lack of fluency in the host country's language is a considerable source of frustration at host location. Neal (1998), in his research on French expatriates in Great Britain, points out language as an important cause of dissatisfaction among them. Expatriates feel themselves as outsiders in the work group because of language barrier.

According to stress management theory, language knowledge brings an increase in control and a reduction in uncertainty thus leading to a positive effect of language knowledge on cross-cultural adjustment (Brett 1980). Expatriates fluent in the host country's language are able to get information from host country nationals about novel situations. Hence, they are able to reduce uncertainty regarding the host culture and location (Kraimer 1999). Language ability helps one to understand communication protocols of host country; and thus helps expatriate in actively interacting with the host country nationals. Language fluency helps to smoothening interpersonal communication leading to better adjustment.

Language knowledge helps in expatriate adjustment because it helps an expatriate to access the required information regarding daily general living and work activities (Nicholson and Imaizumi 1993). It facilitates the expatriate to obtain information about general living conditions, for example, shopping, transportation, directions, etc. Language, thus, tends to affect general and interaction adjustment positively. The same is true for work environment as well. Local language fluency helps an expatriate in communicating with the coworkers and facilitates the expatriate to gaining knowledge of suitable behaviors at the work place. Through fluency in the language of host country, an expatriate may settle as a member of the work group. This makes job environment pleasant thus leading to work adjustment and job satisfaction. Adjustment process may suffer without language knowledge and expatriate may have to rely on spouse or supervisor (if they speak the language) to get the necessary information. Lack of language fluency can affect work adjustment negatively.

Better cross-cultural adjustment resulting from the language knowledge may lead to higher level of satisfaction for the expatriate and reduced intentions to the turnover (Shaffer and Harrison 1998). Fluency in the language of host country equips the expatriates with interpersonal skills and helps them getting required information about different issues. Mendenhall and Oddou (1985) highlight the importance of language knowledge by arguing that language skills are beneficial for adjustment as a source of creating and promoting interpersonal relationships and recognizing the norms of the new culture.

2.5.1.1 Previous research on the effects of language knowledge on expatriate adjustment

Many empirical studies found positive effects of host country's language knowledge on expatriate adjustment using samples from business expatriate population. Previous empirical

research has found significant positive impact of knowledge of the language of host country on general adjustment, interaction adjustment, and work adjustment[3]. On the other hand, there are also many studies which found near zero or negligible impact of language on expatriate adjustment.

Naumann, Widmier, and Jackson Jr. (2000) found a significant correlation of language with job satisfaction but did not find significant correlations with intentions to quit and organizational commitment. Puck, Mohr, and Rygl (2008) tested the impact of language on general adjustment, organizational commitment, and job satisfaction; and found significant correlation only with general adjustment but not with organizational commitment and job satisfaction. Li (1996) did not find a significant correlation of language with expatriate general adjustment and job satisfaction; and Kim and Slocum Jr. (2008) did not find significant correlation with intentions to quit.

Caligiuri, Phillips, Lazarova, Tarique, and Bürgi (2001) could not find significant correlation of language with expatriate general adjustment. Toh (2003), while examining the effects of language on expatriate adjustment, did not find significant correlation of language with work adjustment, job satisfaction, and intentions to quit. Peltokorpi (2008) found significant correlation of language only with interaction adjustment but not with general adjustment, work adjustment, and job satisfaction.

First hypothesis regarding the effects of language knowledge on expatriate adjustment is formulated as follows:

Hypothesis 1: The knowledge of the language of host country has a positive effect on expatriate adjustment.

It is expected that language will affect all the expatriate adjustment indicators positively except intentions to quit. As knowledge of the language helps to communicate with host country nationals at workplace as well as outside the workplace, it facilitates getting rid of the stress and uncertainty arising because of being in a new culture and hence helps to adjust. As intentions to

[3] For the effects of language on general adjustment (see Selmer 2006; Puck, Kittler, and Wright 2008)
For the effects of language on interaction adjustment (see Selmer 2006; Puck, Kittler, and Wright 2008)
For the effects of language on work adjustment (see Selmer 2006; Chi and Chiou 2007; Puck, Kittler, and Wright 2008)

quit is a measure of lack of adjustment, it is expected that it will be negatively affected by language ability i.e. host country's language knowledge will reduce the intentions to quitting the assignment.

2.5.1.2 Cross-domain effects and within-domain effects

Research has shown the evidence that global antecedents show stronger effects on the global aspects of expatriate adjustment and specific antecedents show stronger effects on the specific aspects of expatriate adjustment. Black (1988) noted that although job variables (e.g. role conflict and role ambiguity) demonstrated effects on work adjustment, they were not related to general adjustment. Therefore, it can be expected that job factors will have stronger relationships to work adjustment as compared to general or interaction adjustment. Thus, we can expect the existence of within-domain and cross-domain effects. Within-domain effects show that the antecedents from non-work (work) domain exhibit stronger effects on outcomes from non-work (work) domain. However, antecedents from one category also affect adjustment indicators from a different category; which leads to the cross-domain effects where antecedents from non-work (work) domain exhibit effects also on outcomes from work (non-work) domain, though not strong (Bhaskar-Shrinivas et al. 2005).

Language is a non-work antecedent of expatriate adjustment. Therefore, in the context of within-domain effects, it is expected that it will be correlated strongly with non-work indicators of the expatriate adjustment (i.e. general adjustment, interaction adjustment) as compared to the work-related facets of expatriate adjustment (i.e. work adjustment, job satisfaction).

2.5.2 Cross-cultural training

2.5.2.1 Definition and scope/purposes of cross-cultural training

Cross-cultural training is focused on delivering information and enhancing the skills regarding effective adjustment and performance in the host country's culture (Caligiuri et al. 2001). It is delivered to the expatriates so that they can operate effectively in foreign culture. The objectives of the cross-cultural training are threefold. First, it should give expatriates the knowledge about the suitable cultural behaviors and appropriate work attitudes. The second purpose is to facilitate the expatriates to tackle with the unexpected situations and to minimize the conflict developed

due to novelty of the host culture. Generating pragmatic expectations regarding new assignment and culture should be third purpose of cross-cultural training (Caligiuri et al. 2001).

Previous research generally reveals that only a small number of multinational corporations offer cross-cultural training to their expatriates. This trend, however, is changing and the ratio of the multinational companies offering cross-cultural training to their expatriates is increasing. Organizations give different reasons for not providing cross-cultural training on a massive scale. The most common reason indicates that cross-cultural training is not considered to be productive (Tung 1981; Mendenhall and Oddou 1985). Therefore, management does not feel need for cross-cultural training and does not support it.

Caligiuri et al. (2001) propose cross-cultural training as a factor contributing to the growth for multinational organizations. Black and Mendenhall (1990), in a review, conclude that it emerges as a beneficial tool for expatriate adjustment and performance.

2.5.2.2 Uncertainty reduction and cross-cultural training

International assignments are a source of uncertainty and cross-cultural training enables the expatriates to create anticipatory speculations about how to behave in host culture. If these speculations are correct, training will enable an expatriate to learn appropriate behaviors easily and quickly (Turcotte 1996). Since, cross-cultural training prepares the expatriates for the culture of the host country by providing information about it; it can help to decrease uncertainty and hence, stress (Black and Gregersen 1991a). Thus, expatriates who are provided with cross-cultural training could be less vulnerable to negative consequences of inappropriate behaviors at the host location, while expatriates sent out without training might face them (Black and Mendenhall 1990). It provides the information that is useful for reducing the uncertainty regarding the future international assignment. Cross-cultural training can be either company-sponsored or self-initiated.

2.5.2.3 Cross-cultural training methods and techniques

Many types of techniques for cross-cultural training are described by researchers. Downs (1969) characterized four approaches to cross-cultural training: intellectual model, culture awareness, self-awareness, and area simulation. Later Brislin, Landis, and Brandt (1983) developed a comprehensive scheme, which describes six basic approaches as follows:

- Information or fact-oriented training
- Attribution training
- Awareness-sensitivity training
  - Cultural awareness
  - Self-awareness
- Cognitive-behavior modification
- Experiential learning – area training
- The interaction approach

2.5.2.4 Previous research on the effects of cross-cultural training on expatriate adjustment

Some empirical studies have found cross-cultural training (CCT) positively affecting expatriate adjustment in the host country. However, the evidence of this positive impact is quite distorted, where different studies show different magnitude of the effects of training on expatriate adjustment, with some studies even showing negative correlation (e.g. Palthe 2004; Gregersen and Black 1992). As described earlier, Deshpande and Viswesvaran (1992) found moderately strong correlations; while later on, another meta-analysis by Morris and Robie (2001) showed much lower correlations for the effects of training on adjustment and performance. Hechanova et al. (2003), in their meta-analysis, found corrected mean correlation of -0.14, -0.06 (non-significant), and -0.07 (non-significant) between CCT and general, interaction, and work adjustment respectively. A review of cross-cultural training studies conducted by Mendenhall et al. (2004) showed its effects on expatriate adjustment and performance to be weaker than found by previous empirical research. They note that a possible reason for this finding can be that a lot of studies did not follow the methodological rigor as required.

Previous research has found positive effects of CCT on general adjustment, interaction adjustment, work adjustment, job satisfaction, job performance, and organizational commitment; and negative effect on intentions to quit[4].

[4] For the effects of CCT on general adjustment (see Caligiuri 2000; Osman-Gani and Rockstuhl 2009; Okpara and Kabongo 2011)
For the effects of CCT on interaction adjustment (see Waxin 2004; Okpara and Kabongo 2011)
For the effects of CCT on work adjustment (see Okpara and Kabongo 2011)
For the effects of CCT on job satisfaction (see Naumann et al. 2000; Selmer 2002)
For the effects of CCT on job performance (see Earley 1994)
For the effects of CCT on organizational commitment (see Naumann et al. 2000)
Footnote continued to the next page

Black and Gregersen (1991a) found a significant positive correlation of self-initiated CCT with interaction adjustment. However, no significant relationships were found between CCT (company-provided as well as self-initiated) and general as well as work adjustment. Interestingly, they found a significant but negative correlation of company-provided CCT with interaction adjustment. Authors argue that this negative relationship can be attributed to poor quantity and quality of the cross-cultural training provided by the company. Only one quarter of the respondents in their sample reported receiving cross-cultural training and the training was limited only to a few hours, if provided at all.

Turcotte (1996) examined impact of three CCT techniques (informative, cognitive, and participative CCT) on expatriate adjustment and expatriate satisfaction. She did not find significant positive relationship of any technique with expatriate adjustment. Surprisingly, the author found a negative impact of informative and cognitive CCT on expatriate adjustment and expatriate satisfaction. She found a significant positive impact only of participative CCT on expatriate satisfaction. The author argues that providing information without or with minimal involvement of the participants can be of little value and occasionally can have a negative effect. The author suggests that a positive relationship between participative CCT and expatriate satisfaction indicates the importance of involvement of the participants in the information delivery process.

Downes (1997) tested the effects of CCT on general adjustment, organizational commitment, and job satisfaction but found significant relationship only with organizational commitment. Surprisingly, the author found a significant negative relationship of CCT with job satisfaction. Author attributed it to irrelevancy of the provided training.

Kraimer (1999) examined the effects of CCT on general, interaction, work adjustment, and organizational commitment and did not find any significant correlation. Selmer (2005) also found no support for impact of CCT on any of the adjustment indicators. Osman-Gani and Rockstuhl (2009) found a significant correlation of CCT only with work adjustment; but no significant correlation was found with either of the other two adjustment facets.

Puck, Kittler, and Wright (2008) assessed the effects of training participation, training length, and training comprehensiveness on general, interaction and work adjustment. Only

For the effects of CCT on intentions to quit (see Naumann et al. 2000)

training comprehensiveness showed a significant positive effect on general adjustment. Training participation and training length showed non-significant effects on adjustment. Instead, all three training variables showed non-significant negative relationship with the work adjustment.

As cross-cultural training is aimed at providing the necessary knowledge and acquaintance with culture of the host country and may also include language training; it, therefore, is expected to reduce the stress and uncertainty associated with being an expatriate and to ease the adjustment process.

Following hypothesis is, therefore, developed regarding the effect of CCT on expatriate adjustment:

Hypothesis 2: Cross-cultural training has a positive effect on expatriate adjustment.

A positive effect of cross-cultural training is expected to occur on all facets and outcomes of adjustment except intentions to quit. Same as in case of language, cross-cultural training is expected to correlate negatively with intentions to quit i.e. expatriates equipped with cross-cultural training will be less inclined towards quitting the international assignment and/or the organization. As cross-cultural training focuses more on cultural and language aspects, it is expected that it will have stronger effect on non-work indicators of expatriate adjustment (i.e. general and interaction adjustment) than on work-related indicators of adjustment.

2.5.3 Role ambiguity

Role ambiguity refers to uncertainty and lack of understanding about the work role (Aryee and Stone 1996). Role ambiguity is a result of feelings of the doubt in an expatriate about his/her job requirements at the host location and this leads to inappropriate work behaviors. Role ambiguity not only increases the uncertainty regarding the work conditions (Black 1988), but is also a source of stress (Aryee and Stone 1996), and also affects job satisfaction (Gregersen and Black 1992). Role ambiguity regarding the expatriate assignment creates lack of the clarity in the expatriate's mind about the appropriate actions and behaviors. This results in mental stress thus impeding the adjustment to new work role.

Black (1988) states that job factors that result in an increase in uncertainty (e.g. role conflict, role ambiguity, role novelty, etc.) are likely to have a negative effect on the adjustment;

while on the other hand, adjustment is facilitated by those factors that help to decrease the uncertainty (e.g. role clarity, role discretion, etc.).

Overseas transfer is an entrance into a new organization (even if the individual is transferred to a subsidiary of the parent company). Individuals are not sure what behaviors are appropriate in the new environment. Many role transitions have role ambiguity associated with them. The expatriate is not capable of forecasting the outcome of different behaviors because of role ambiguity; and is less able to use one's past experience to find out the acceptable behaviors. Many studies have found that higher the ambiguity associated with the transition; more difficult the transition is (Shimoni, Ronen, and Roziner 2005). Previous empirical research has found job factors such as role ambiguity, role discretion, and role novelty affecting expatriate work adjustment (e.g. Gregersen and Black 1992; Aryee and Stone 1996; Shaffer et al. 1999).

2.5.3.1 Previous research on the effects of role ambiguity on expatriate adjustment

In previous empirical literature, many studies have reported significant negative impact of role ambiguity on the expatriate adjustment. This negative impact is stronger for work adjustment as compared to general and interaction adjustment. A negative effect of role ambiguity has been found for general adjustment, interaction adjustment, work adjustment, job satisfaction, job performance, and organizational commitment[5]. Role ambiguity has shown positive effect on intentions to quit (see Naumann et al. 2000; Takeuchi et al. 2002) because ambiguity regarding the new work role causes frustration and hence, leads to the mental thoughts about quitting the international assignment.

Black and Gregersen (1991a); Morley and Flynn (2003); and Shimoni et al. (2005) found significant negative correlation between role ambiguity and work adjustment, but not between role ambiguity and general as well as interaction adjustment. Naumann et al. (2000) investigated role ambiguity's effects on organizational commitment and job satisfaction; they found only

[5] For the effects of role ambiguity (RA) on general adjustment (see Black and Gregersen 1990; Takeuchi, Yun, and Tesluk 2002; Kraimer and Wayne 2004)
For the effects of RA on interaction adjustment (see Black 1990; Morley and Flynn 2003)
For the effects of RA on work adjustment (see Black and Gregersen 1991a; Takeuchi et al. 2002; Shimoni et al. 2005; Chi and Chiou 2007)
For the effects of RA on job satisfaction (see Aryee and Stone 1996; Naumann et al. 2000; Au and Fukuda 2002)
For the effects of RA on job performance (see Wang 2001; Kraimer and Wayne 2004)
For the effects of RA on organizational commitment (see Naumann et al. 2000; Kraimer and Wayne 2004)

organizational commitment to be significantly and negatively affected by role ambiguity but not job satisfaction.

The non-significant relationship of role ambiguity with general and interaction adjustment in many studies is suggestive of the existence of within-domain effects where role ambiguity is strongly associated with work facets of adjustment rather than with non-work facets.

Third hypothesis regarding the effect of role ambiguity on expatriate adjustment is formulated as follows:

Hypothesis 3: Role ambiguity has a negative effect on expatriate adjustment.

As role ambiguity refers to the confusion about one's work role at the host location and it is a source of stress; it is expected to be negatively related with all facets of expatriate adjustment except intentions to quit. Because role ambiguity is a work-related antecedent, it is expected to correlate strongly with work-related facets and outcomes of expatriate adjustment (i.e. work adjustment, job satisfaction) as compared to the non-work related facets (i.e. general adjustment, interaction adjustment). And role ambiguity is expected to relate with intentions to quit positively i.e. more ambiguous the work role is, more intentions to quitting the assignment arise in one's mind. According to the cross-domain effects scenario, role ambiguity is also expected to affect non-work related indicators of expatriate adjustment (i.e. general and interaction adjustment), though not as strongly as work-related indicators (i.e. work adjustment, job satisfaction, etc).

2.5.4 Family support & adjustment

Family adjustment is the level of comfort that spouse and/or children experience at the host culture; and it has major effect on adjustment of the expatriate (Shaffer et al. 1999). As mentioned earlier, expatriate international assignment is a transition in work role. When the family of an expatriate has to undergo a big change as a part of the expatriation process, the family's adaptation to this change has a conspicuous effect on expatriate's transition at the work. Tung (1982); and Arthur and Bennett (1995) describe family issues as a decisive factor behind success or failure of an overseas assignment.

Research on expatriate adjustment process has proposed that most important non-work variable in adjustment of the expatriates is the spouse's adjustment (Black et al. 1991). The expatriate may possess required skills for international assignment; but if the spouse does not possess required skills, it can result in maladjustment of the expatriate at the host location and thus in a failed assignment. Spouse can help expatriate psychologically to build his/her confidence and to reassure him/her regarding his/her abilities. Regarding general adjustment, spouse can get information about host country and can share it with the expatriate (Kraimer, Wayne, and Jaworski 2001).

A very important non-work variable in the adjustment of U.S. expatriates is family adjustment especially adjustment of the spouse (Black 1988). Black and Stephens (1989), describing the reasons of lack of family adjustment, note that families are usually not taken into consideration during the expatriate selection process. As a result of this negligence, families are also not included into the cross-cultural training programs further impeding their adjustment at the host location. Furthermore, international move of the expatriate can be a considerable disruption of the career of spouse.

Fukuda and Chu (1994) found family issues as one of the top-ranked reasons leading to premature termination of the expatriate assignments. Caligiuri, Hyland, Joshi, and Bross (1998) found a positive mediating effect of family adjustment on expatriate adjustment. They argued that family adjustment becomes important for adjustment of the expatriate because international move is a source of displacement not only for the expatriate, but also for the whole family.

2.5.4.1 Previous research on the effects of family support on expatriate adjustment

Previous empirical research showed a significant positive effect of family support & adjustment (FSA) on general adjustment, interaction adjustment, work adjustment, intent to stay, job satisfaction, job performance, and organizational commitment[6]. Empirical research also found

[6] For the effects of FSA on general adjustment (see Black and Gregersen 1991a; Stierle, Van Dick, and Wagner 2002; Palthe 2004; Gabel, Dolan, and Cerdin 2005; Takeuchi, Lepak, Marinova, and Yun 2007)
For the effects of FSA on interaction adjustment (see Palthe 2004; Gabel et al. 2005; Shimoni et al. 2005)
For the effects of FSA on work adjustment (see Black and Gregersen 1991a; Caligiuri et al. 1998; Gabel et al. 2005; Shimoni et al. 2005)
For the effects of FSA on intent to stay (see Turcotte 1996; Shaffer and Harrison 1998)
For the effects of FSA on job satisfaction (see Takeuchi et al. 2002)
For the effects of FSA on job performance (see Wang 2001; Toh 2003)
Footnote continued to the next page

significant negative impact of FSA on expatriate intentions to quit/return early (see Birdseye and Hill 1995; Stierle et al. 2002).

In contrast to the above-mentioned empirical studies, there are many research studies which failed to find a significant relationship of FSA with one or more facets of the expatriate adjustment. Black (1988); Shaffer et al. (1999); and Kraimer et al. (2001) found a significant relationship of FSA with general and interaction adjustment but not with work adjustment. Li (1996); and Lee (2002) were unable to find a significant effect of FSA on general adjustment and job satisfaction. Shaffer and Harrison (1998) found a significant relationship of FSA with general adjustment, interaction adjustment, job satisfaction, and intentions to quit but not with expatriate work adjustment and organizational commitment. Aryee and Stone (1996); Liu and Lee (2008) failed to find significant correlation of FSA with expatriate job satisfaction. Stierle et al. (2002) did not find significant correlation of FSA with expatriate job satisfaction, performance, and intentions to quit. Lee and Sukoco (2010) also could not find significant correlation of FSA with expatriate general adjustment and performance. Stroppa and Spiess (2010) found a non-significant correlation of FSA with organizational commitment and job satisfaction.

In the light of the literature review presented above, fourth hypothesis is formulated as follows:

Hypothesis 4: Family support & adjustment has a positive effect on expatriate adjustment.

The brief review of literature presented above shows weaker effects of family support & adjustment on work adjustment as compared to general and interaction adjustment. In view of the previous literature and within-domain as well as cross-domain effects context; it is expected that its effects will be stronger on non-work related indicators of adjustment (e.g. general adjustment, interaction adjustment) as compared to the work-related indicators (e.g. work adjustment, job satisfaction).

As family support & adjustment will help expatriates to get rid of stress and will provide mental relaxation, it is expected that it will affect all facets of expatriate adjustment positively

For the effects of FSA on organizational commitment (see Kraimer 1999)
FSA = Family support & adjustment

except intentions to quit. It is expected to affect intentions to quit negatively i.e. it will help to suppress withdrawal intentions because of supportive function of the family.

2.6 Expatriate Adjustment and Outcomes of Expatriate Adjustment

In this research, expatriate adjustment construct is treated in its tri-faceted nature having three distinct facets of general adjustment, interaction adjustment, and work adjustment. In addition to that, impact of the selected antecedents is also examined on outcomes of the adjustment.

Thus, following seven dependent variables are used for the meta-analysis dealing with the effects of antecedents on expatriate adjustment as well as outcomes of adjustment:

- General adjustment
- Interaction adjustment
- Work adjustment

→ Expatriate Adjustment

- Job satisfaction
- Job performance
- Intentions to quit
- Organizational commitment

→ Outcomes of the Adjustment

The outcomes, though, not primarily facets of expatriate adjustment; are included as dependent variables because they are frequently examined in relation to the antecedents in empirical expatriate adjustment literature. Moreover, the outcomes have very important consequences for the organizational goals as well as for the expatriates individually. So, it is of vital importance that effects of antecedents are examined not only on expatriate adjustment but also on outcomes of the adjustment.

A brief review of the literature regarding primary facets of expatriates adjustment and outcomes of the adjustment is presented below:

2.6.1 General adjustment

General adjustment is the comfort originating from a number of non-work factors. These may include general living conditions, housing, transportation, food, education, entertainment, health care facilities, etc (Bhaskar-Shrinivas et al. 2005). General adjustment includes adjustment to the daily life situations at the host location apart from adjustment to the working conditions.

2.6.2 Interaction adjustment

Interaction adjustment gives an assessment of how much an expatriate is at ease while developing interpersonal relationships with local people. It refers to level of interaction with locals both at work and non-work places.

2.6.3 Work adjustment

Work adjustment is related to the work life at the host location. It depicts how much an expatriate is comfortable with new job at the foreign subsidiary. Work adjustment is that facet of adjustment that deals with adjustment to the work conditions and hence, is especially important regarding work-related outcomes of expatriate assignment.

2.6.4 Job satisfaction

Job satisfaction is defined as a 'pleasurable or positive emotional state resulting from an appraisal of one's job or job experiences' (Locke 1976, p. 1300). Job satisfaction is primarily related to the work environment at host location. It refers to feelings of the individuals regarding their job and its different aspects and is also concerned with the liking or disliking about one's job. Job satisfaction is assumed to arise from adjustment to the new work role. Better interaction with customers and local employees also develop the feelings of job satisfaction (Shaffer and Harrison 1998).

Job satisfaction has been conceptualized as a unitary construct by many researchers. But it has also been conceptualized as a bi-faceted construct consisting of two separate facets namely intrinsic and extrinsic job satisfaction (Naumann 1993b). Intrinsic satisfaction depends on actual execution of the job tasks and stems from the feelings of achievement and self-actualization. Extrinsic satisfaction depends on the rewards offered to the individual by coworkers and organization; these may include compensation, monetary benefits, bonus, etc (Naumann 1993b).

The above-mentioned two facets of job satisfaction construct are also appropriate in the context of expatriation because inputs for each two facets exist in foreign environment. Expatriates may find the new foreign environment interesting; and they may experience intrinsic job satisfaction upon effectively adjusting to the new work environment. Expatriates, in most cases, are provided with additional incentives such as higher compensation, transportation allowance, housing, education for children, etc. These incentives may result in better extrinsic job satisfaction.

The expatriates are motivated to performing in a good way and staying overseas to finish the assignment if they are better satisfied with their jobs. Dissatisfied expatriates are less enthusiastic to stay at host location and to perform better.

2.6.5 Job performance

Job performance is an important aspect contributing towards the success of an international assignment. However, in addition to treating job performance as a unitary construct, multidimensional nature of this construct has been explored and supported in empirical literature. Borman and Motowidlo (1993) suggested and found empirical support for two distinct dimensions of the job performance:

- Task performance
- Contextual performance

2.6.5.1 Task performance

Motowidlo and Van Scotter (1994) distinguish task performance into two classes of behavior. One is related to the production and includes core activities regarding the operations of an organization, for example, production of goods on a manufacturing plant, selling the goods, etc. The other class is related to the maintenance and consists of the activities that facilitate core activities in different ways i.e. by providing the supply of raw material, distribution of the finished goods, human resource management functions, etc (Motowidlo and Van Scotter 1994).

2.6.5.2 Contextual performance

In contrast, contextual performance is not related to actual execution of job tasks, but it supports the atmosphere in which actual job tasks are performed (Motowidlo and Van Scotter 1994).

The notions of above-mentioned two separate facets of job performance construct are well applied in expatriate context too. Expatriate managers are expected to perform specific job-related tasks at the host location, for example performing oil exploration activities at specific digging sites, managing an overseas manufacturing facility, etc. On the same time, they have to deal with an international context in which they are performing their core duties. Effective management of international dimensions of the job, in addition to task specific responsibilities, constitutes expatriate contextual performance (Kraimer et al. 2001).

2.6.6 Intentions to quit

Withdrawal cognitions or intentions to quit refer to the thoughts and plans about quitting or returning prematurely from the international assignment (Shaffer and Harrison 1998). Expatriate turnover happens when expatriates leave the assignment and/or the organization before expected duration of the assignment is completed. Turnover could be categorized as external and internal. External turnover refers to leaving the organization and internal turnover refers to changing jobs within the organization (Naumann 1993a).

A vast majority of the empirical studies in the expatriate literature have relied on intent to turnover measures instead of actual turnover; while some have also discussed actual expatriate turnover. Difficulties in getting access to the actual turnover data is a reason for relying on intentions to turnover measures. Previous research has confirmed that intentions to quit, though not representing actual turnover, is a good proxy for actual turnover[7].

Expatriate intentions to quitting the assignment or the organization may be an important consequence for organization because it can translate into actual turnover and the organization may lose investment made in the respective employee. Dissatisfaction with the new job responsibilities at host location may motivate employees to look for alternative job opportunities (Birdseye and Hill 1995). It is, therefore, very important to recognize the antecedents that may lead to withdrawal intentions.

Intentions to quit may refer to intentions to quitting the international assignment earlier than the planned termination date as well as to quitting the organization during foreign stay or within a short period of time after repatriation.

[7] See meta-analysis by Steel and Ovalle (1984)

Turnover intentions may be a way out for the individuals to cope with the negative effects of bitter experiences they face in their international assignment (Kim and Slocum Jr. 2008). Difficulty in adjustment to the new work role can lead to psychological discomfort. Expatriates may respond to this discomfort by withdrawing themselves from this unpleasant situation. This withdrawal, however, may be physical as well as psychological as previous research has found that actual turnover does not happen in many cases (Adler 1986), even if the expatriates had intentions to do so. In actual, intentions to turnover occur more often than the actual turnover (Toh 2003).

2.6.7 Organizational commitment

Organizational commitment refers to 'an employee's belief in the organization's goals and values, desire to remain a member of the organization and loyalty to the organization' (Naumann et al. 2000, p. 230)[8].

Three types of organizational commitment have been identified in organizational literature:

- Affective commitment
- Continuance commitment
- Normative commitment

2.6.7.1 Affective commitment

It is an employee's sentimental connection to the organization that strengthens association of the employee with the organization (Allen and Meyer 1990).

2.6.7.2 Continuance commitment

It refers to the propensity of the employee to continue the employment contract with the organization (Becker 1960).

2.6.7.3 Normative commitment

It refers to the commitment to the values of the organization (Meyer, Allen, and Smith 1993).

[8] For details see Mowday, Porter, and Steers (1982)

In expatriate literature, clear distinction has also been drawn regarding focus of the organizational commitment. In the context of international assignments, expatriates develop two commitment relationships:

- Commitment to the parent company
- Commitment to the foreign operation

(Gregersen and Black 1990)

This definition of commitment and bifurcation of commitment construct according to the focus of commitment is of practical importance. Expatriate employees actually belong to two organizations in the context of an international assignment: parent organization (which sent expatriate on international assignment and to which expatriate belongs) and local company (where expatriate is working temporarily on host location and it can be a subsidiary of the parent organization). Both types of organizational commitment are important for success of the expatriate assignment.

2.6.7.4 Commitment to the parent company

Expatriates generally tend to exhibit good levels of organizational commitment to the parent company. Most of the expatriates who are sent on international assignments belong to middle or top level management positions and have many years of tenure with the parent organization. High level of commitment to the parent company on part of the expatriate is also evident from the fact that expatriate manager accepts foreign assignment in a new and unknown location and culture that can result in a significant drawback to his/her career path in case of failure.

2.6.7.5 Commitment to the foreign operation/local company

Likewise, once expatriates leave their home country and enter into the host location, they develop commitment also to the local company by adapting themselves to the local organizational culture.

Commitment to the organization becomes important when expatriates face problems regarding day-to-day living in foreign environment. In this situation, better committed

expatriates are expected to sustain the pressure and to stay and perform on the assignment; while maladjustment may result in reducing the level of commitment.

Chapter 3
Methodology

3.1 Literature Search

I used computer aided search tools to identify relevant research studies in many databases including, but not limited to, ABI/INFORM Global, ScienceDirect, PsycINFO, PsycNET, SAGE, JSTOR, informaworld, Emerald, Wiley InterScience, EBSCO, Springer, etc.

Different combinations of keywords were used to identify relevant studies. At a broader level, all the studies, identified through keyword 'expatriat*' and 'adjust*' and other keywords for dependent variables, were reviewed without short listing on the basis of specific antecedents and empirical nature of the studies. This step was executed to ensure inclusion of all the relevant studies. In addition to that, many reputable journals in the fields of management and psychology were also searched separately to identify relevant studies.

Moreover, reference lists of the identified studies and major research reviews were also consulted to identify more relevant studies. In certain instances of failing to locate specific research studies, the authors were contacted personally and were requested to provide them. In addition to the research studies published in scholarly journals, unpublished studies were also included in meta-analysis to avoid the problem of publication bias. At the end of the comprehensive search process, a total of 98 research studies were identified to be included in meta-analysis. These included both published and unpublished studies (see appendix 4 for a complete list of research studies included in this research).

3.1.1 Inclusion criteria

For a study to be qualified for inclusion the in meta-analysis, it must fulfill the following criteria:

- Study must be an empirical study
- Study must report relationship(s) between included antecedents and adjustment/outcome variables or relationship(s) between adjustment and outcomes of adjustment
- Study must report sample size and necessary statistical information e.g. correlation coefficient, Cronbach alpha, etc., needed for computation of the effect size.

- Sample must represent business expatriates. Studies using samples comprising of students, sojourners, Peace Corps or missions, etc., were not included.

3.2 Coding of the Studies

Studies were coded for all the necessary statistical information needed for computation of the effect sizes including antecedent and adjustment variables, sample size, correlation coefficient, reliability coefficient, method of analysis, etc. Additionally, the studies were also coded for many sample and study characteristics. The sample characteristics and study characteristics are as follows:

3.2.1 Sample characteristics

Some of the sample characteristics include:

- Age of the expatriates
- Gender distribution
- Marital status
- Nationality and country of origin of the expatriates
- Country of expatriation
- Job position held at the host location
- Industries to which the sample of expatriates belongs
- Previous overseas experience of the expatriates
- Length of stay at host location
- Availability of cross-cultural training
- Language of the host country
- Organizational tenure
- Anticipated length of the assignment

3.2.2 Study characteristics

Some of the study characteristics include:

- Year of publication
- Journal (in case if published study)
- Source of measurement of antecedent and criterion variables

(Appendix 5 presents certain characteristics of the included research studies)

3.3 Meta-Analysis

Narrative reviews can help to sum up the work on a particular topic but they lack in quantitative interpretation. Lack of quantitative analysis coupled with statistical artifacts present in primary research studies may lead to false conclusions drawn through narrative reviews (Hunter and Schmidt 1990).

Meta-analysis is a technique for quantitative review that produces an accurate estimate of the relationship between respective variables by aggregating the research results from a number of primary studies (Dalton, Daily, Certo, and Roengpitya 2003). With the emergence of abundant research studies in the empirical literature, meta-analytic techniques can be used for clarification of the effect sizes. The accuracy is insured by meta-analysis methodology allowing for correction of the statistical artifacts such as sampling error, measurement error, range restriction, etc (Hunter and Schmidt 1990).

The primary objective of the meta-analysis is to clarify ambiguous and contradictory results arising from a bunch of research studies dealing with the same matter. The effect sizes determined after combining the findings of primary studies are based on much larger samples because they involve subjects from a number of primary studies. This increases the statistical power and allows the results to be generalized to a larger extent.

3.3.1 Psychometric meta-analysis methodology by Hunter and Schmidt (1990)

I used psychometric meta-analysis methodology developed by Hunter and Schmidt (1990) because of its potential advantage for correcting the effect sizes for statistical artifacts (e.g. sampling error, unreliability, etc.) over other methods e.g. meta-analysis methodology developed by Hedges and Olkin (1985). The validity of the corrected mean correlations obtained through meta-analysis can be expected to generalize if a major portion of the observed variability among effect sizes (equal to or more than 75%) can be attributed to sampling and reliability errors, etc. (Hunter and Schmidt 1990).

In this research, the effect sizes were controlled for sampling and reliability errors. Correlation coefficient was used as a measure of the effect size. Sample size weighted mean correlations were calculated. They were then corrected for the measurement error to calculate the

true score correlation (ρ). The 95% confidence intervals and 90% credibility intervals were also calculated.

Chapter 4
Results

In this section, meta-analysis results of the relationships between four antecedents and three facets of expatriate adjustment (general, interaction, and work adjustment) as well as four outcomes of adjustment (job satisfaction, job performance, intentions to quit, and organizational commitment) are reported. Meta-analyses are not reported for correlations of cross-cultural training with intentions to quit; and role ambiguity with performance due to lack of sufficient data.

A true score correlation (ρ) was deemed significant when the 95% confidence intervals around rho (ρ) did not include zero. If more than one study were based on a single sample for same variable(s), only one of them was included in the analysis, to avoid duplication. For meta-analyses of the effects of antecedents on expatriate adjustment, the results are reported if at least three samples were available for a relationship. Tables 1 to 4 show the results of meta-analysis for language, cross-cultural training, role ambiguity, and family support & adjustment respectively.

Magnitude of estimated mean correlations

Correlations were labeled as large, medium, and small in line with Cohen's rule of thumb who described a correlation of 0.10 being small; 0.243 being medium; and 0.371 being large.

4.1 Meta-Analysis Results

4.1.1 Language (Hypothesis 1)

Knowledge of the language of the host country mostly revealed positive effects on expatriate adjustment except intentions to quit. The meta-analysis results for the effects of language on expatriate adjustment are presented in table 1. Language showed significant positive correlation with general adjustment. It had a medium corrected mean correlation (corrected for sampling and reliability error) with general adjustment. Estimated corrected mean correlation (ρ) between language and general adjustment was 0.247.

Table 1: Meta-Analysis Results of Language on Expatriate Adjustment

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
Language Ability									**Lower**	**Upper**	**Lower**	**Upper**
	General Adjustment	11	1990	0.219	0.010	49.920	0.247**	0.006	0.180	0.314	0.116	0.378
	Interaction Adjustment	8	1716	0.395	0.013	27.001	0.443**	0.012	0.355	0.531	0.265	0.621
	Work Adjustment	9	1763	0.171	0.018	26.722	0.199**	0.018	0.096	0.302	-0.020	0.419
	Job Satisfaction	8	976	0.188	0.002	317.052	0.208**	0.000	0.170	0.246	0.208	0.208
	Performance	3	399	0.264	0.024	27.648	0.288**	0.020	0.098	0.479	0.055	0.522
	Intentions to Quit	6	881	-0.127	0.006	114.540	-0.143**	0.000	-0.212	-0.074	-0.143	-0.143
	Organizational Commitment	4	706	0.102	0.003	194.767	0.109**	0.000	0.053	0.165	0.109	0.109

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

Language revealed significant positive correlation with interaction adjustment. Estimated corrected mean correlation (ρ) of language with interaction adjustment was 0.443 and it was of large magnitude. The correlation between language and interaction adjustment was largest among the correlations of language with all the dependent variables. The correlation of language with work adjustment was also significant and positive. The estimated corrected mean correlation between language and work adjustment was a medium one (ρ = 0.199).

Language also showed mostly significant relationships with the outcomes of adjustment. The corrected mean correlation between language and job satisfaction was significant and positive. It was a medium correlation (ρ = 0.208). Language revealed significant and positive corrected mean correlation with expatriate job performance. The estimated corrected mean correlation (ρ) between language and performance was 0.288 and it was also a medium correlation. Language showed a negative significant effect on expatriate intentions to quit. The correlation between language and intentions to quit was, however, a small one (ρ = -0.143). Language had a negative effect on intentions to quit because lack of language knowledge leads to anxiety and frustration; and creates intentions to quitting the assignment. Language had a significant positive impact on organizational commitment. The corrected mean correlation between language and organizational commitment was of a small magnitude (ρ = 0.109). The correlation between language and organizational commitment was smallest among correlations of language with all the dependent variables.

4.1.1.1 Summary of meta-analysis results between language and dependent variables

Language showed significant correlations with all the facets of adjustment and adjustment outcomes, though varying in magnitude. Hypothesis 1 is confirmed. Language had a large correlation with interaction adjustment; medium correlations with general adjustment, work adjustment, job satisfaction, performance; and small correlations with intentions to quit and organizational commitment. Language showed largest correlation with interaction adjustment; and smallest correlation with organizational commitment.

The results show that knowledge of the language of host country eases adjustment at the host location. This is because language fluency reduces the stress and frustration; and improves communication thus facilitating the adjustment. The results also confirm within-domain and cross-domain effects. Language is a non-work related antecedent and shows strongest correlation

with interaction adjustment (non-work facet of expatriate adjustment); that is almost of double magnitude than the correlations of language with work adjustment and job satisfaction (work-related facets of adjustment). Cross-domain effects are also displayed as language also shows significant effects on work-related facets of adjustment, though not as strong as with non-work related facets.

As can be seen in table 1 and in subsequent tables reporting meta-analysis results, in some cases with low k, percentage of variance explained by sampling error and other statistical artifacts is more than 100 percent. This is because, on certain instances, sampling error variance will actually be greater than the observed variance across the effect sizes calculated from the primary studies. This situation causes sampling error to account for more than 100 percent of the observed variance (Arthur, Bennett, and Huffcutt 2001). In this situation, as a standard practice, values more than 100 percent can be substituted with 100 percent (Arthur et al. 2001). Here, actual percentage values are reported; however, values above 100 percent can be interpreted as 100 percent and show that there is no unexplained variance.

4.1.2 Cross-cultural training (Hypothesis 2)

Cross-cultural training (CCT) showed mostly weak and non-significant correlations with all facets of adjustment and adjustment outcomes. Table 2 presents the meta-analysis results for the effects of CCT on expatriate adjustment. The results regarding each dependent variable are described below:

CCT showed non-significant positive effect on general adjustment. Estimated corrected mean correlation (ρ) between two variables was 0.049. The 95% confidence interval was -0.037 – 0.135. As 95% confidence interval includes zero, it shows that the effect is non-significant. CCT had a non-significant positive correlation also with interaction adjustment. Corrected mean correlation was estimated as ρ = 0.170. Correlation was non-significant at conventional .05 level; however, it was significant at .10 level and was of a small magnitude. The corrected mean correlation between CCT and work adjustment was also non-significant (ρ = 0.015). This correlation was near-zero and was smallest among correlations with all the dependent variables.

For outcomes of adjustment, CCT revealed mixed results. It had a significant positive impact on job satisfaction and the corrected mean correlation was of a medium magnitude (ρ = 0.244). The corrected mean correlation between CCT and job performance was positive but not significant (ρ = 0.034). CCT revealed a significant correlation with expatriate organizational commitment. The estimated mean corrected correlation was 0.189 and it was of a medium magnitude.

Meta-analysis was not conducted for the effects of training on expatriate intentions to quit because of insufficient data.

4.1.2.1 Summary of meta-analysis results between cross-cultural training and dependent variables

CCT was not found to be correlated significantly with majority of the adjustment facets and outcomes. Hypothesis 2 is, therefore, not supported. CCT had a significant correlation only with organizational commitment and job satisfaction, both were of medium magnitude. Correlations of CCT with general adjustment, interaction adjustment, work adjustment, and job performance were not significant.

Table 2: Meta-Analysis Results of Cross-Cultural Training on Expatriate Adjustment

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
Cross-Cultural Training									**Lower**	**Upper**	**Lower**	**Upper**
	General Adjustment	15	2678	0.039	0.018	30.560	0.049	0.020	-0.037	0.135	-0.181	0.280
	Interaction Adjustment	10	2109	0.160	0.076	5.982	0.170	0.079	-0.012	0.351	-0.293	0.632
	Work Adjustment	8	1564	0.014	0.019	27.558	0.015	0.016	-0.088	0.118	-0.191	0.221
	Job Satisfaction	7	975	0.202	0.018	36.402	0.244**	0.017	0.123	0.365	0.031	0.456
	Performance	5	714	0.032	0.036	19.338	0.034	0.033	-0.144	0.212	-0.264	0.331
	Organizational Commitment	4	845	0.158	0.024	18.611	0.189*	0.028	0.006	0.371	-0.085	0.462

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

The results show positive but weak and, in some cases, negligible effects of CCT on expatriate adjustment. This is contradictory to certain findings from earlier research and general beliefs about efficacy of the CCT. Poor quality of training provided to the expatriates can be a reason for weak effects. In many cases, CCT that was provided to the expatriates was too short to cover necessary aspects of the host culture and language. Moreover, in many studies, data for the contents and outline of CCT were not available.

4.1.3 Role ambiguity (Hypothesis 3)

Role ambiguity showed significant correlations with almost all facets of the adjustment and adjustment outcomes. All correlations (except for intentions to quit) were in the expected direction i.e. negative; while correlation with intentions to quit was positive. Role ambiguity affected expatriate adjustment negatively. The meta-analysis results for the relationships of role ambiguity with different indicators of expatriate adjustment are reported in table 3. Meta-analysis results regarding role ambiguity are described below:

Role ambiguity had a significant negative corrected mean correlation with general adjustment. The estimated corrected mean correlation (ρ) between role ambiguity and general adjustment was -0.371 and it was of a large magnitude. Role ambiguity showed significant negative correlation also with interaction adjustment. The estimated corrected mean correlation (ρ) was -0.124. The magnitude of the correlation, however, was small.

Role ambiguity revealed a strong negative correlation with work adjustment (ρ = -0.569). This effect was highest among all the dependent variables and was of a large magnitude. This is in line with the scenario of within-domain effects and shows a stronger effect of role ambiguity on work-related adjustment because it is a work-related antecedent.

Role ambiguity showed significant relationships also with outcomes of the adjustment. It had a negative and significant correlation with job satisfaction (ρ = -0.557); and it was of large magnitude. This correlation was second highest after work adjustment. This again shows that role ambiguity, being a work-related antecedent, has stronger effect on job satisfaction (a work-related outcome). Role ambiguity had a significant correlation also with intentions to quit. The correlation was positive and was in opposite direction as compared to other indicators of adjustment. This was in expected direction and was positive as greater role ambiguity tends to boost the intentions to quitting the assignment and/or the organization. The estimated corrected mean correlation (ρ) between role ambiguity and intentions to quit was 0.317. The correlation was of large magnitude. It also had a significant negative correlation with organizational commitment (ρ = -0.440). This effect was also of large magnitude.

The analysis could not be conducted for expatriate job performance as a dependent variable because sufficient data were not available for this relationship.

Table 3: Meta-Analysis Results of Role Ambiguity on Expatriate Adjustment

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
Role Ambiguity									**Lower**	**Upper**	**Lower**	**Upper**
	General Adjustment	7	1095	-0.296	0.018	31.324	-0.371**	0.019	-0.495	-0.246	-0.598	-0.144
	Interaction Adjustment	3	343	-0.095	0.007	131.636	-0.124*	0.000	-0.245	-0.003	-0.124	-0.124
	Work Adjustment	7	910	-0.465	0.008	71.265	-0.569**	0.003	-0.649	-0.489	-0.663	-0.475
	Job Satisfaction	7	1345	-0.474	0.004	90.059	-0.557**	0.001	-0.611	-0.503	-0.595	-0.519
	Intentions to Quit	3	576	0.271	0.001	344.482	0.317**	0.000	0.269	0.365	0.317	0.317
	Organizational Commitment	5	1030	-0.366	0.011	35.723	-0.440**	0.010	-0.550	-0.331	-0.604	-0.277

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

4.1.3.1 Summary of meta-analysis results between role ambiguity and dependent variables

Role ambiguity showed significant correlations with all the dependent variables. Hypothesis 3 is confirmed. Large correlations were found for the relationships of role ambiguity with general adjustment, work adjustment, job satisfaction, intentions to quit, and organizational commitment; while correlation of the role ambiguity with interaction adjustment was small. The highest correlation of role ambiguity was with work adjustment.

Role ambiguity had negative effects on expatriate adjustment because ambiguity regarding the new work role leads to feelings of stress and frustration which, in turn, inhibit the adjustment.

4.1.4 Family support & adjustment (Hypothesis 4)

The correlations of family support & adjustment were significant and positive for all facets of expatriate adjustment and adjustment outcomes, except for intentions to quit. Table 4 shows the meta-analysis results between family support & adjustment and expatriate adjustment. The results are described below for each dependent variable:

Family support & adjustment (FSA) showed a significant positive correlation with general adjustment. The corrected mean correlation (ρ) between FSA and general adjustment was 0.518 and was of large magnitude. This correlation was largest among all the dependent variables confirming stronger impact of non-work related antecedents on non-work related indicators of expatriate adjustment. FSA also had significant positive correlation with interaction adjustment. The corrected mean correlation (ρ) was 0.424 and was also of a large magnitude. The correlation between FSA and interaction adjustment was second highest further confirming stronger effects of non-work related antecedents on non-work related indicators of expatriate adjustment. FSA revealed significant positive correlation also with work adjustment. The corrected mean correlation (ρ) was 0.246 and it was a medium one.

FSA revealed significant effects also on outcomes of the adjustment. For job satisfaction, FSA showed a significant positive correlation. The corrected mean correlation (ρ) between FSA and job satisfaction was 0.213 and it was a medium correlation. FSA also had a positive significant correlation with expatriate job performance. This correlation was of a medium magnitude ($\rho = 0.262$). FSA showed a significant negative correlation with intentions to quit. This is in expected direction i.e. family support & adjustment will suppress an expatriate's intentions to quitting the assignment. The estimated corrected mean correlation (ρ) between FSA and intentions to quit was of a medium magnitude (-0.172). For organizational commitment, correlation was also significant and positive. The corrected mean correlation (ρ) between FSA and expatriate organizational commitment was 0.196 and it was of medium magnitude.

Table 4: Meta-Analysis Results of Family Support & Adjustment on Expatriate Adjustment

Antecedent	Correlates	K	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
Family Support & Adjustment									**Lower**	**Upper**	**Lower**	**Upper**
	General Adjustment	21	3148	0.429	0.044	11.745	0.518**	0.055	0.410	0.626	0.131	0.904
	Interaction Adjustment	10	1699	0.378	0.037	12.187	0.424**	0.040	0.291	0.557	0.095	0.753
	Work Adjustment	14	2218	0.212	0.018	33.271	0.246**	0.016	0.165	0.327	0.039	0.453
	Job Satisfaction	12	1841	0.179	0.017	36.006	0.213**	0.015	0.124	0.302	0.009	0.417
	Performance	4	603	0.221	0.011	54.235	0.262**	0.007	0.138	0.385	0.123	0.401
	Intentions to Quit	4	483	-0.140	0.011	71.702	-0.172**	0.005	-0.300	-0.044	-0.285	-0.059
	Organizational Commitment	4	673	0.157	0.003	211.261	0.196**	0.000	0.132	0.260	0.196	0.196

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

4.1.4.1 Summary of meta-analysis results between family support & adjustment and dependent variables

Correlations of family support & adjustment with all the adjustment facets and outcomes were significant differing in magnitude. Hypothesis 4, therefore, is confirmed. Overall, FSA showed highest meta-analytic correlations with non-work facets of adjustment (general and interaction adjustment). FSA showed large correlations with general and interaction adjustment; and medium correlations with work adjustment, job satisfaction, performance, intentions to quit, and organizational commitment. FSA showed largest correlation with general adjustment. The results regarding the effects of FSA on different facets of expatriate adjustment again confirm within-domain and cross-domain effects. FSA is a non-work antecedent and results show that it is correlated most strongly with general and interaction adjustment (non-work facets of adjustment), thus confirming within-domain effects. On the other hand, FSA showed comparatively weaker correlations with work-related indicators of adjustment. The effect sizes of FSA with work adjustment (0.246), job satisfaction (0.213), and job performance (0.262) were almost half in magnitude than with general and interaction adjustment (0.518 and 0.424 respectively).

4.2 Moderator Analysis

Moderator analysis is an important advantage offered by meta-analysis methodology. Large variation in effect sizes across the studies indicates presence of the potential moderators. Presence of the moderators can be detected in many ways. Moderators may be operating in case if less than 75% of the observed variance in correlations is explained by sampling and measurement error, and other statistical artifacts (Hunter and Schmidt 1990). Moreover, Kemery, Dunlap, and Griffeth (1988); and Kowlowsky and Sagie (1993) advise looking for moderators in case of larger credibility intervals. Studies should be coded for potential moderators. Moderator's effect can be judged by dividing the sample into sub-groups based on specified moderators and then by running separate meta-analyses on these sub-groups and looking if meta-analyses results are significantly different.

For this research, the studies were coded for many moderators. The specified moderators included moderators supported by theories as well as moderators defined on the basis of certain study and sample characteristics.

The studies were coded for following moderators:

4.2.1 Study characteristics

- Published versus unpublished studies
- Self versus external measures of predictor and adjustment variables

4.2.2 Sample characteristics

- Length of the stay at host location
- USA versus Non-USA sample origin
- Multiple countries versus single country of expatriation
- Age of the expatriates
- Length of tenure with the parent organization
- Host country language – English versus not English
- Previous international experience of the expatriates

Direction of difference for the moderating effect was specified a priori for such moderators which are supported by theories and/or which are intuitively appealing. These included:

- Host country language – English versus not English
- Previous international experience of the expatriates
- Published versus unpublished studies

For rest of the moderators, differences between the subgroup meta-analytic results were calculated without specifying direction a priori to see if subgroups were significantly different.

4.2.3 Detail of included moderators

Below, all moderators are explained briefly and hypothesized direction of the moderating effect is discussed in case of the moderators for which direction of the moderating effect is specified a priori:

4.2.3.1 Length of the stay at host location

This moderator was included in analysis in the light of U-curve theory of adjustment. U-curve theory proposes that adjustment in new culture follows a pattern and is a time-dependent process. Therefore, length of the stay at host location can have an effect on adjustment. That's why, it was expected that the length of stay at host location can have a moderating effect on the relationships between antecedents and adjustment variables. For this moderator, the studies were divided into two groups on the basis of sample's average length of stay: studies with expatriate samples having shorter duration at the host location and the studies with expatriate samples having longer duration at the host location. Shorter duration was defined as the duration of stay less than 31 months (median value) and longer duration was defined as the duration more than 31 months. The direction of the moderating effect, however, was not specified for this moderator.

4.2.3.2 USA versus Non-USA sample origin

It was decided to examine moderating effect of the nationality of expatriates because of a shift of focus over time from American expatriate samples to other nationalities of expatriates in the expatriate empirical literature. Many earlier studies on expatriate adjustment are based on samples drawn only from the USA. It, therefore, seems interesting to see if studies relying on the non-USA samples reveal different results than those relying on the USA samples. For this

purpose, data were divided into two subgroups; studies based on expatriate samples drawn entirely from the USA and the studies based on expatriate samples drawn from countries other than the USA. Also for this moderator, no direction of effect was pre-specified.

4.2.3.3 Multiple countries versus single country of expatriation

Another sample characteristic which was examined for moderating effect is single versus multiple country of expatriation. This moderator was examined to differentiate the variance coming from multiple cultures from the variance due to maladjustment within a single culture (Ostroff and Harrison 1999). Bhaskar-Shrinivas et al. (2005) also suggested looking for moderating effect of single versus multiple cultures. Moreover, a clear distinction can be drawn in literature between studies using samples drawn from a single country of expatriation (i.e. host country) and studies using samples drawn from multiple countries of expatriation. Therefore, it seems probable that both kinds of studies can present significantly different results.

Studies were divided into two subgroups: studies with samples drawn from multiple countries of expatriation, and the studies with samples drawn from a single country of expatriation. No direction of the moderating effect, however, was specified a priori for this moderator.

4.2.3.4 Age of the expatriates

Age of the expatriates was also examined for its moderating effect on the relationships between antecedents and expatriate adjustment. Data were divided into two subgroups: the studies based on younger expatriate samples and the studies based on older expatriate samples. Segregation of the expatriate samples into younger and older was based on a median age value of 41.4 years (based on average age of the expatriate samples). Age of the expatriates was examined for its moderating effect because younger and older expatriates may have different attitudes towards the international assignment; and may behave in a different manner to cope with the stress and frustration brought upon them by the new culture and new work role at the host location. For example, younger expatriates may adjust easily to new culture because they are energetic and enthusiastic to explore new culture and are more open to change as their older counterparts. However, no direction of the moderating effect was specified a priori.

4.2.3.5 Length of tenure with the parent organization

The length of tenure with the parent organization was also examined for moderating effect. Organizational tenure was included in analysis because tenure is associated with organizational commitment and can have an effect on adjustment.

Data for tenure of the expatriates with parent organization were not available in all the studies. The studies, for which data were available, were divided into two subgroups according to average tenure length of the expatriate samples: studies relying on samples consisting of expatriates with organizational tenure less than 128 months (median value), and studies relying on samples consisting of expatriates with organizational tenure more than 128 months. No direction of the moderating effect was specified a priori for this moderator.

4.2.3.6 Self versus external measures of predictor and adjustment variables

This moderator was included into analysis because research studies using same source of measurement both for antecedent and criterion variables are prone to having potential problem of common method variance. For example, if in a study, both language ability of an expatriate and his/her performance are measured by the ratings provided by expatriate, the results can be biased. While on the other hand, if expatriate provides rating for his/her language ability and respective supervisor provides rating for his/her job performance, the results are expected to be more conservative and realistic than in the previous case. Due to potential problem of common method variance, it was decided to examine the moderating effect of self versus external measures of assessment of the antecedent and adjustment variables. For this moderator, studies were divided into two subgroups: studies which reported self measures of assessment both for predictor and criterion variables, and the studies which reported external measures of assessment (e.g. supervisor, spouse, etc.) for antecedent or criterion variable. No direction of the moderating effect was specified for this moderator.

4.2.3.7 Host country language – English versus not English

The moderating effect of the language of host country was decided to be examined because of universal nature of the English language. As English is a corporate language in many multinational corporations, it is expected that many middle and top level managers have at least working knowledge of English language. For this moderator, studies were divided into two

subgroups: studies with samples expatriated to English-speaking countries (e.g. USA, Canada, UK, Australia, New Zealand, etc.) and studies with samples expatriated to non-English speaking countries. A direction of the moderating effect is specified a priori for this moderating variable. It is hypothesized that adjustment will be easier in English-speaking countries than in non-English speaking countries. That's why; studies relying on expatriate samples posted in English-speaking countries will reveal higher correlations between relevant antecedents and adjustment as compared to the studies relying on expatriate samples posted in non-English speaking countries.

4.2.3.8 Previous international experience of the expatriates

Previous international experience was also examined for moderating effect. Previous international experience was included in moderator analysis because many authors argue that previous international experience can help expatriates to adjust in new environment because they already have gone through stress and uncertainty associated with being in a new culture. Many studies also have tried to explore the impact of previous international experience on expatriate adjustment and some has found positive effects. Direction of moderating effect is specified a priori for this moderator. It is hypothesized that previous international experience makes adjustment easier; thus, studies examining expatriate samples with longer previous international experience will reveal higher correlation than the studies examining expatriate samples with shorter previous international experience.

Data regarding previous international experience were not available for all the studies. Subgroups were defined on the basis of average length of previous international experience held by the expatriate samples. Studies were divided into studies with the expatriate samples having previous international experience less than 56.25 months (median value) and the studies with expatriate samples having previous international experience more than 56.25 months.

4.2.3.9 Published versus unpublished studies

Publication status of the included studies was also examined for the moderating effect. It is generally considered that studies that report higher or significant correlations are preferred for publication in academic journals. This phenomenon is referred to as publication bias or file drawer problem. Publication bias refers to different treatment of positive results and

negative/non-significant results by researchers or editors of the academic journals. This results in a bias in overall published literature on the specific research stream. According to an estimate, the likelihood of publishing is three times higher for statistically significant results than non-significant results (Dickersin, Chan, Chalmers, Sacks, and Smith 1987). So it is hypothesized that published studies will reveal higher correlations than unpublished studies. The studies were divided into two subgroups; published and unpublished studies to examine this moderator.

4.2.4 Moderator analysis methodology

Studies were divided into subgroups on the basis of above-mentioned moderating variables. For each subgroup, separate meta-analyses were conducted. Then a z-score was calculated to see if true population correlations of both subgroups were significantly different. The 5% critical value for Z is 1.64 for the moderators for which direction of the difference is specified a priori (Hunter and Schmidt 1990). For rest of the moderators (for which no direction of difference is specified a priori), the 5% critical value for Z is 1.96. Moderating effects significant at 10% level are also reported to grasp a thorough picture of the moderating effects.

4.3 Results of Moderator Analysis

For moderator effects, analyses could not be conducted for all the relationships between four antecedent variables and adjustment variables because of the non-availability of sufficient data for some of the relationships. Moreover, moderator results are also reported if only two samples were present in a subgroup, instead of at least three samples as was restricted in main meta-analysis, due to lack of sufficient data. Tables 5 – 13 show the results of moderator analysis. Only significant relationships are reported[9].

4.3.1 Length of the stay at host location

Table 5 presents the results regarding moderating effect of length of the stay. For this moderator, a significant moderating effect was found for following two relationships:

- Cross-cultural training (CCT) to interaction adjustment

[9] For a quick summary of moderator analysis results, see figure 2 on page 71

- Family support & adjustment (FSA) to general adjustment

As stated above, no a priori direction of the moderating effect was specified for this moderator. But it is interesting to note that true score correlation of the studies consisting of expatriate samples with longer duration of stay at the host location (more than 31 months, the median value) was higher than correlation of the studies consisting of expatriate samples with shorter duration of stay for the relationship between FSA to general adjustment. But the effect was in opposite direction for the relationships between CCT to interaction adjustment (i.e. correlation of the expatriate samples with shorter duration was higher than the correlation of the expatriate samples with longer duration).

Table 5: Moderator Results – Length of Stay

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Length of Stay										**Lower**	**Upper**	
CCT to Interaction Adj.	Shorter	5	1230	0.320	0.062	0.003	5.329	0.336	0.064	0.106	0.566	-4.286***
	Longer	5	879	-0.064	0.009	0.006	64.263	-0.069	0.004	-0.158	0.019	
FSA to General Adjustment	Shorter	3	520	0.316	0.042	0.005	11.171	0.393	0.057	0.103	0.683	1.810*
	Longer	9	1446	0.471	0.032	0.004	14.541	0.560	0.037	0.422	0.698	

†Z-score tests were conducted in the following direction: Length of stay: longer stay – shorter stay

Thus, a positive Z-score value indicates that correlations revealed by the studies containing expatriate samples having longer duration of stay at host location are higher than the correlations revealed by the studies containing expatriate samples having shorter duration of stay at host location. A negative Z-score value indicates moderating effect in the opposite direction.

***p < .01 **p < 0.05 *p < 0.10

CCT = Cross-cultural training

FSA = Family support & adjustment

4.3.2 USA versus Non-USA sample origin

The results of the moderating effect of USA versus non-USA sample are reported in table 6. A significant effect of this moderator was found for following relationships:

- Language to general adjustment
- Language to interaction adjustment
- Language to work adjustment
- Cross-cultural training to interaction adjustment
- Family support & adjustment to general adjustment

In all the significant relationships, except FSA to general adjustment, studies based on non-USA sample revealed higher correlation than the studies based on USA sample. For FSA to general adjustment, the moderating effect was in opposite direction i.e. the studies based on USA sample revealed higher correlation than the studies based on non-USA sample.

4.3.3 Multi-country versus single-country of expatriation

Table 7 shows the results of the moderating effect of multi-country versus single-country of expatriation. This moderator showed significant effect for following three relationships:

- Language to interaction adjustment
- Language to work adjustment
- Role ambiguity to general adjustment

For language to interaction and work adjustment relationships; correlations revealed by the studies relying on expatriate samples drawn from a single country of expatriation were higher than the correlations derived from the studies using samples drawn from multiple countries of expatriation. While for the relationship between role ambiguity and general adjustment; moderating effect was in opposite direction, i.e. correlation revealed by the studies using samples drawn from multiple countries of expatriation was higher than the correlation derived from the studies using samples drawn from a single country of expatriation.

Table 6: Moderator Results – USA versus Non-USA Sample

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
USA versus Non-USA Sample										**Lower**	**Upper**	
Language to General Adj.	USA Sample	3	873	0.131	0.000	0.003	2273.463	0.145	0.000	0.130	0.160	1.849*
	Non-USA	8	1117	0.288	0.007	0.006	84.478	0.324	0.001	0.258	0.390	
Language to Interaction Adj.	USA Sample	2	730	0.315	0.007	0.002	32.823	0.331	0.005	0.211	0.451	2.376**
	Non-USA	6	986	0.455	0.009	0.004	44.069	0.516	0.006	0.430	0.603	
Language to Work Adj.	USA Sample	2	730	0.076	0.003	0.003	79.998	0.082	0.001	-0.006	0.170	2.122**
	Non-USA	7	1033	0.238	0.018	0.006	34.373	0.281	0.016	0.165	0.398	
CCT to Interaction Adj.	USA Sample	5	1114	-0.005	0.022	0.005	20.253	-0.006	0.019	-0.143	0.132	4.077***
	Non-USA	5	995	0.345	0.071	0.004	5.622	0.369	0.075	0.118	0.619	
FSA to General Adjustment	USA Sample	6	1223	0.504	0.029	0.003	11.179	0.610	0.037	0.445	0.774	-2.436**
	Non-USA	6	743	0.309	0.032	0.007	21.460	0.373	0.036	0.199	0.547	

†Z-score tests were conducted in the following direction: USA versus Non-USA sample: Non-USA – USA sample

Therefore, a positive Z-score indicates that studies employing non-USA expatriate samples (by nationality) show higher correlation than the studies employing USA expatriate samples (by nationality)

A negative Z-score shows moderating effect in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

CCT = Cross-cultural training

FSA = Family support & adjustment

Table 7: Moderator Results – Multi-Country versus Single-Country of Expatriation

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Multi-Country versus Single-Country of Expatriation										**Lower**	**Upper**	
Language to Interaction Adj	Multi-CTRY	5	1271	0.363	0.008	0.003	37.897	0.394	0.006	0.307	0.480	1.883*
	Single-CTRY	3	445	0.489	0.015	0.004	27.678	0.550	0.013	0.397	0.704	
Language to Work Adjustment	Multi-CTRY	4	1183	0.105	0.004	0.003	94.582	0.118	0.000	0.053	0.183	2.366**
	Single-CTRY	5	580	0.305	0.021	0.007	33.709	0.360	0.019	0.208	0.511	
RA to General Adjustment	Multi-CTRY	2	450	-0.407	0.007	0.003	43.406	-0.482	0.006	-0.621	-0.342	-1.992**
	Single-CTRY	5	645	-0.219	0.011	0.007	65.869	-0.280	0.006	-0.398	-0.163	

†Z-score tests were conducted in the following direction: Multi-country versus single-country: single-country – multi-country

Thus, a positive Z-score shows that studies employing expatriate samples drawn from a single host country show higher correlation than the studies employing expatriate samples drawn from multiple countries of expatriation

A negative Z-score shows a moderating effect in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

RA = Role ambiguity

4.3.4 Age of the expatriates

The results regarding moderating effect of age of the expatriates are reported in table 8. A significant moderating effect of age of the expatriates was found for following relationships:

- Language to interaction adjustment
- Cross-cultural training to general adjustment
- Cross-cultural training to interaction adjustment
- Cross-cultural training to job satisfaction
- Cross-cultural training to performance
- Role ambiguity to work adjustment
- Family support & adjustment to general adjustment

In all the relationships, except for FSA to general adjustment, studies with the younger expatriate samples revealed higher correlation than the studies with the older expatriate samples. The effect was in the opposite direction for the relationship between FSA and general adjustment.

4.3.5 Length of tenure with the parent organization

Table 9 reports the results of moderating effect of tenure length of the expatriates with the parent organization. The data for the length of organizational tenure of the expatriates with the parent organization were not available in all the studies. Given that many studies did not report this information, this moderator was found significant only for two relationships:

- Cross-cultural training to interaction adjustment
- Family support & adjustment to general adjustment

Among the above-mentioned significant relationships, the studies with expatriate samples having longer organizational tenure showed higher correlation than the studies with expatriate samples having shorter tenure for FSA to general adjustment and vice versa for CCT to interaction adjustment.

Table 8: Moderator Results – Age of the Expatriates

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Age of the Expatriates										**Lower**	**Upper**	
Language to Interaction Adj.	Younger	4	707	0.473	0.011	0.003	32.753	0.523	0.008	0.412	0.634	1.674*
	Older	4	1009	0.341	0.007	0.003	44.630	0.387	0.005	0.292	0.483	
CCT to General Adjustment	Younger	5	828	0.155	0.015	0.006	39.517	0.193	0.014	0.059	0.328	1.970**
	Older	10	1850	-0.012	0.011	0.005	48.286	-0.015	0.009	-0.098	0.067	
CCT to Interaction Adj.	Younger	3	732	0.474	0.030	0.002	8.389	0.502	0.030	0.293	0.711	5.861***
	Older	7	1377	-0.008	0.019	0.005	26.403	-0.008	0.016	-0.118	0.102	
CCT to Job Satisfaction	Younger	3	470	0.309	0.005	0.005	117.183	0.366	0.000	0.276	0.457	2.087**
	Older	4	505	0.103	0.011	0.008	72.496	0.128	0.004	0.001	0.254	
CCT to Performance	Younger	2	188	0.325	0.010	0.009	87.949	0.359	0.001	0.208	0.510	3.650***
	Older	3	526	-0.073	0.004	0.006	137.012	-0.077	0.000	-0.154	0.000	
RA to Work Adjustment	Younger	3	475	-0.513	0.002	0.003	208.660	-0.648	0.000	-0.714	-0.582	1.666*
	Older	4	435	-0.411	0.008	0.006	77.641	-0.483	0.003	-0.588	-0.377	
FSA to General Adjustment	Younger	3	511	0.292	0.041	0.005	11.923	0.347	0.050	0.074	0.620	-2.520**
	Older	9	1455	0.479	0.029	0.004	14.926	0.581	0.036	0.445	0.717	

†Z-score tests were conducted in the following direction: Age: younger – older

For this moderator, a positive Z-score indicates that studies employing younger expatriate samples show higher correlations than the studies employing older expatriate samples

While, negative Z-score indicates that studies employing older expatriate samples show higher correlation than the studies employing younger expatriate samples (i.e. in the opposite direction)

***p < .01 **p < 0.05 *p < 0.10

CCT = Cross-cultural training RA = Role ambiguity FSA = Family support & adjustment

Table 9: Moderator Results – Length of Tenure with the Parent Organization

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Tenure with the Parent Organization										**Lower**	**Upper**	
CCT to Interaction Adj.	Shorter Ten.	2	328	0.133	0.030	0.006	19.980	0.139	0.025	-0.111	0.389	-2.096**
	Longer Ten.	3	795	-0.063	0.006	0.004	58.595	-0.067	0.003	-0.163	0.029	
FSA to General Adjustment	Shorter Ten.	2	185	0.322	0.011	0.009	81.867	0.379	0.003	0.209	0.549	2.735***
	Longer Ten.	4	637	0.549	0.049	0.003	7.386	0.677	0.068	0.409	0.945	

†Z-score tests were conducted in the following direction: Length of Tenure: longer tenure – shorter tenure

A positive Z-score, in this case, indicates a higher correlation revealed by studies employing samples consisting of expatriates who have longer tenure with the parent organization than studies employing samples consisting of expatriates who have shorter tenure with the parent organization

A negative Z-score indicates moderating effect in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

CCT = Cross-cultural training

FSA = Family support & adjustment

4.3.6 Self versus external measures of assessment

Table 10 presents the results for this moderating variable. A significant moderating effect was found for the relationships between:

- Family support & adjustment to general adjustment
- Family support & adjustment to interaction adjustment
- Family support & adjustment to work adjustment

In all the significant relationships, correlation of the studies using external measures of assessment was higher than the studies using self measures of assessment.

It can be seen that all the significant moderating effects pertain to the relationships between family support & adjustment and expatriate adjustment. This is because external sources of measurement were available mostly for family adjustment (spouse assessment) and performance (supervisor assessment) only. And, in many cases, enough samples were not available for relationships between antecedents and performance to conduct moderator analysis.

It is worth mentioning that the attention was focused on the source of measurement for the family support & adjustment construct across different studies. In most of the studies, it was measured using same items as for expatriate adjustment excluding items for work adjustment. But in some studies, operationalization was different. Moderating effect of the source of measurement (expatriate versus spouse rating) was examined irrespective of operationalization of the construct.

The results are in contradiction to the concept of common method variance which suggests that same source of measurement both for antecedent and criterion variables tends to inflate the correlations.

4.3.7 Host country language – English versus not English

The results for the moderator host country language – English versus not English are presented in table 11. For this moderator, the direction of the moderating effect was specified a priori; it was hypothesized that studies with expatriate samples expatriated to English-speaking countries will reveal higher correlations than the studies with expatriate samples expatriated to non-English speaking countries. Significant effects for this moderator were found for the following relationships:

- Language to interaction adjustment

- Language to work adjustment
- Role ambiguity to work adjustment

In all three relationships, direction of the difference was same as hypothesized i.e. the research studies with expatriate samples drawn from English-speaking countries of expatriation revealed higher correlations as compared to the studies with expatriate samples drawn from non-English speaking countries. It can be seen that two out of three significant relationships are related to the effect of language. It indicates importance of the language knowledge for adjustment at the host location.

Table 10: Moderator Results – Self versus External Measures of Assessment

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Self versus External Measures of Assessment										**Lower**	**Upper**	
FSA to General Adjustment	Self Rated	8	1300	0.371	0.034	0.005	14.925	0.450	0.041	0.296	0.603	-2.374**
	Other Rated	4	666	0.545	0.030	0.003	11.581	0.657	0.038	0.451	0.862	
FSA to Interaction Adj.	Self Rated	6	1154	0.280	0.012	0.004	39.291	0.317	0.009	0.220	0.414	-3.779***
	Other Rated	4	545	0.583	0.027	0.003	12.376	0.647	0.028	0.469	0.826	
FSA to Work Adjustment	Self Rated	8	1381	0.148	0.011	0.006	50.822	0.172	0.007	0.087	0.257	-1.823*
	Other Rated	6	795	0.319	0.012	0.006	54.115	0.369	0.007	0.269	0.469	

†Z-score tests were conducted in the following direction: Self versus external measures of assessment: self-rated – other-rated

A positive Z-score shows that studies employing self-rated measures reveal higher correlations than the studies employing external measures of assessment

A negative Z-score indicates moderating effect in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

FSA = Family support & adjustment

Table 11: Moderator Results – Host Country Language – English versus Not English

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Host Country Language – English versus Not English										**Lower**	**Upper**	
Language to Interaction Adj.	HCL English	2	258	0.541	0.015	0.004	25.850	0.594	0.013	0.407	0.782	2.080**
	HCL Not Eng.	6	1458	0.370	0.008	0.003	39.820	0.421	0.006	0.339	0.503	
Language to Work Adjustment	HCL English	3	305	0.423	0.010	0.007	64.235	0.483	0.005	0.351	0.615	3.315***
	HCL Not Eng.	6	1458	0.118	0.004	0.004	106.962	0.140	0.000	0.082	0.198	
RA to Work Adjustment	HCL English	3	475	-0.513	0.002	0.003	208.660	-0.648	0.000	-0.714	-0.582	1.666**
	HCL Not Eng.	4	435	-0.411	0.008	0.006	77.641	-0.483	0.003	-0.588	-0.377	

†Z-score tests were conducted in the following direction: HCL – English versus not English: HCL English – HCL not English

Here, a positive Z-score shows that studies with samples of expatriates posted in English-speaking countries show higher correlation than the studies with expatriate samples posted in non-English speaking countries

A negative Z-score reveals that moderating effect is in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

RA = Role ambiguity

4.3.8 Previous international experience of the expatriates

Table 12 shows the results regarding moderating effect of the previous international experience of the expatriates. Data for this moderator were also not available in all the primary research studies. Direction of the moderating effect was specified a priori and it was hypothesized that the studies examining expatriate samples having longer previous international experience will reveal higher correlation than the studies examining expatriate samples with shorter previous international experience. Given the fact that only a few relationships were examined for this moderator due to lack of sufficient data, only one relationship was significantly affected by this moderator:

- Cross-cultural training to interaction adjustment

For this relationship, the studies with expatriate samples having longer previous international experience revealed higher correlation than the studies with expatriate samples having shorter previous international experience. The moderating effect was, therefore, in expected direction.

4.3.9 Published versus unpublished studies

The results of the moderating effect of publication status are reported in table 13. Also for this moderator, the direction of the moderating effect was specified a priori and it was hypothesized that published research studies will reveal higher correlations than unpublished studies. Significant moderating effects were found for the following relationships:

- Cross-cultural training to interaction adjustment
- Cross-cultural training to job satisfaction
- Cross-cultural training to performance

In all three significant relationships, the moderating effect was in hypothesized direction, i.e. published studies had higher correlations between antecedents and adjustment as compared to the unpublished studies.

A summary of the moderator analysis results is presented in figure 2.

Table 12: Moderator Results – Previous International Experience

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Previous International Experience										**Lower**	**Upper**	
CCT to Interaction Adj.	Shorter	2	382	-0.062	0.001	0.005	411.922	-0.065	0.000	-0.117	-0.013	1.862**
	Longer	2	541	0.106	0.016	0.004	22.243	0.110	0.013	-0.074	0.295	

†Z-score tests were conducted in the following direction: Previous international experience: longer experience – shorter experience

Thus, a positive Z-score indicates that studies using expatriate samples with longer previous international experience reveal higher correlation than studies using expatriate samples with shorter previous international experience

On the other hand, a negative Z-score shows moderating effect in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

CCT = Cross-cultural training

Table 13: Moderator Results – Published versus Unpublished Studies

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Published versus Unpublished Studies										**Lower**	**Upper**	
CCT to Interaction Adj.	Published	8	1727	0.209	0.079	0.004	5.416	0.222	0.083	0.015	0.430	2.951***
	Unpublished	2	382	-0.062	0.001	0.005	411.922	-0.065	0.000	-0.117	-0.013	
CCT to Job Satisfaction	Published	4	588	0.280	0.007	0.006	84.346	0.332	0.001	0.235	0.429	1.959**
	Unpublished	3	387	0.084	0.013	0.008	61.406	0.104	0.007	-0.053	0.262	
CCT to Performance	Published	3	270	0.247	0.021	0.010	47.664	0.265	0.012	0.089	0.440	3.083***
	Unpublished	2	444	-0.099	0.001	0.004	729.258	-0.105	0.000	-0.141	-0.069	

†Z-score tests were conducted in following direction: Published versus unpublished studies: published – unpublished

In this case, a positive Z-score shows that published studies reveal higher correlation than the unpublished studies

Again, a negative Z-score reveals the effect in the opposite direction i.e. unpublished studies show higher correlation than the published studies

***p < .01 **p < 0.05 *p < 0.10

CCT = Cross-cultural training

Figure 2: Summary of Moderator Analysis Results

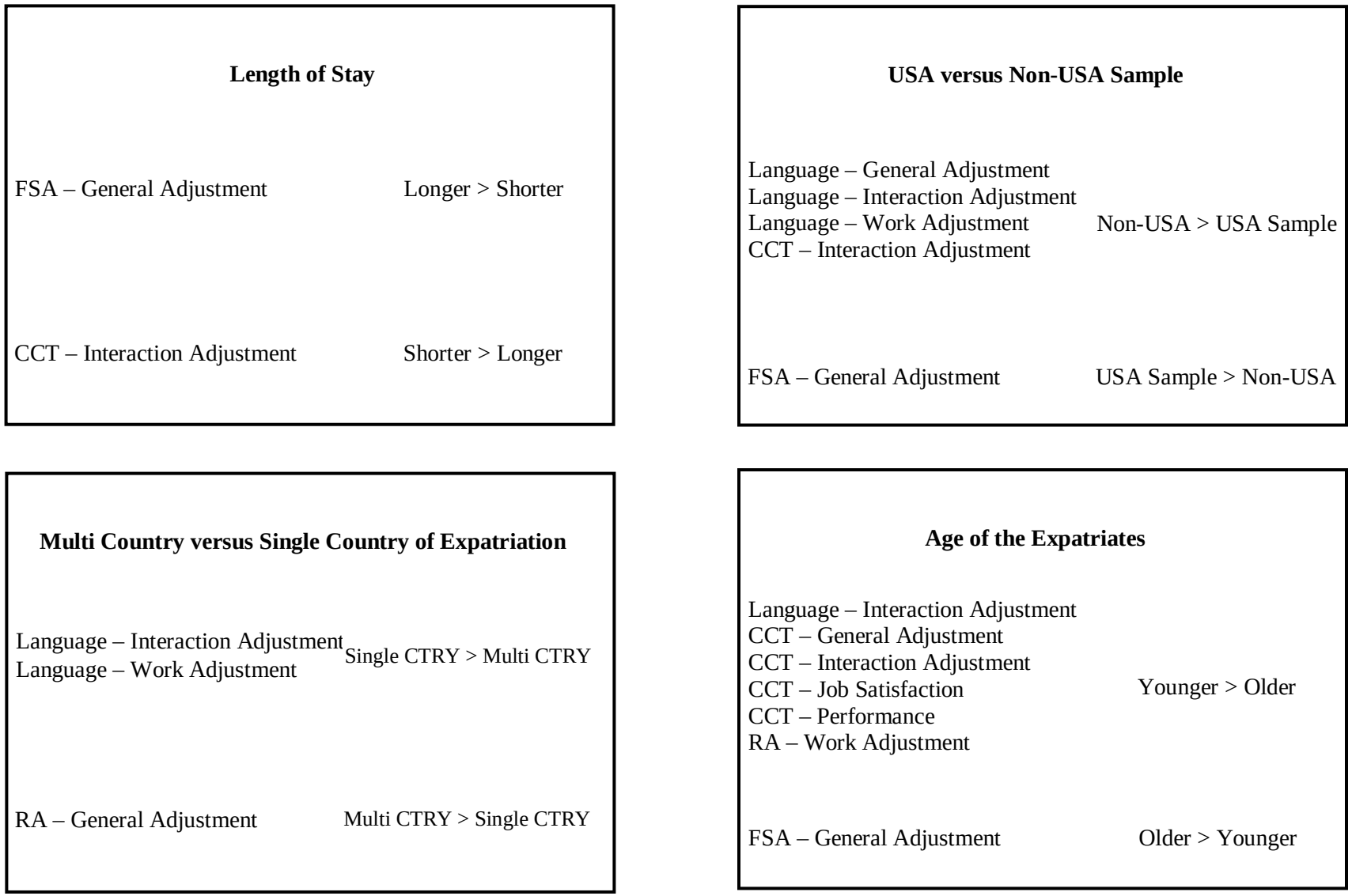


Figure 2: Continued

Tenure with the Parent Organization

FSA – General Adjustment	Longer > Shorter
CCT – Interaction Adjustment	Shorter > Longer

Previous International Experience
Direction specified a priori – Longer > Shorter

CCT – Interaction Adjustment	Longer > Shorter

Host Country Language – English versus Not English
Direction specified a priori – HCL Eng > HCL Not Eng

Language – Interaction Adjustment Language – Work Adjustment RA – Work Adjustment	HCL Eng > HCL Not Eng

Self versus External Measures of Assessment

FSA – General Adjustment FSA – Interaction Adjustment FSA – Work Adjustment	Other Rated > Self Rated

Published versus Unpublished Studies
Direction specified a priori – Published > Unpublished

CCT – Interaction Adjustment CCT – Job Satisfaction CCT – Performance	Published > Unpublished

FSA = Family Support & Adjustment
CCT = Cross-Cultural Training
RA = Role Ambiguity

Chapter 5
Meta-Analysis between Expatriate Adjustment and Outcomes of the Adjustment

5.1 Effects of Expatriate Adjustment on Outcomes of the Adjustment

After discussing and quantitatively analyzing the effects of certain antecedents on expatriate adjustment and adjustment outcomes; attention is now focused on the effects of expatriate adjustment on the consequences or outcomes of the adjustment. The importance of outcomes of the adjustment emerges from their role in shaping the eventual conclusion of the international assignment. By understanding the effects of antecedents and adjustment on outcomes of adjustment, organizations can devise human resource management policies in such ways to minimize expatriate turnover and assignment failure and to get maximum return on investment.

International assignments can be a considerable source of stress and anxiety. The negative consequences of stress on behaviors and attitudes of the employees have been recognized in stress literature. They include negative effects on job satisfaction and organizational commitment; and may also lead to withdrawal intentions (Takeuchi et al. 2002). Overcoming the stress and anxiety, thus, can facilitate getting rid of these negative consequences. Adjustment, therefore, is related to further outcomes on job and organizational level.

According to socialization literature, poor knowledge about appropriate job behaviors is a reason for uncertainty that is faced by newcomer employees upon entrance into an organization (Tubre and Collins 2000). On gaining knowledge and familiarity about new work role, the employees are able to reduce uncertainty. It is expected that this process also holds in international environment. Expatriates face higher levels of uncertainty upon entering into international assignment. They need to be adjusted to the new work role and environment before they can exhibit good performance and manage effectively.

As mentioned earlier, following outcomes of expatriate adjustment are analyzed in this research. They are, nevertheless, most important outcomes of expatriate adjustment.

- Job satisfaction
- Job performance
- Intentions to quit
- Organizational commitment

Below, theoretical background and literature review regarding relationships between expatriate adjustment and outcomes of adjustment; and between outcomes of adjustment themselves are presented and relevant hypotheses are formulated:

5.1.1 Expatriate adjustment to job satisfaction

Previous research has found positive relationship of work adjustment (work-related facet of adjustment) with job satisfaction (work-related outcome of adjustment). In addition to work adjustment; general and interaction adjustment, though non-work related facets of adjustment, can also have positive impact on job satisfaction.

Maladjustment or failure of an expatriate in adjusting to general living conditions at the host location can result in dissatisfaction from the job. For instance, on facing difficulties in adjusting to general environment, expatriates may feel stress in general non-work life. This stress can stem from poor housing conditions, insufficient security, problems with children's education, poor health facilities, etc. This may result in frustration or anger towards the host location due to mismatch of quality of life between what is experienced actually and what was expected. This feeling of frustration and anger can also intrude into work life and may create dissatisfaction with work thus negatively affecting job satisfaction of an expatriate. On the other hand, a comfortable adjustment with the host country environment may lead to positive perception towards host country and can subsequently result in satisfaction with the job activity.

Similarly, interaction adjustment can also affect job satisfaction both directly and indirectly. Indirectly in the case when expatriates find it difficult to communicate with host country nationals, they can feel anger and frustration and these feelings of frustration may lead to dissatisfaction regarding job activities. Poor adjustment to interacting with host nationals can also affect job satisfaction directly when it comes to communicating with the co-workers and the

local customers. If expatriates are unable to communicate with the local employees, they may fail to get necessary support for performing specific tasks. Similarly, expatriates may also have to communicate with the local customers (especially in sales-intensive or marketing jobs) failing which business may suffer adversely. These troubles in interacting with the host nationals can lead to poor job satisfaction.

International transfer is equivalent to entering into a new work role. After adjustment to this new role at the host organization; they can get satisfaction from the experience of working in new role and in new (host) unit (Toh 2003). Therefore, if the expatriate is adjusted to the new role, he/she will be able to experience better job satisfaction.

5.1.1.1 Previous research on the effects of expatriate adjustment on job satisfaction

Previous empirical research has found positive and significant relationship of expatriate adjustment with job satisfaction (see Wasson 1997; Stierle et al. 2002; Lee 2002; Aumann 2007; Liu and Lee 2008; Qin and Baruch 2010). Also for separate facets of adjustment; general, interaction, and work adjustment has shown positive effects on job satisfaction[10].

Although empirical evidence exists regarding the positive effects of expatriate adjustment on job satisfaction; many empirical studies, however, fail to find a significant effect. For example, Downes (1997); and Puck, Mohr, and Rygl (2008) could not find a significant impact of expatriate adjustment on job satisfaction. Shaffer and Harrison (1998) found significant impact only of work adjustment on job satisfaction, but not of general and interaction adjustment. Toh (2003) examined the effects of all three facets of expatriate adjustment on job satisfaction; she found a significant effect only for work adjustment. Kim and Slocum Jr. (2008) found a significant effect of interaction adjustment on job satisfaction, but not of work adjustment. Peltokorpi (2008) found significant relationship of general adjustment and work adjustment with job satisfaction but not of interaction adjustment.

In the light of the theoretical arguments and relevant literature, following hypothesis is developed regarding effect of the expatriate adjustment on expatriate job satisfaction:

[10] For the effects of general adjustment on job satisfaction (see Takeuchi et al. 2002; Siers 2007; Palthe 2008; Qin and Baruch 2010)
For the effects of interaction adjustment on job satisfaction (see Siers 2007; Palthe 2008; Kim and Slocum Jr. 2008)
For the effects of work adjustment on job satisfaction (see Aryee and Stone 1996; Takeuchi et al. 2002; Breiden, Mohr, and Mirza 2006; Palthe 2008)

Hypothesis 5: Expatriate adjustment (general adjustment, interaction adjustment, work adjustment) has a positive effect on expatriate job satisfaction.

5.1.2 Expatriate adjustment to job performance

Previous research has proposed that stressful circumstances, for instance adjusting in a new and strange culture, can lead to psychological stress. Subsequently, this stress may result in poor work performance (Shay and Baack 2006). Cohen (1988) suggested that stress can result in cognitive fatigue that, in turn, reduces the energy and motivation that is necessary to effectively performing the job tasks.

Similar propositions have been made in the international literature where stress in an international environment is proposed, and empirically found, to be associated with lack of adequate performance. Caligiuri (2000) argued that stress arising because of maladjustment can create withdrawal behaviors that subsequently may inhibit performance. On the other hand, stress is reduced through successful cross-cultural adjustment; and it influences performance positively by leaving expatriate with higher levels of energy to focus on job tasks (Selmer 1999).

In expatriate assignments, that demand a great deal of interpersonal relationships with locals, general and interaction adjustment may have positive effects on expatriate job performance. According to spillover theory (Bhagat 1983), problems in adjustment in non-work domains may result in stress for an expatriate and this stress subsequently negatively affects work attitudes and behaviors. Thus, failure in adjustment in non-work domains may spillover to work-related adjustment and performance. Previous empirical research has confirmed spillover effects. With regard to expatriate performance, previous research has shown positive effects of general and interaction adjustment on expatriate work performance.

Expatriate performance may be influenced by interaction adjustment because interacting with local employees may constitute a major part of the assignment and thus may influence performance. Particularly, in jobs involving interaction with the host country nationals; interaction adjustment may affect performance positively. In these cases, poor interaction with local employees and/or customers directly compromises the work responsibilities and may count for poor performance.

Socialization literature indicates that adjustment to the new work role may result in better performance (Takeuchi, Wang, and Marinova 2005). It is, thus, highly probable that better

adjusted expatriates can execute job tasks more efficiently. Harrison and Shaffer (2005) argue that maladjusted expatriates have fewer resources left with them to allocate to performing the job tasks. Maladjustment, thus leads to poor performance. In domestic literature; Motowidlo, Packard, and Manning (1986) found that occupational stress negatively affected the job performance.

Aycan (1997) noted that performance and commitment of the expatriates depends on the level of satisfaction with their lives in the host country's culture. Those expatriate who are well adjusted to the work atmosphere are expected to perform better in their job tasks. However, as explained earlier, it is also important for the expatriates to be well adjusted in general and interaction environment to be able to perform better in international and managerial aspects of the job.

Segregation of job performance construct into task and contextual performance has been explained already. Moreover, it has been explained earlier that these two facets of performance, though drawn from domestic literature, are quite appropriate also in international context. Task performance is related to core competencies of a job and contextual performance refers to the broader environment around the technical core (Motowidlo and Van Scotter 1994). Because of different nature of both facets of expatriate job performance; expatriate work adjustment is expected to have stronger effect on task performance. On the other hand, non-work related facets of expatriate adjustment (i.e. general and interaction adjustment) are expected to have stronger effect on contextual performance. This is because adjustment to work is mostly related to adjustment to the core responsibilities of a job; and that's why, it will correlate strongly with the task performance. On the other hand, adjustment to non-work life provides a comfortable environment for work and, therefore, is expected to correlate more strongly with the contextual performance.

5.1.2.1 Previous research on the effects of expatriate adjustment on job performance

Previous research has found positive impact of expatriate adjustment on expatriate job performance (see Caligiuri 1997; Stierle et al. 2002; Furuya, Stevens, Bird, Oddou, and Mendenhall 2009). For separate facets of adjustment, empirical research has found positive effects of general adjustment, interaction adjustment, and work adjustment on expatriate job

performance[11]. Relatively stronger evidence exists regarding the effect of work adjustment on expatriate job performance; while general and interaction adjustment show weak to moderate effects on job performance. This is because of work-related nature of both work adjustment and job performance.

In contrast to above-mentioned research evidence, many empirical studies did not succeed in establishing a relationship. Caliguiri (1997) observed a positive effect of general adjustment on expatriate job performance (self-rated); but not on job performance (leader-rated). Takeuchi et al. (2005) studied the effects of general adjustment and work adjustment on performance but found significant relationship only between work adjustment and performance. Harrison and Shaffer (2005) found a significant effect of general adjustment and work adjustment on job performance but not of interaction adjustment.

Shay and Baack (2006) found a significant relationship only of work adjustment with job performance, but not of general and interaction adjustment. Turner (2006) tested the effects of general, interaction, and work adjustment on job performance and found significant effects only for work adjustment, but not for general and interaction adjustment. Sri Ramalu, Rose, Kumar, and Uli (2010) found significant effects of interaction adjustment and work adjustment on job performance but not of general adjustment.

Some researchers also have analyzed expatriate job performance as separate facets of task performance and contextual performance. It reveals some interesting results too. Kraimer et al. (2001) examined impact of general adjustment and interaction adjustment on contextual performance; and of work adjustment on both task and contextual performance. They found a significant impact of interaction adjustment on contextual performance; and of work adjustment on task performance. They did not find significant effects of general adjustment and work adjustment on contextual performance. Toh (2003) found a positive relationship of general adjustment with task and contextual performance; interaction adjustment with contextual performance; and work adjustment with task and contextual performance.

[11] For the effects of general adjustment on performance (see Wang and Takeuchi 2007; Kim 2008; Lee and Sukoco 2010)
For the effects of interaction adjustment on performance (see Kim 2008; Wang and Takeuchi 2007; Gabel et al. 2005)
For the effects of work adjustment on performance (see Kim and Slocum Jr. 2008; Wang and Takeuchi 2007)

Liu and Shaffer (2005) found significant effects of interaction adjustment and work adjustment on task performance; and of work adjustment on contextual performance. General adjustment did not show any significant effects.

It can be seen from brief review of the empirical literature that work adjustment is inclined to have effects on task performance while general and interaction adjustment tend to have effects on contextual performance. This is because task performance is related to the core competencies of the job and is expected to be affected by work adjustment. Contextual performance relates to the working environment and that's why, relates to general and interaction adjustment.

I analyzed the effects of expatriate adjustment on expatriate job performance as a composite measure as well as on task performance and contextual performance separately. It is expected that all three facets of adjustment will be affect overall performance positively. Thus, following hypotheses are developed:

Hypothesis 6a: Expatriate general adjustment has a positive effect on contextual performance and overall performance.

Hypothesis 6b: Expatriate interaction adjustment has a positive effect on contextual performance and overall performance.

Hypothesis 6c: Expatriate work adjustment has a positive effect on task performance and overall performance.

5.1.3 Expatriate adjustment to intentions to quit

Maladjustment of the expatriates at the host location may have an important consequence for the organizations; and that is an expatriate's intentions to quitting the international assignment and return back earlier than the scheduled termination of the assignment (Takeuchi, Yun, and Russell 2002). The maladjusted expatriates may also have intentions to quitting the parent organization resulting in expatriate turnover. This indicates a failure of the international assignment.

Anxiety and frustration related to the problems arising in the new culture and new work role may manifest themselves through withdrawal intentions. Expatriates may respond to the

maladjustment by psychologically withdrawing from the assignment (Harrison and Shaffer 2005). The efforts to cope with negative emotional states, emerging as a result of maladjustment, may motivate expatriates to assess the possibility of quitting the job and returning home to reduce the negative sentiments (Siers 2007). Thus, it can be expected that adjustment will be related negatively to the intentions to quit or turnover cognitions.

Difficulties in accessing actual turnover data prompts researchers to use intentions to quit or turnover for the purpose. Domestic turnover research proposes that leaving a job (or having intentions to leave) may be a reaction to negative sentiments or an effort by individuals to reduce sources of negative emotional responses to their environment (Bhaskar-Shrinivas et al. 2005). In expatriation context, the negative inputs emerging from maladjustment can be responded by redirecting attention and efforts away from the existing position (Harrison and Shaffer 2005). Maladjustment in an international environment can stem either from work or non-work environment. Intentions to quit, therefore, can arise from either work-related or non-work related failure of adjustment. Failures in adjusting to the general everyday life can spillover into the work life. In extreme case, expatriate may decide to quit the assignment and go back home to eliminate the problems related to adjusting into a new culture. Maladjustment regarding interaction with the locals both in work and non-work life may also have similar implications. Failure to interact sufficiently in everyday life creates feelings of anxiety and frustration and may prompt expatriate to consider the option of quitting. Failure to interact sufficiently with local employees and/or customers may have damaging effects on the job responsibilities and may result in withdrawal cognitions. Similarly, failing to adjust to new work role may directly induce withdrawal intentions in the minds of the expatriates.

5.1.3.1 Previous research on the effects of expatriate adjustment on intentions to quit

Empirical research has found negative effects of expatriate adjustment on expatriate intentions to quit i.e. better adjusted expatriates are less likely to have intentions to quit (see Caligiuri and Tung 1999; Stierle et al. 2002). Three separate facets of adjustment also have been found to have

negative impact on intentions to quit. Expatriate intentions to quit have been found to be negatively affected by general adjustment, interaction adjustment, and work adjustment[12].

In contrast to a significant effect of expatriate adjustment on expatriate intentions to quit, many previous studies failed to establish an effect. Florkowski and Fogel (1999) examined the effect of general adjustment and interaction adjustment on expatriate's desire of early return but did not find any significant effect. Siers (2007), while assessing the relationship of all three facets of adjustment with turnover cognitions, did not find any significant effects. Toh (2003) also was unable to find any significant effect of general, interaction, and work adjustment on withdrawal intentions. Aumann (2007), too, could not find any significant effect of expatriate adjustment on intentions to quit.

Harrison and Shaffer (2005) found a significant negative effect of work adjustment and general adjustment on withdrawal cognitions but not of interaction adjustment. Kim and Slocum Jr. (2008) did not find significant effect of either interaction adjustment or work adjustment on premature return intentions.

Following hypothesis, therefore, is developed concerning the relationship between adjustment and intentions to quit:

Hypothesis 7: Expatriate adjustment (general adjustment, interaction adjustment, work adjustment) has a negative effect on expatriate intentions to quit.

5.1.4 Expatriate adjustment to organizational commitment

The relationship between adjustment and organizational commitment can be explained through an investment perspective. As investments made in organizations can strengthen commitment with the organization; in the same way, the investments made in adjusting and integrating in an international environment will facilitate work-related commitment (Gregersen and Black 1992). As explained earlier, organizational commitment in an international context can have two

[12] For the effects of general adjustment on intentions to quit (see Caligiuri 1997; Takeuchi, Yun, and Russell 2002; Shaffer, Harrison, Gregersen, Black, and Ferzandi 2006; Wang and Takeuchi 2007)
For the effects of interaction adjustment on intentions to quit (see Takeuchi, Yun, and Russell 2002; Shaffer et al. 2006; Wang and Takeuchi 2007)
For the effects of work adjustment on intentions to quit (see Takeuchi, Yun, and Russell 2002; Gabel et al. 2005; Shaffer et al. 2006; Wang and Takeuchi 2007)

different foci: commitment to the parent company and commitment to the foreign company (local operation at the host location). Personal investments made for cross-cultural adjustment e.g. learning the foreign language, learning host country cultural norms, etc., could facilitate commitment with the local organization (Gregersen and Black 1992). But they are not expected to have greater impact on commitment with the parent organization because these investments are related to mastering the skills relevant to the host location only. However, personal investments made to adjusting in international culture may have some small effect on organizational commitment to the parent company. This effect will be smaller because investments made to cope with unfamiliar environment at host location will not have much value regarding the parent company. Theoretically, Porter, Lawler, and Hackman (1975) argue that proximal factors show a significant impact on organizational commitment as compared to the distal factors.

Expatriates usually have to invest time and energy in things related to daily general living conditions, for instance housing arrangements, health care, children's education, finding familiar foods, etc. The more the expatriate is adjusted to general living conditions at the host location, the more he/she has invested in adjusting and more he/she is expected to be committed to the local organization. Social integration has been found to have effects on organizational commitment in domestic literature (Gregersen and Black 1992). While applying these domestic findings into cross-cultural context; it can be suggested that more the expatriates integrate socially with local people, more they adjust to the respective culture and more they are committed to the local organization (Gregersen and Black 1992). Again, in domestic literature, a meta-analysis by Bauer, Bodner, Erdogan, Truxillo, and Tucker (2007) found positive relationship of new comer's adjustment with organizational commitment and performance.

As far as commitment to the parent organization is concerned, if expatriates are better adjusted at host location due, although partly, to the supportive functions of the organization; they will develop higher levels of organizational commitment to the parent organization (Takeuchi, Wang, Marinova, and Yao 2009). These supportive functions may include, but not limited to, generous financial benefits, help in arranging appropriate accommodation, help in arranging health insurance policy, delivering cross-cultural and language training, etc.

Adjustment at host location makes expatriates feel happy and confident, strengthens their attachment with the organization, and stimulates them to exercise more effort in their jobs and perform better. As a result, they want to stay with the organization and become better committed.

5.1.4.1 Previous research on the effects of expatriate adjustment on organizational commitment

A few studies have found significant positive effect of expatriate adjustment on expatriate organizational commitment (see Puck, Mohr, and Rygl 2008; Qin and Baruch 2010). All three facets of expatriate adjustment have also been shown to be having positive effects on organizational commitment. General adjustment has been found to have positive effect on expatriate organizational commitment (see Chen and Chiu 2009). Moreover, interaction adjustment (see Chen and Chiu 2009); and work adjustment (see Chen and Chiu 2009; Takeuchi et al. 2009) also have been found to have positive effects on organizational commitment.

Some researchers also have analyzed expatriate organizational commitment with reference to different focus of commitment to the parent company (OCP) and commitment to the foreign operation (OCF). For example, Gregersen and Black (1992) examined effects of expatriate adjustment on OCP and OCF separately. They found a significant positive effect of general adjustment on OCP as well as on OCF, but they could not find any significant effect of interaction adjustment. Kraimer (1999) found a positive impact of general and work adjustment on OCF, but not on OCP.

In this research, the above-mentioned two dimensions of organizational commitment are used: organizational commitment to the parent company and organizational commitment to the foreign company (foreign operation or subsidiary of the parent organization at the host location). In addition to testing the impact of expatriate adjustment on expatriate organizational commitment as a composite measure; the impact is also analyzed on separate measures of OCP and OCF. Following hypotheses are developed regarding effects of expatriate adjustment on OCP and OCF.

Hypothesis 8a: Expatriate adjustment (general adjustment, interaction adjustment, work adjustment) has a positive effect on organizational commitment to the parent company.

Hypothesis 8b: Expatriate adjustment (general adjustment, interaction adjustment, work adjustment) has a positive effect on organizational commitment to the foreign company.

Although, expatriate adjustment is hypothesized to have a positive effect both on OCP and OCF; in the light of relevant theoretical literature, it is expected that expatriate adjustment will have a stronger effect on OCF as compared to OCP.

5.1.5 Expatriate job satisfaction to intentions to quit

The domestic literature has found a negative effect of job satisfaction on employee's intentions to quit[13]. In expatriate literature, some researchers have found a negative relationship between job satisfaction and intentions to quit. Empirical research has not been consistent about the relationship of job satisfaction with turnover intentions and has shown mixed results.

Hunt, Wood, and Chonko (1989) explained the relationship between job satisfaction and withdrawal intentions through the perspective of relationship between individual and the organization as an exchange. This exchange relationship is a two-way relationship where individual comes to the organization with his/her needs that may be extrinsic (e.g. pay, monetary benefits) or intrinsic (e.g. job diversity, freedom, etc.). And the organization has its own needs e.g. employees who can work for the fulfillment of the organizational goals (Bhuian and Al-Jabri 1996). So organizations satisfy employee's needs and employees work to accomplish organizational goals. If organizations fulfill employee's needs in a satisfactory way and provide comfortable environment for such an exchange, the likelihood of employees having lower turnover tendencies is expected to increase. So it can be expected that if the level of job satisfaction is higher, the turnover tendencies will be lower.

Dissatisfaction from the job at host location may result in increased intentions to quit. Expatriates who are dissatisfied from the new job at the foreign location will tempt to physically or psychologically withdrawing from the job. Physical withdrawal, in many cases, is not possible due to self-esteem and potential career threats. Expatriates dissatisfied from their jobs will start thinking about quitting and looking for alternative options which may include quitting the current job as well as the host location and going back to the home country. On the other hand,

[13] See meta-analysis by Hom, Caranikas-Walker, Prussia, and Griffeth (1992)

expatriates who are satisfied with their jobs at host location will feel pleased and committed to stay at the host location. They will be willing to exert more effort in their job and to complete it. Therefore, it can be expected that job satisfaction will affect intentions to quit negatively.

5.1.5.1 Previous research on the effects of expatriate job satisfaction on intentions to quit

Previous empirical research has found negative effects of expatriate job satisfaction on intentions to quit in some studies. For example, Shaffer and Harrison (1998) found that job satisfaction was negatively related to withdrawal cognitions. Naumann et al. (2000) found a negative relationship of job satisfaction with propensity to leave. Shaffer, Harrison, Gilley, and Luk (2001) found a negative effect of job satisfaction on assignment withdrawal cognitions. Takeuchi et al. (2002) found intentions to return early to be negatively affected by job satisfaction. Siers (2007) examined the effect of job satisfaction on turnover cognitions as a mediating variable between general adjustment and turnover cognitions and found a significant negative effect.

Nicholls, Rothstein, and Bourne (2002) examined the effect of job satisfaction on assignment turnover intentions and organization turnover intentions. They found a significant negative effect of job satisfaction on assignment turnover intentions but not on organization turnover intentions.

Some studies found a non-significant effect of job satisfaction on intentions to quit. Black and Gregersen (1990) did not find a significant effect of job satisfaction on intent to leave. Kim and Slocum Jr. (2008) also could not find a significant effect of expatriate job satisfaction on expatriate's premature return intentions.

Following hypothesis is formulated about relationship between job satisfaction and intentions to quit:

Hypothesis 9: Expatriate job satisfaction has a negative effect on expatriate intentions to quit.

5.1.6 Expatriate job satisfaction to organizational commitment

The causal direction of the relationship between job satisfaction and organizational commitment has been somewhat a debatable issue in the domestic organizational commitment literature. Steers (1977); and Stevens, Beyer, and Trice (1978) propose satisfaction as being a predictor of commitment. Curry, Wakefield, Price, and Mueller (1986) found no relationship; and Williams

and Hazer (1986) found strong interactive effects between these two variables. However, deducing the causal direction between satisfaction and commitment was difficult because research largely relied on cross-sectional research design. Farkas and Tetrick (1989) later conducted research on the basis of a longitudinal design. They again found strong interactive effects and concluded that satisfaction and commitment show different relationships over different periods of time; and they may be 'either cyclically or reciprocally related' (Farkas and Tetrick 1989, p. 855).

Elangovan (2001) conducted a structural equation modeling to study the causal relationships among stress, satisfaction, commitment, and turnover intentions. The author found strong causal links between the two variables with satisfaction leading to commitment.

Researchers who support that job satisfaction leads to commitment argue that employee's orientation towards a job precedes an employee's orientation towards the entire organization. These researchers also assume that change in working conditions leads to direct and immediate change in the level of job satisfaction (Currivan 1999). Some researchers, on the other hand, believe that commitment precedes job satisfaction. The argument behind this direction of relationship states that commitment precedes satisfaction and satisfaction levels are adjusted according to the existing levels of commitment (Currivan 1999).

In essence, theoretical and empirical literature mostly supports antecedent nature of job satisfaction in relation to the organizational commitment as concluded by Currivan (1999) 'the dominant view in the literature assumes that satisfaction causes commitment' (p. 498).

Expatriate literature has mostly supported job satisfaction as an antecedent to organizational commitment.

5.1.6.1 Previous research on the effects of expatriate job satisfaction on organizational commitment:

Some findings from the expatriate literature are presented below.

Yavas and Bodur (1999); and Shaffer et al. (2006) found a significant effect of expatriate job satisfaction on OCP as well as on OCF. Yousaf (2000) found affective, continuance, and normative commitment being positively influenced by job satisfaction.

Liu and Norcio (2008) found a significant positive effect of intrinsic and extrinsic job satisfaction on affective and normative commitment, but not on continuance commitment.

Bhuian and Menguc (2002) found the relationship in opposite causal direction i.e. organizational commitment affected job satisfaction. Qin and Baruch (2010) also found causal direction of relationship with organizational commitment preceding job satisfaction.

I hold the common causal direction of relationship between the two variables as supported in literature to a greater extent i.e. job satisfaction precedes organizational commitment. Following hypothesis is, therefore, formulated:

Hypothesis 10: Expatriate job satisfaction has a positive effect on expatriate organizational commitment.

5.1.7 Expatriate organizational commitment to intentions to quit

Organizational commitment may have a negative effect on expatriate's intentions to quitting the assignment. Acceptance of an international assignment may show high levels of the organizational commitment on the part of the expatriate employee. High expatriate turnover rates, however, show that commitment to the parent organization has decreased and is not sufficient for retention of the expatriate (Shaffer et al. 2006). Problems at host location, whether job related or family related, may create dissatisfaction from the job and general life and can affect organizational commitment negatively. As a result of declining organizational commitment, an expatriate may start withdrawing mentally or physically from the job and/or the organization. Consequently, the expatriate may lose interest in job and may perform poorly and may decide to return prematurely or quit the organization.

5.1.7.1 Previous research on the effects of expatriate organizational commitment on intentions to quit

Previous research has found mixed results regarding the effects of organizational commitment on intentions to quit. Some studies have found significant negative effects while some have not.

Naumann et al. (2000) found negative effect of organizational commitment on propensity to leave.

Nicholls et al. (2002) found significant negative effect of affective commitment on organizational turnover intention but not on assignment turnover intention. Shaffer and Harrison (1998) observed a negative significant effect only of normative commitment on withdrawal

cognitions, but not of affective and continuance commitment. Shaffer et al. (2001) examined the effect of affective commitment and normative commitment on assignment withdrawal cognitions. They found significant negative impact only of affective commitment but not of normative commitment. Florkowski and Fogel (1999) tested the effects of commitment to the parent company and commitment to the host unit on expatriate's desire to return early but did not find any significant effect.

In the line of the theoretical arguments and previous research, following hypothesis is developed:

Hypothesis 11: Expatriate organizational commitment has a negative effect on expatriate intentions to quit.

5.1.8 Expatriate organizational commitment to job performance

Identification and attachment with the organization may have a positive effect on job performance. Better committed employees are aligned with the organizational goals; and tend to work hard and perform better to achieve these goals. Takeuchi et al. (2009) argue that better committed expatriates are attached and integrated with the organizational goals; and resultantly they tend to perform well.

According to social exchange perspective, as explained earlier, better adjusted expatriates who attribute their adjustment to the support of the parent organization will exhibit higher levels of attachment and commitment with the parent organization. These expatriates tend to performing better in return of the organizational support activities (Takeuchi et al. 2009).

The link between affective commitment and performance can be theoretically explained with a motivational argument. The committed employees are expected to work harder and in line with the organizational goals than those who are less committed (Shaw, Delery, and Abdulla 2003). This is because they are better motivated because of their attachment with the organization. Qin and Baruch (2010), however, point out that commitment generally has weak relationship with performance.

5.1.8.1 Previous research on the effects of expatriate organizational commitment on job performance

Previous research has found a positive effect of organizational commitment on performance and some studies also have found non-significant effects.

Kraimer and Wayne (2004) hypothesized that organizational commitment to the parent company (OCP) will affect task performance and organizational commitment to the foreign facility (OCF) will affect contextual performance. They found significant positive effect of OCF on contextual performance; they, however, could not find significant relationship between OCP and task performance. Takeuchi et al. (2009); and Yousef (2000) found significant positive effects of commitment on job performance.

Shaw et al (2003); and Qin and Baruch (2010) did not find significant relationship of organizational commitment with performance.

Following hypothesis is developed regarding relationship between organizational commitment and expatriate job performance:

Hypothesis 12: Expatriate organizational commitment has a positive effect on expatriate job performance.

5.2 Results of Meta-Analysis between Adjustment and Outcomes

In the following pages, the results are reported for meta-analyses between primary indicators of expatriate adjustment and outcomes of the adjustment. The results are reported for each of the three primary adjustment facets: general adjustment, interaction adjustment, and work adjustment with all four outcomes of adjustment: job satisfaction, performance, intentions to quit, and organizational commitment. Respective results are reported in tables 12 – 19.

5.2.1 Expatriate adjustment to job satisfaction (Hypothesis 5)

The results of meta-analysis for the effects of expatriate adjustment on expatriate job satisfaction are reported in table 14. The results show that all three facets of adjustment had a significant positive effect on expatriate job satisfaction. The corrected mean correlations (ρ) were large for the relationships of general and work adjustment with job satisfaction ($\rho = 0.343$ and $\rho = 0.435$ respectively); and the correlation (ρ) was medium for relationship of interaction adjustment with job satisfaction ($\rho = 0.255$). Hypothesis 5 is supported.

The results again confirm the within-domain effects as work adjustment (work-related indicator of adjustment) shows strongest effects on job satisfaction (work-related outcome). Cross-domain effects are also confirmed because general and interaction adjustment (non-work related indicators of adjustment) also have effects on job satisfaction (work-related outcome), though, comparatively milder.

Table 14: **Meta-Analysis Results of Expatriate Adjustment on Job Satisfaction**

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
									Lower	Upper	Lower	Upper
General Adjustment	Job Satisfaction	16	2399	0.284	0.014	41.673	0.343**	0.012	0.272	0.414	0.162	0.523
Interaction Adjustment	Job Satisfaction	7	1162	0.216	0.008	73.120	0.255**	0.003	0.178	0.332	0.167	0.342
Work Adjustment	Job Satisfaction	11	1853	0.360	0.011	47.404	0.435**	0.008	0.362	0.509	0.288	0.582

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

5.2.2 Expatriate adjustment to job performance (Hypothesis 6)

The three facets of adjustment showed significant positive corrected mean correlation (ρ) with expatriate job performance. Meta-analysis results for the effects of adjustment on overall performance, task performance, and contextual performance are reported in table 15.

General adjustment and interaction adjustment had medium correlation with performance (ρ = 0.258 and ρ = 0.237 respectively); while work adjustment showed large correlation with expatriate job performance (ρ = 0.406). These results again confirm within-domain and cross-domain effects. Within-domain effects are confirmed as work adjustment showed stronger correlation with job performance than general and interaction adjustment. The effect of work adjustment on job performance is as high as almost double than the effects of general and interaction adjustment on job performance. This is because work adjustment and job performance are both work-related variables. Cross-domain effects are confirmed as general adjustment and interaction adjustment, though non-work related measures of expatriate adjustment, also show significant positive effects on performance (work-related outcome).

It was hypothesized that, in addition to an overall effect of adjustment on job performance, work adjustment has a positive effect on task performance, and general and interaction adjustment have positive effects on contextual performance. The effects of all three facets of adjustment are, however, examined both on task as well as contextual performance.

General, interaction, and work adjustment revealed significant positive corrected mean correlation (ρ) with expatriate task performance. General and interaction adjustment showed medium correlations with task performance (ρ = 0.228 and ρ = 0.193 respectively); and work adjustment showed large correlation with task performance (ρ = 0.443). Hypothesis 6c is supported as the results confirm a significant correlation of work adjustment with task performance. General and interaction adjustment also showed significant effects on task performance, though the effects were weaker than those of work adjustment. Again it is in line with domain-specific effects as it was expected that work adjustment will effect strongly on task performance because task performance refers to core competencies regarding highly technical and specific aspects of a job. While contextual performance includes relational/ managerial aspects of the job.

Table 15: Meta-Analysis Results of Expatriate Adjustment on Job Performance

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
									Lower	Upper	Lower	Upper
General Adjustment	Performance	16	2802	0.210	0.034	16.135	0.258**	0.042	0.147	0.368	-0.078	0.594
Interaction Adjustment	Performance	14	2298	0.199	0.016	35.826	0.237**	0.014	0.158	0.316	0.039	0.434
Work Adjustment	Performance	13	2231	0.334	0.023	21.655	0.406**	0.026	0.306	0.505	0.142	0.670
General Adjustment	Task Performance	6	910	0.182	0.006	106.904	0.228**	0.000	0.151	0.304	0.228	0.228
Interaction Adjustment	Task Performance	5	828	0.156	0.014	43.365	0.193**	0.011	0.067	0.318	0.017	0.369
Work Adjustment	Task Performance	5	828	0.349	0.014	36.063	0.443**	0.014	0.310	0.577	0.245	0.642
General Adjustment	Contextual Perf.	6	910	0.219	0.014	43.497	0.273**	0.012	0.154	0.391	0.091	0.454
Interaction Adjustment	Contextual Perf.	6	895	0.323	0.006	92.360	0.383**	0.001	0.308	0.457	0.341	0.425
Work Adjustment	Contextual Perf.	5	828	0.260	0.005	110.151	0.322**	0.000	0.245	0.399	0.322	0.322

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

General adjustment, interaction adjustment, and work adjustment showed significant positive corrected mean correlation (ρ) also with expatriate contextual performance. General adjustment revealed medium corrected mean correlation with contextual performance (ρ = 0.273); and interaction and work adjustment showed large corrected mean correlations with contextual performance (ρ = 0.383 and 0.322 respectively). Hypotheses 6a and 6b stated that general and interaction adjustment will have a positive impact on contextual performance. Hypotheses 6a and 6b are confirmed as general and interaction adjustment showed significant correlations with expatriate contextual performance. As expected, these effects are stronger than the effects of general and interaction adjustment on task performance (0.273 and 0.383 respectively on contextual performance as compared to 0.228 and 0.193 respectively on task performance). As contextual performance constitutes relational and managerial aspects of the performance, it is affected strongly by general and interaction adjustment rather than by work adjustment. Moreover, interaction adjustment has the strongest correlation with the contextual performance. It confirms that interaction adjustment that defines the interactional ability of the expatriate is related strongly with contextual performance that is interaction-related aspect of the expatriate performance. Work adjustment, although not hypothesized to be related with contextual performance, did also show a large correlation with expatriate contextual performance. This is due to work-related nature of both work adjustment and job performance in general.

5.2.3 Expatriate adjustment to intentions to quit (Hypothesis 7)

All three facets of expatriate adjustment revealed significant negative corrected mean correlations (ρ) with expatriate intentions to quit. The results for meta-analysis between adjustment and intentions to quit are reported in table 16. General adjustment and work adjustment showed medium correlation with intentions to quit (ρ = -0.300 and ρ = -0.301), and interaction adjustment showed small correlation with intentions to quit (ρ = -0.166). The results confirm hypothesis 7 which stated that expatriate adjustment has a negative impact on expatriate intentions to quit.

5.2.4 Expatriate adjustment to organizational commitment (Hypothesis 8)

The three facets of expatriate adjustment (General, interaction, and work adjustment) revealed significant positive corrected mean correlations (ρ) with expatriate organizational commitment. The results regarding effects of adjustment on organizational commitment are given in table 17. All three facets had a medium correlation with organizational commitment (ρ = 0.209, ρ = 0.172, and ρ = 0.231 respectively).

For separate facets of commitment; general, interaction, and work adjustment showed significant positive correlations with expatriate organizational commitment to the parent company (OCP). The correlations were, however, mostly small. General and interaction adjustment had small correlations with OCP (ρ = 0.129, ρ = 0.118 respectively); and work adjustment had medium correlation (ρ = 0.222). Hypothesis 8a is confirmed.

General, interaction, and work adjustment also showed significant positive correlations with expatriate organizational commitment to the foreign company (OCF). Interestingly and as expected, the correlations were stronger for OCF as compared to OCP. The correlations of general and interaction adjustment with OCF were medium (ρ = 0.298 and ρ = 0.239 respectively) and the correlation of work adjustment with OCF was large (ρ = 0.365). Hypothesis 8b is confirmed. The results of hypothesis 8a and 8b confirm the expectation that adjustment has a stronger effect on OCF as compared to OCP.

Table 16: Meta-Analysis Results of Expatriate Adjustment on Intentions to Quit

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
									Lower	Upper	Lower	Upper
General Adjustment	Intentions to Quit	13	2104	-0.240	0.016	36.281	-0.300**	0.016	-0.387	-0.213	-0.508	-0.091
Interaction Adjustment	Intentions to Quit	9	1415	-0.135	0.008	82.733	-0.166**	0.002	-0.236	-0.096	-0.239	-0.093
Work Adjustment	Intentions to Quit	11	1894	-0.240	0.012	48.026	-0.301**	0.010	-0.382	-0.220	-0.462	-0.140

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

Table 17: Meta-Analysis Results of Expatriate Adjustment on Organizational Commitment

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
									Lower	Upper	Lower	Upper
General Adjustment	Org. Commitment	12	2349	0.171	0.020	24.992	0.209**	0.021	0.112	0.305	-0.033	0.450
Interaction Adjustment	Org. Commitment	5	1342	0.147	0.009	40.335	0.172**	0.007	0.074	0.270	0.032	0.313
Work Adjustment	Org. Commitment	7	1725	0.193	0.017	22.719	0.231**	0.018	0.115	0.346	0.007	0.454
General Adjustment	OC – Parent	3	849	0.107	0.006	59.700	0.129*	0.003	0.024	0.233	0.033	0.224
Interaction Adjustment	OC – Parent	2	599	0.105	0.000	13181.690	0.118**	0.000	0.111	0.125	0.118	0.118
Work Adjustment	OC – Parent	3	849	0.189	0.002	196.244	0.222**	0.000	0.167	0.277	0.222	0.222
General Adjustment	OC – Foreign	3	768	0.235	0.002	167.076	0.298**	0.000	0.230	0.366	0.298	0.298
Interaction Adjustment	OC – Foreign	2	518	0.204	0.002	191.640	0.239**	0.000	0.168	0.310	0.239	0.239
Work Adjustment	OC – Foreign	3	768	0.295	0.006	64.224	0.365**	0.003	0.261	0.469	0.275	0.455

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

OC = Organizational commitment

5.2.5 Expatriate job satisfaction to intentions to quit (Hypothesis 9)

The results of hypothesis 9 showed that expatriate job satisfaction had a significant and negative corrected mean correlation (ρ) with intentions to quit (ρ = -0.414). The mean corrected correlation between expatriate job satisfaction and expatriate intentions to quit was large. Hypothesis 9 is confirmed. It shows that with a better level of job satisfaction, intentions to quitting the international assignment and/or the organization are less likely to occur.

5.2.6 Expatriate job satisfaction to organizational commitment (Hypothesis 10)

Expatriate job satisfaction revealed a significant and positive effect on expatriate organizational commitment. Table 18 reports the meta-analysis results between expatriate job satisfaction and intentions to quit as well as organization commitment. The corrected mean correlation (ρ) of expatriate job satisfaction with expatriate organizational commitment was large (ρ = 0.555). Hypothesis 10 is confirmed. It reveals that better satisfied expatriates may experience high commitment levels.

5.2.7 Expatriate organizational commitment to intentions to quit (Hypothesis 11)

Expatriate organizational commitment showed a significant negative corrected mean correlation (ρ) with expatriate intentions to quit (ρ = -0.397). The corrected mean correlation was a large one. Hypothesis 11 is confirmed. This relationship shows that commitment to the organization on the part of expatriate leads to lower levels of withdrawal intentions.

5.2.8 Expatriate organizational commitment to job performance (Hypothesis 12)

The results showed that expatriate organizational commitment had a significant positive corrected mean correlation (ρ) with expatriate job performance (ρ = 0.249) and it was of a medium magnitude. Hypothesis 12 is confirmed. This effect reveals that better committed expatriates are expected to perform better at the job at host location. Meta-analysis results for the effects of expatriate organizational commitment on expatriate job performance and on intentions to quit are provided in table 19.

Table 18: Meta-Analysis Results of Expatriate Job Satisfaction on Intentions to Quit and Organizational Commitment

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
									Lower	Upper	Lower	Upper
Job Satisfaction	Intentions to Quit	13	2224	-0.334	0.022	25.187	-0.414**	0.025	-0.515	-0.313	-0.677	-0.152
Job Satisfaction	Org. Commitment	15	3459	0.447	0.030	12.960	0.555**	0.039	0.446	0.663	0.229	0.881

Table 19: Meta-Analysis Results of Expatriate Organizational Commitment on Intentions to Quit and Job Performance

Antecedent	Correlates	k	N	Mean r	Var r	Pct Var Artifacts	Estimated ρ	Var ρ	95% Confidence Interval		90% Credibility Interval	
									Lower	Upper	Lower	Upper
Org. Commitment	Intentions to Quit	6	1100	-0.341	0.006	75.823	-0.397**	0.002	-0.468	-0.326	-0.468	-0.326
Org. Commitment	Performance	7	1466	0.202	0.012	39.007	0.249**	0.010	0.150	0.347	0.080	0.417

K = Number of studies; N = Total sample size; Mean r = Sample size weighted mean correlation; Var r = Variance of sample size weighted mean correlation; Pct Var Artifacts = Percentage of variance attributable to statistical artifacts; Estimated ρ = True score correlation corrected for sampling error and measurement error; Var ρ = Variance of true score correlation

**p < .01 *p < .05

5.3 Moderator Analysis for the Meta-Analytical Relationships between Adjustment and Outcomes

Moderator analysis was conducted also for the meta-analytical relationships between expatriate adjustment and outcomes of adjustment. The analysis was conducted in the same way as for the meta-analyses between antecedents and adjustment. Same moderating variables were examined.

5.3.1 Results of the moderator analysis

Again, for relationships between adjustment and outcomes, moderator analysis could not be conducted for all the relationships due to lack of sufficient data. The results for moderator analysis are presented in tables 20 – 25. Only significant relationships are reported[14].

5.3.1.1 Length of the stay at host location

The results for the moderating effect of length of the stay are presented in table 20.For length of stay, a significant moderating effect was found for following two relationships:

- General adjustment to intentions to quit
- General adjustment to organizational commitment

No a priori direction of the moderating effect was specified. For both of the relationships, corrected mean correlation of the studies consisting of expatriate samples with shorter duration of stay (less than 31 months, the median value) was higher than correlation of the studies consisting of expatriate samples with longer duration of stay.

5.3.1.2 USA versus Non-USA sample origin

The results for the moderating effect of USA versus non-USA sample are reported in table 21. A significant effect of this moderator was found for the following relationships:

- Interaction adjustment to organizational commitment
- Work adjustment to organizational commitment

In both of the significant relationships, studies based on non-USA sample were found to have higher correlation than the studies based on the USA sample.

[14] For a quick summary of moderator analysis results, see figure 3 on page 110

Table 20: Moderator Results – Length of Stay

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Length of Stay										**Lower**	**Upper**	
General Adjustment to IQ	Shorter	4	760	-0.321	0.018	0.004	23.950	-0.392	0.020	-0.553	-0.232	-1.683*
	Longer	6	906	-0.175	0.010	0.006	63.113	-0.220	0.006	-0.322	-0.118	
General Adjustment to OC	Shorter	4	810	0.240	0.001	0.004	422.446	0.294	0.000	0.255	0.334	-3.049***
	Longer	3	926	0.023	0.007	0.003	46.351	0.027	0.005	-0.086	0.141	

†Z-score tests were conducted in the following direction: Length of stay: longer stay – shorter stay

Thus, a positive Z-score value indicates that correlations revealed by the studies containing expatriate samples having longer duration of stay at host location are higher than the correlations revealed by the studies containing expatriate samples having shorter duration of stay at host location. A negative Z-score value indicates moderating effect in the opposite direction.

***p < .01 **p < 0.05 *p < 0.10

IQ = Intentions to quit

OC = Organizational commitment

Table 21: Moderator Results – USA versus Non-USA Sample

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
USA versus Non-USA Sample										**Lower**	**Upper**	
Interaction Adjustment to OC	USA Sample	3	970	0.113	0.004	0.003	82.298	0.130	0.001	0.051	0.209	1.716*
	Non-USA	2	372	0.233	0.012	0.005	40.762	0.282	0.011	0.095	0.469	
Work Adjustment to OC	USA Sample	3	970	0.119	0.009	0.003	35.322	0.140	0.007	0.017	0.263	2.425**
	Non-USA	4	755	0.289	0.012	0.004	40.749	0.350	0.010	0.221	0.478	

†Z-score tests were conducted in the following direction: USA versus Non-USA sample: Non-USA – USA sample

Therefore, a positive Z-score indicates that studies employing non-USA expatriates samples (by nationality) show higher correlation than the studies employing USA expatriate samples (by nationality)

A negative Z-score shows moderating effect in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

OC = Organizational commitment

5.3.1.3 Age of the expatriates

Table 22 presents the results regarding moderating effect of age of the expatriates. Age of the expatriates showed a significant moderating effect for the following relationships:

- Work adjustment to intentions to quit
- General adjustment to performance
- General adjustment to organizational commitment
- Job satisfaction to organizational commitment
- Organizational commitment to intentions to quit

In all the relationships, studies with the younger expatriate samples revealed higher correlation than the studies with the older expatriate samples.

5.3.1.4 Length of tenure with the parent organization

The results for the moderating effect of length of organizational tenure are reported in table 23. Owing to the lack of sufficient data for length of tenure with the parent organization, this moderator was found significant only for following two relationships:

- Work adjustment to job performance
- Job satisfaction to organizational commitment

For both of the above significant relationships, moderating effect was in opposite direction to each other. The studies with expatriate samples having longer organizational tenure showed higher correlation than the studies with expatriate samples having shorter tenure for the relationship of work adjustment to performance. On the other hand, for the relationship of job satisfaction to organizational commitment, the effect was in opposite direction.

Table 22: Moderator Results – Age of the Expatriates

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Age of the Expatriates										**Lower**	**Upper**	
Work Adjustment to IQ	Younger	3	500	-0.322	0.012	0.005	45.251	-0.421	0.011	-0.579	-0.262	1.669*
	Older	6	1074	-0.201	0.006	0.005	102.179	-0.254	0.000	-0.329	-0.178	
General Adjustment to Perf.	Younger	5	621	0.367	0.075	0.006	8.737	0.435	0.095	0.150	0.720	2.610***
	Older	7	1537	0.137	0.004	0.004	113.186	0.168	0.000	0.111	0.225	
General Adjustment to OC	Younger	4	409	0.314	0.006	0.008	148.133	0.383	0.000	0.293	0.473	2.429**
	Older	6	1491	0.096	0.013	0.004	30.452	0.117	0.013	0.005	0.229	
Job Satisfaction to OC	Younger	9	2005	0.486	0.011	0.003	36.397	0.610	0.011	0.525	0.695	4.661***
	Older	3	894	0.232	0.014	0.003	21.796	0.260	0.013	0.110	0.409	
Org. Commitment to IQ	Younger	2	293	-0.452	0.001	0.004	281.166	-0.519	0.000	-0.573	-0.465	1.810*
	Older	4	807	-0.301	0.001	0.004	300.926	-0.353	0.000	-0.395	-0.310	

†Z-score tests were conducted in the following direction: Age: younger – older

For this moderator, a positive Z-score indicates that studies employing younger expatriate sample show higher correlations than the studies employing older expatriate sample

While, negative Z-score indicates that studies employing older expatriate sample show higher correlation than the studies employing younger expatriate sample (i.e. in the opposite direction)

***p < .01 **p < 0.05 *p < 0.10

IQ = Intentions to quit

Perf. = Performance

OC = Organizational commitment

Table 23: Moderator Results – Tenure with the Parent Organization

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Tenure with the Parent Organization										**Lower**	**Upper**	
Work Adjustment to Perf.	Shorter Ten.	6	1095	0.348	0.002	0.004	229.617	0.422	0.000	0.378	0.466	2.926***
	Longer Ten.	2	426	0.532	0.000	0.002	15845.687	0.661	0.000	0.653	0.669	
Job Satisfaction to OC	Shorter Ten.	3	717	0.472	0.005	0.003	66.538	0.590	0.002	0.493	0.687	-1.769*
	Longer Ten.	3	950	0.380	0.063	0.002	4.515	0.467	0.088	0.118	0.815	

†Z-score tests were conducted in the following direction: Tenure: longer tenure – shorter tenure

A positive Z-score, in this case, indicates a higher correlation revealed by studies employing samples consisting of expatriates who have longer tenure with the parent organization than studies employing samples consisting of expatriates who have shorter tenure with the parent organization

A negative Z-score indicates moderating effect in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

Perf. = Performance

OC = Organizational commitment

5.3.1.5 Host country language – English versus not English

The results for the moderating effect of host country language – English versus not English are presented in table 24. The direction of the moderating effect was specified a priori for this moderator. It was hypothesized that studies with expatriate samples expatriated to English-speaking countries will show higher correlations than the studies with expatriate samples expatriated to non-English speaking countries. Significant moderating effects for this moderator were found for the following relationships:

- Work adjustment to job satisfaction
- General adjustment to intentions to quit
- Work adjustment to performance

In all the above significant relationships, direction of the moderating effect was consistent to as hypothesized (the research studies with expatriate samples drawn from English-speaking countries of expatriation revealed higher correlations as compared to the studies with expatriate samples drawn from non-English speaking countries).

5.3.1.6 Published versus unpublished studies

The results of the moderating effect of publication status are reported in table 25. The direction of the moderating effect was specified a priori also for moderating effect of the publication status. It was hypothesized that published research studies will reveal higher correlations than unpublished studies. Following relationships were found to be affected significantly by this moderator:

- General adjustment to intentions to quit
- Work adjustment to performance
- Job satisfaction to intentions to quit

Unlike in antecedents' meta-analysis, publication status showed mixed results as a moderating variable in this meta-analysis. The moderating effect was in hypothesized direction for the relationship of general adjustment to intentions to quit i.e. published studies had higher correlations than the unpublished studies. For work adjustment to performance; and job satisfaction to intentions to quit; the effect was, however, in opposite direction i.e. unpublished studies had higher correlations than published studies. Overall in both meta-analyses, however, higher correlations were mostly found for published studies.

Table 24: Moderator Results – Host Country Language – English versus Not English

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Host Country Language – English versus Not English										**Lower**	**Upper**	
Work Adjustment to JS	HCL English	3	487	0.497	0.005	0.004	92.733	0.609	0.000	0.515	0.704	2.579***
	HCL Not Eng.	8	1366	0.312	0.004	0.005	139.133	0.374	0.000	0.323	0.425	
General Adjustment to IQ	HCL English	3	577	-0.352	0.016	0.004	26.299	-0.436	0.017	-0.612	-0.260	1.879**
	HCL Not Eng.	10	1527	-0.198	0.010	0.006	63.758	-0.247	0.006	-0.326	-0.169	
Work Adjustment to Perf.	HCL English	2	179	0.515	0.001	0.006	1003.789	0.641	0.000	0.598	0.684	2.510***
	HCL Not Eng.	11	2052	0.318	0.021	0.004	21.576	0.385	0.024	0.280	0.489	

†Z-score tests were conducted in the following direction: HCL – English versus not English: HCL English – HCL not English

Here, a positive Z-score shows that studies with samples of expatriates posted in English-speaking countries show higher correlation than the studies with expatriate samples posted in non-English speaking countries

A negative Z-score reveals that moderating effect is in the opposite direction

***p < .01 **p < 0.05 *p < 0.10

JS = Job satisfaction

IQ = Intentions to quit

Perf. = Performance

Table 25: Moderator Results – Published versus Unpublished Studies

		k	N	Mean r	Var r	Var sample error	Pct Var Artifacts	ρ	Var ρ	95% Confidence Interval		Z†
Published versus Unpublished Studies										**Lower**	**Upper**	
General Adjustment to IQ	Published	11	1825	-0.260	0.015	0.005	38.599	-0.327	0.014	-0.418	-0.235	1.764**
	Unpublished	2	279	-0.107	0.004	0.007	173.224	-0.131	0.000	-0.239	-0.022	
Work Adjustment to Perf.	Published	10	1680	0.293	0.021	0.005	25.643	0.355	0.022	0.247	0.463	-2.257**
	Unpublished	3	551	0.459	0.008	0.003	43.280	0.562	0.007	0.436	0.688	
Job Satisfaction to IQ	Published	11	1945	-0.296	0.012	0.005	47.658	-0.367	0.009	-0.448	-0.287	-4.249***
	Unpublished	2	279	-0.602	0.014	0.003	23.863	-0.740	0.016	-0.941	-0.539	

†Z-score tests were conducted in following direction: Published versus unpublished studies: published – unpublished

In this case, a positive Z-score shows that published studies reveal higher correlation than the unpublished studies

Again, a negative Z-score reveals the effect in the opposite direction i.e. unpublished studies show higher correlation than the published studies

***p < .01 **p < 0.05 *p < 0.10

IQ = Intentions to quit

Perf. = Performance

No moderating effect was found for multi-country versus single-country of expatriation; self versus external measures of assessment; and previous international experience due to insufficiency of data.

A summary of the moderator analysis results for meta-analysis between expatriate adjustment and outcomes is presented in figure 3.

Figure 3: Summary of Moderator Analysis Results for Meta-Analysis between Adjustment and Outcomes

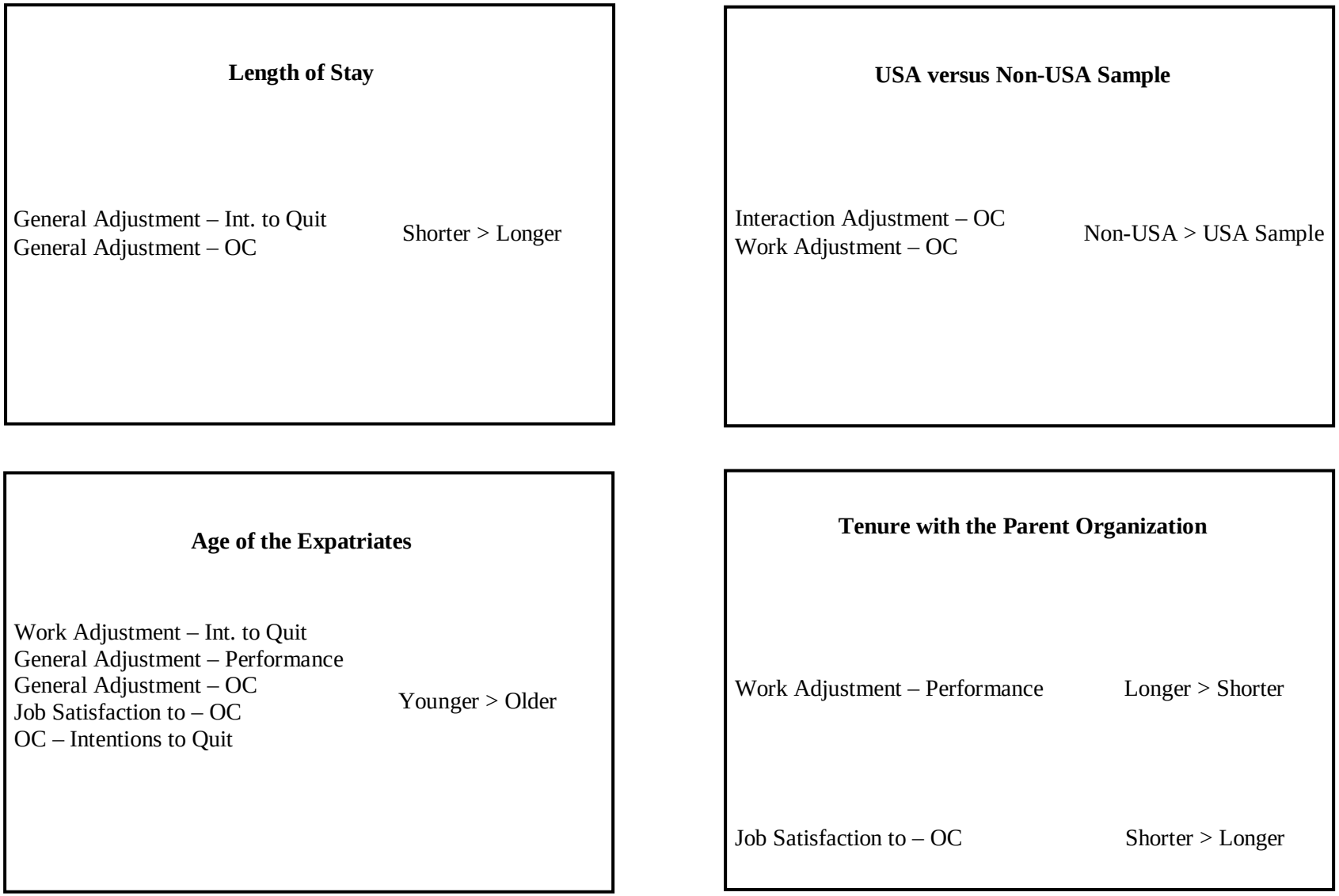
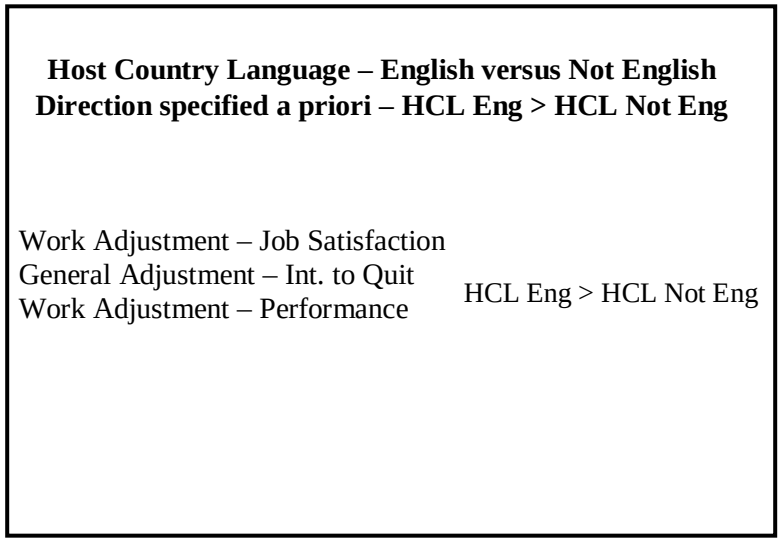
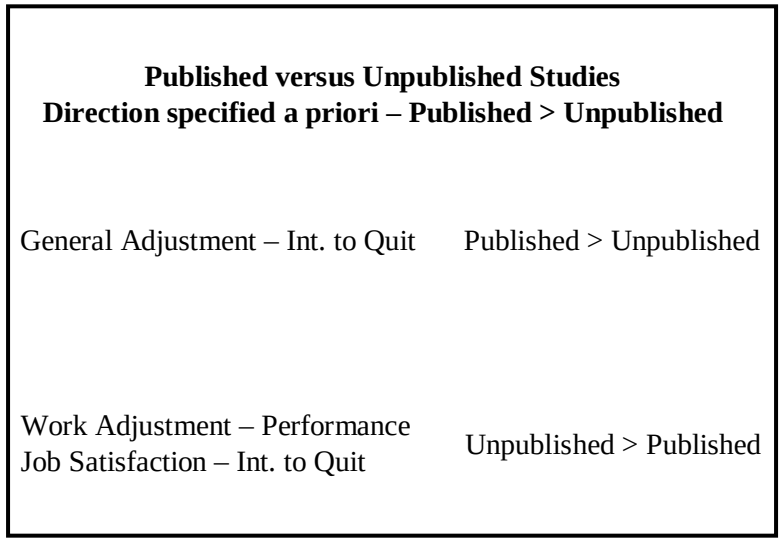


Figure 3: Continued





OC = Organizational Commitment
CCT = Cross-Cultural Training
FSA = Family Support & Adjustment
RA = Role Ambiguity
CTRY = Country
HCL = Host Country Language

Chapter 6
Structural Equation Modeling

To test the causal links between antecedents, adjustment, and outcomes of adjustment, meta-analytic structural equation modeling (MA-SEM) is conducted. It is important to assess the effects of expatriate adjustment on adjustment outcomes and the effects of outcomes within themselves to find out the consequences that are vital for the international assignment. Apart from exploring causal linkages between adjustment and adjustment outcomes; effects of the selected four antecedents on adjustment and outcomes of adjustment are also explored.

To achieve these objectives, two different structural models are tested using meta-analytic structural equation modeling:

- Adjustment-outcomes model
- Antecedents-adjustment-outcomes model

6.1 Adjustment-Outcomes Model

In this model, the effects of expatriate adjustment (general, interaction, and work adjustment) are tested on outcomes of adjustment (job satisfaction, job performance, organizational commitment, and job performance). Moreover, effects of outcomes on other outcomes are also tested according to the hypotheses previously stated for meta-analyses of adjustment on outcomes.

6.2 Antecedents-Adjustment-Outcomes Model

In this model, the effects of four antecedents (language, cross-cultural training, role ambiguity, and family support & adjustment) are tested on adjustment and outcomes of adjustment. Paths from adjustment to outcomes; and within outcomes are also included. So, in essence, this model tests overall effects of antecedents and adjustment on the outcomes of adjustment.

6.3 Meta-Analytic Structural Equation Modeling (MA-SEM)

Combining meta-analysis and structural equation modeling for the purpose of theory testing is in use since almost two decades. This methodology allows using secondary data coming from a large number of primary research studies to test the theoretical relationships. This methodology has certain advantages as well as certain challenges are also posited.

One major advantage is that not all the constructs that are to be analyzed by structural equation modeling must be present in every underlying study. Different constructs might be tested in different studies. Meta-analytic correlations can be calculated between all the variables under consideration and then MA-SEM can be conducted (Viswesvaran and Ones 1995). The use of structural equation modeling methodology based on the meta-analysis results may facilitate a comprehensive and concrete testing of alternative models (Hunter and Schmidt 2004). Use of multiple samples in meta-analysis may improve the statistical power in relation to the single sample research studies (Fried, Shirom, Gilboa, and Cooper 2008). As meta-analysis allows for correction of statistical artifacts e.g. sampling and reliability error; it may improve the parameter estimates in meta-analytic structural equation modeling (Hunter and Schmidt 2004).

I followed the approach proposed by Viswesvaran and Ones (1995) for meta-analytic structural equation modeling. They advise identifying important constructs and the relationships; identifying operationalization of the constructs; conducting psychometric meta-analysis allowing corrections for artifacts; and then using path analysis for theory testing.

6.3.1 Challenges in meta-analytic structural equation modeling

Along with advantages in the form of ability to synthesize correlations from multiple samples, meta-analytic structural equation modeling also poses certain challenges and problems specific to the methodology. There are some decision points which researchers are likely to face. Some of the challenges are discussed below:

- Empty cells
- Sample size
- Variability in the mean correlations/heterogeneity of correlation matrix
- Input of correlation matrix instead of covariance matrix for structural equation modeling

6.3.1.1 Empty cells

A researcher may encounter the problem of empty cells while conducting MA-SEM. The problem of empty cells can arise if no study in the sample reports bivariate correlation for one or more variable pairs, thus leaving the respective cells empty in correlation matrix.

Viswesvaran and Ones (1995) advise rectifying this problem by conducting a primary study to get estimates of the correlations between required variables; by using average correlations; by omitting the concerned variables; or by using subject matter experts to get the estimates for the empty cells.

Fortunately, for this research, the problem of empty cells did not arise and correlations for all bivariate relationships were available for the analysis.

6.3.1.2 Sample size

Another problem that is encountered while conducting MA-SEM is that of sample size. The correlation in each cell of meta-analytically derived correlation matrix is estimated by a separate meta-analysis. Each meta-analysis is derived from a different number of primary studies. Resultantly, sample size is different in each cell and may range from less than one hundred to thousands. Thus, researcher has to confront the decision which sample size to use. Viswesvaran and Ones (1995) advocate the use of harmonic mean across the sample sizes of different cells. Harmonic mean formula is as follows:

$$\frac{}{\frac{}{}\quad\frac{}{}\quad\frac{}{}\quad\frac{}{}\quad\frac{}{}\quad\frac{}{}}$$

Viswesvaran and Ones (1995) argue that ‘use of harmonic mean is consistent with the literature on unweighted analysis of variance, and is consistent with the overall degree of precision existing in the available data’(p. 877). Harmonic mean gives a more conservative estimate of sample size as compared to arithmetic mean because less weight is given to the larger cell sample sizes while calculating harmonic mean (Viswesvaran and Ones 1995).

6.3.1.3 Variability in the mean correlations/heterogeneity of correlation matrix

Another problem is that of variability in the mean correlations. A fair amount of variability can still remain after sampling error, reliability error, and other statistical artifacts are removed. This high variability can be suggestive of the presence of moderating variables or the outliers. Hunter and Schmidt (1990) propose 75% rule of thumb which describes that if less than 75% of the variance in effect sizes is explained by statistical artifacts; it shows that correlations are not homogenous. Lack of homogeneity in the correlation matrix can result in biased parameter estimates and can affect generalizability of the results.

Viswesvaran and Ones (1995) propose conducting moderator analysis to identify potential moderators. In this approach, moderator analysis is conducted until the variability drops below a certain level. All moderators identified through this process are included in the path analysis. In another approach proposed by Viswesvaran and Ones (1995), two correlation matrices are constructed; one with lower level of 90% confidence intervals around the meta-analytic correlations, the other one is constructed in the similar manner with upper level of 90% confidence intervals. These correlation matrices are exposed to structural equation modeling separately and the fit of the two SEM models can then be compared with the fit of the model based on mean correlations.

For this research, extensive moderator analysis is performed and moderating effect of many variables is established. It was, however, not possible to conduct multi-group SEM analysis because of insufficiency of data on moderating variables and already small samples available for calculation of certain effect sizes. I, therefore, use approach used by Carrillat, Jaramillo, and Mulki (2009) to see if heterogeneity of correlations does affect the results of SEM. The same approach is also used by Sheu et al. (2010). They examined the outliers in their sample of studies and removed those studies from each sample which represented highest or lowest correlations. If removing one highest or lowest study did not decrease amount of the unexplained variance, they removed another study from the opposite extreme until the amount of unexplained variance dropped to a certain level.

Such bivariate correlations where unexplained variance was more than 25% were identified. Then, outlier(s) were removed for each such bivariate correlation until unexplained variance dropped below 25%. Care was exercised to remove as little number of studies as possible. In many cases, only one or two studies were needed to be removed to achieve

homogeneity; and it was not a threat towards losing the data because low k effect sizes were mostly homogenous already.

Then, SEM was run with homogenous correlation matrix and the results were compared with the model based on the original heterogeneous matrix. The models were not considerably different in both cases regarding the direction of relationships and significance of the parameter estimates. To avoid the loss of data, original heterogeneous matrix, therefore, was retained for SEM and the results are reported accordingly.

6.3.1.4 Input of correlation matrix instead of covariance matrix for SEM

Problems can arise with estimation of the standard errors in case if correlation matrices are used to conduct structural equation modeling (Cudeck 1989). Preferably, covariance matrices should be used; however, for meta-analytic structural equation modeling, usually only correlation matrices are available. The same conclusion is drawn by Furlow and Beretvas (2005) who state that all MA-SEM studies to date have relied on correlation matrix. Estimation of covariance matrices is possible if standard deviations and means are available for respective variables; however, it is hard to access this information while conducting MA-SEM because different measures are used for estimation of variables across different primary studies (Fried et al. 2008). Jöreskog and Sörbom (1996) (authors of widely used SEM software LISREL) also state that many researchers in behavioral sciences are using correlation matrices instead of covariance matrices for SEM in general. However, researchers should be cautious with the use of correlation matrix and should not assume that the results of SEM will be same with the input of correlation matrix as with the input of the covariance matrix (Furlow and Beretvas 2005).

Beretvas and Furlow (2006) conducted a survey of the research studies applying meta-analytic structural equation modeling methodology to evaluate how this methodology is used for analysis. They identified total 26 such studies and found that all of the 26 studies conducted structural equation modeling using pooled correlation matrix and not using covariance matrix. They argue that if different primary studies use different scales for measurement of the included constructs, correlation matrices should be analyzed. This is because scale of the measurement used for measurement of the construct can also be a source of difference in the resulting covariance, in addition to the correlations between the constructs. However, if each construct is

measured with same scale across studies, then covariance matrix should be used for structural modeling.

On the basis of a simulation study conducted by Beretvas and Furlow (2006), they found a positive standard error bias (overestimated SEs) for large factor loadings, making tests of the significance for path estimates over conservative.

To the best of my knowledge, only one of the studies so far (Darr and Johns 2008), using MA-SEM, used covariance matrix as input. They calculated covariance matrix on the basis of the correlation matrix by using standardized estimates of the standard deviation for variables used in the model. They calculated standard deviation of each measure from primary studies which clearly described scale and range of values used for measurement of that specific variable. They conducted two separate SEM based on the correlation as well as covariance matrix. They found that the SEM results obtained through the use of correlation matrix revealed smaller standard errors for the parameter test statistics and larger model fit indices (Darr and Johns 2008, p. 303). However, both sets of the results produced same decisions when various models were compared.

Tett and Meyer (1993) used correlation matrix as input, but they also recomputed parameter estimates and fit indices using estimates of variance and covariance based on two arbitrary sets of standard deviations. In all cases the LISREL output was similar as that generated with the original correlation matrix.

In the light of above discussion, the meta-analytically derived correlation matrix is retained for input in this research. Because it is established that only standard errors and model fit indices may be biased, if at all, and they are positively biased resulting in conservative standard errors and chi-square. Cudeck (1989) also concluded that use of correlation matrices results in conservative significance tests of individual parameters because of overestimated standard errors.

To mitigate this shortcoming anyway and to assess the degree of bias; covariance matrix was, however, constructed for this research by using standardized estimates of the standard deviations for variables as proposed by Darr and Johns (2008). The covariance matrix was exposed to SEM and the results were compared with those of SEM based on correlation matrix. The results were similar in both cases; that’s why original results, obtained through the use of correlation matrix as input, are reported.

6.3.2 Meta-analytic structural equation modeling methodology

For structural equation modeling, pooled correlation matrix was synthesized on the basis of the corrected mean correlations between variable pairs. Meta-analyses between antecedents, primary adjustment indicators, and outcomes of adjustment provided respective bivariate corrected mean correlations. These bivariate correlations, however, were not sufficient to fill all the cells in pooled correlation matrix. For that purpose, separate meta-analyses were run for each bivariate relationship to get estimated corrected mean correlation for each cell. To fill cells in correlation matrix, meta-analyses were conducted using different subsets from sample of the studies.

Pooled correlation matrix was used for MA-SEM. The meta-analytic correlation matrix for adjustment-outcomes model is given in table 26. Number of studies (K) and sample size (N) are also reported for each cell. Total sample size was determined through calculating harmonic mean of the sample sizes across the cells and that was 460 for adjustment-outcomes model. LISREL 8.80 was used and maximum likelihood procedure was adapted for estimation of measurement model and structural model. Error variances of single-indicator constructs were set as one minus average reliability coefficient of the respective constructs.

Table 26: Meta-Analytic Correlation Matrix – Adjustment-Outcomes Model

		1	2	3	4	5	6	7	8
1	General Adjustment	1							
2	Interaction Adjustment	0.592**	1						
	K, N	17, 3410							
3	Work Adjustment	0.448**	0.462**	1					
	K, N	19, 3875	19, 3668						
4	Job Satisfaction	0.343**	0.255**	0.435**	1				
	K, N	16, 2399	7, 1162	11, 1853					
5	Intentions to Quit	-0.300**	-0.166**	-0.301**	-0.414**	1			
	K, N	13, 2104	9, 1415	11, 1894	13, 2224				
6	Performance	0.258**	0.237**	0.406**	0.210**	-0.167**	1		
	K, N	16, 2802	14, 2298	13, 2231	10, 1919	10, 1329			
7	Commitment – Parent	0.129**	0.118**	0.222**	0.327**	-0.280**	0.130	1	
	K, N	3, 849	2, 599	3, 849	1, 78	1, 250	1, 197		
8	Commitment – Foreign	0.298**	0.239**	0.365**	0.267**	-0.230**	0.200**	0.677**	1
	K, N	3, 768	2, 518	3, 768	1, 78	1, 250	1, 197	4, 879	

K = Number of studies for each meta-analysis, N = Total sample size for each meta-analysis, Total N = 460 (Harmonic mean)

**p < .01 *p < .05

6.4 Results of Structural Equation Modeling

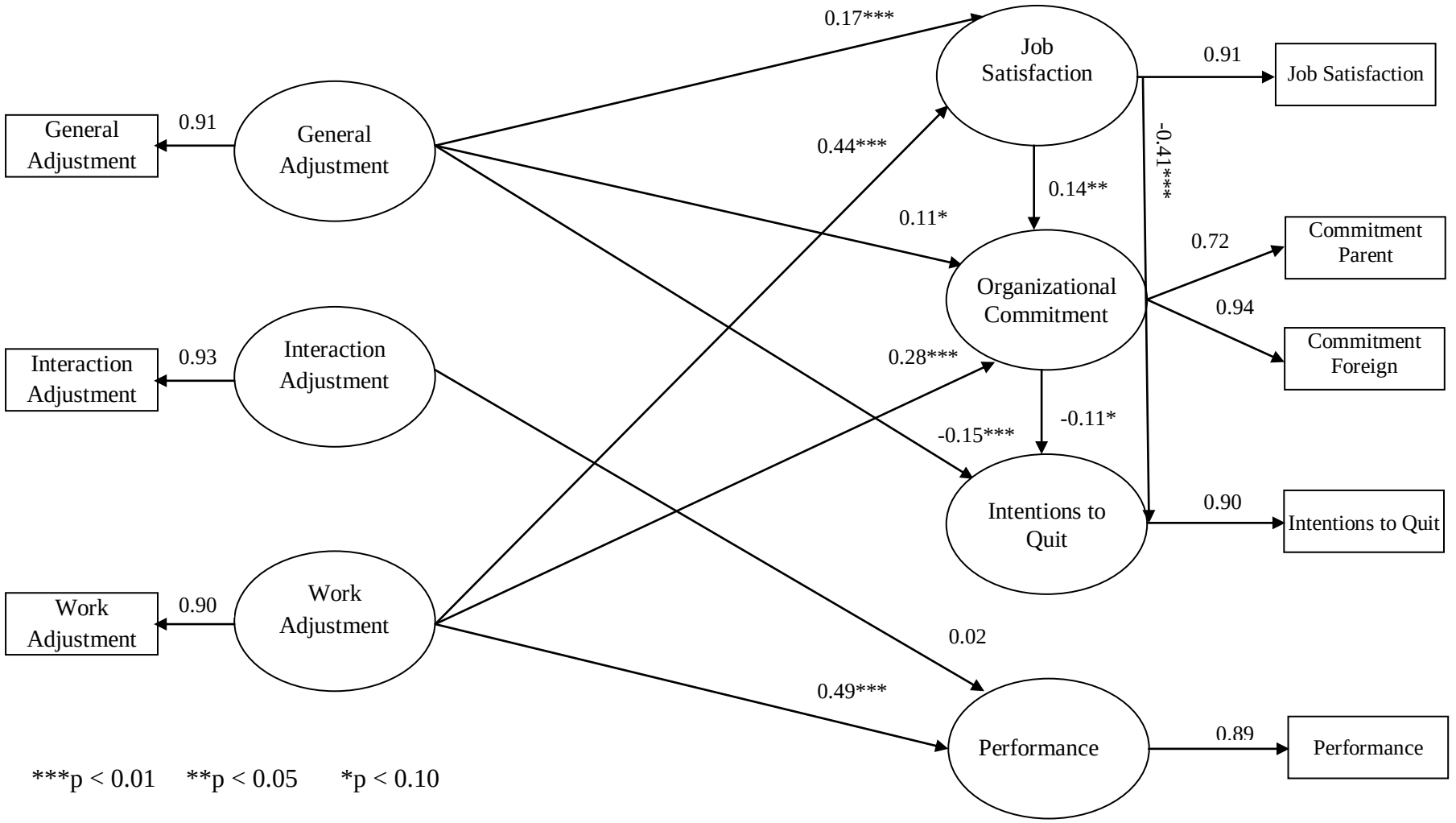
6.4.1 Adjustment-outcomes model

In adjustment-outcomes model, the structural relations were included between adjustment and outcomes according to the hypotheses 5 – 12. Thus, each of the three facets of adjustment (general adjustment, interaction adjustment, and work adjustment) was affecting each of the adjustment outcomes (job satisfaction, organizational commitment, intentions to quit, and performance). Within outcomes; job satisfaction was affecting intentions to quit and organizational commitment; and organizational commitment was affecting intentions to quit and performance. The model, however, did not show a good fit to the data. The model was modified on the basis of modification indices and non-significant paths were removed. The modified model revealed much better fit to the data with $\chi^2 = 50.46$ (P = 0.0), DF = 13; SRMR = 0.0351; RMSEA = 0.0792; NFI = 0.96; CFI = 0.97; and GFI = 0.97. The modified model also shows parsimony than the previous model. Due diligence was exercised while modifying the model to theoretically justifying any modifications made. The modified model is presented in figure 4. The parameter estimates from completely standardized solution along with respective t-values and standard errors are provided in table 27.

Most of the constructs in the model were single-indicator, except organizational commitment (dual-indicator: OC parent and OC foreign). The parameter estimates between the constructs and their respective indicators were significant showing that indicators are good measures of the respective underlying constructs.

The path estimate from general adjustment to job satisfaction was positive and significant (0.17, $p < .01$); to intentions to quit was negative and significant (-0.15, $p < .01$); and to organizational commitment was not significant at conventional .05 level (0.11, significant at $p < .10$). The path from general adjustment to performance was removed during modification process due to non-significance.

Figure 4: Adjustment-Outcomes Model with Maximum Likelihood Estimation



Goodness of Fit Indices

DF = 13, χ^2 = 50.46 (P = 0.0), SRMR = 0.0351, RMSEA = 0.0792, GFI = 0.97, CFI = 0.97, NFI = 0.96

Table 27: Parameter Estimates (Adjustment-Outcomes Model)

Path from		To	Estimate	T-value	Std. Err.
General Adjustment	→	Job Satisfaction	0.17	2.60	0.06
General Adjustment	→	Organizational Commitment	0.11	1.75	0.05
General Adjustment	→	Intentions to Quit	-0.15	-2.61	0.06
Interaction Adjustment	→	Performance	0.02	0.35	0.07
Work Adjustment	→	Job Satisfaction	0.44	6.72	0.07
Work Adjustment	→	Organizational Commitment	0.28	3.72	0.06
Work Adjustment	→	Performance	0.49	7.27	0.07
Job Satisfaction	→	Organizational Commitment	0.14	2.19	0.05
Job Satisfaction	→	Intentions to Quit	-0.41	-6.92	0.06
Organizational Commitment	→	Intentions to Quit	-0.11	-1.93	0.08

In the modified model, interaction adjustment was linked only to performance and the path estimate was positive but not significant (0.02). Work adjustment showed positive path estimates to job satisfaction, organizational commitment, and performance (0.44, 0.28, and 0.49 respectively, $p < .01$). The path from work adjustment to intentions to quit was removed in the modified model due to non-significance.

Within outcomes of adjustment, job satisfaction showed significant effects on organizational commitment and intentions to quit. The path estimate from job satisfaction to organizational commitment was positive and significant (0.14, $p < .05$); and path estimate from job satisfaction to intentions to quit was negative and significant (-0.41, $p < .01$). Organizational commitment showed a negative path estimate to intentions to quit, though, the effect was not significant at conventional .05 level (-0.11, significant at $p < .10$).

Overall, the structural model showed strongest effects of work adjustment on the outcomes of adjustment. General adjustment showed relatively moderate effects on outcomes; and interaction adjustment showed almost non-significant effects on outcomes of adjustment. Work adjustment also showed strong effects on work-related outcomes i.e. job satisfaction and performance. It shows that adjustment to the new work role plays a vital part in conclusion of the expatriate assignment.

6.4.1.1 Goodness of the fit of the model

The fit indices for the adjustment-outcomes model with maximum likelihood estimation showed a good fit of the model to data. The chi-square is significant indicating a lack of model fit. It is, however, important to understand that it provides 'a test of perfect fit in which the null hypothesis is that the model fits the population data perfectly' (Diamantopoulos and Siguaw 2000, p. 83). This test has some severe limitations. The chi-square test is sensitive to departures from multivariate normality and sample size. Many researchers (Hu and Bentler 1995; Fan, Thompson, and Wang 1999) have suggested that with increasing sample size, the chi-square values increase and suggest a poor fit of the model; while with smaller sample size it lacks power (Hooper, Coughlan, and Mullen). Due to these limitations, chi-square test is not used as a primary measure of goodness of fit for a structural equation model; and other fit indices like SRMR, CFI, GFI, etc., should also be considered.

Standardized root mean square residual (SRMR) is an absolute fit index. Absolute fit indices determine 'how well an a priori model fits the sample data and demonstrate which proposed model has the most superior fit' (Hooper et al. 2008 p. 53). Values for the SRMR range from zero to 1.0 and the model is considered well fitted in the case of SRMR value < 0.05 (Diamantopoulos and Siguaw 2000). However, Hu and Bentler (1999) advise that values up to 0.08 are acceptable. The value of SRMR is 0.046 in the model indicating an excellent fit to the data.

The RMSEA (root mean square error of approximation) is also an absolute fit index. The RMSEA values less than 0.05 indicate good model fit; values between 0.05 – 0.08 indicate reasonable model fit; values between 0.08 – 0.10 indicate mediocre model fit; and values above 0.10 indicate poor fit (Browne and Cudeck 1993; MacCallum, Browne, and Sugawara 1996). The value of RMSEA for the above model is 0.0792 indicating a reasonable model fit.

The Goodness-of-Fit statistic (GFI) is also an absolute fit index. It shows how closely the model reproduces the observed covariance matrix (Diamantopoulos and Siguaw 2000). The value for GFI ranges from 0 to 1 with values > 0.90 indicative of an acceptable model fit (Diamantopoulos and Siguaw 2000). The values ≥ 0.95 are indicative of a good model fit. The GFI value for the above model is 0.97 indicating a good fit.

NFI (Bentler-Bonett index or normed fit index) and CFI (comparative fit index) are incremental fit indices. The incremental or comparative fit indices 'do not use the chi-square in

its raw form but compare the chi-square value to a baseline model' (Hooper et al. 2008 p. 55). Values for NFI and CFI also range from 0 to 1 and values above 0.90 indicate an acceptable fit. However, Hu and Bentler (1999) advocate the use of CFI values ≥ 0.95 to be indicative of good model fit. The values for NFI and CFI are 0.96 and 0.97 respectively for our model, indicating an excellent fit.

For overall evaluation of the model fit, I follow Hu and Bentler (1999) approach to assessment of the model fit who propose joint criteria of model fit indices (using combinations of CFI, SRMR, and RMSEA). According to this criterion, fit of the structural equation model is considered good if either of the following fit index combinations is fulfilled:

CFI ≥ 0.95 and SRMR ≤ 0.09

or

SRMR ≤ 0.09 and RMSEA ≤ 0.06

Moreover, individually, Jöreskog and Sörbom (1996) describe CFI values more than 0.94 and SRMR values of less than 0.06 indicative of excellent model fit; while CFI values between 0.90 and 0.94 and SRMR values between 0.06 and 0.10 being indicative of acceptable, but marginal fit.

In the light of the Hu and Bentler (1999) model fit criterion and individual cutoff values, the adjustment-outcomes model shows an excellent fit to the data.

6.4.1.2 Squared multiple correlations for measurement and structural equations

Squared multiple correlations (R^2) for measurement equations as well as for structural equations are also reported. Squared multiple correlation is equivalent to the R^2 estimated in regression analysis and shows the amount of variance explained by the independent variable(s) in the dependent variable for each equation (Diamantopoulos and Siguaw 2000).

Squared multiple correlations for measurement equations are reported in table 28. They show the degree to which each indicator is free of measurement error. The higher the squared multiple correlation (closer to 1), the better the manifest variable is an indicator of the corresponding construct.

Table 28: Squared Multiple Correlations for Measurement Equations (Adjustment-Outcomes Model)

Indicator (Manifest Variable)	Squared Multiple Correlations
Job Satisfaction	0.83
Intentions to Quit	0.80
Performance	0.80
Commitment to Parent Company	0.52
Commitment to Foreign Company	0.89
General Adjustment	0.84
Interaction Adjustment	0.86
Work Adjustment	0.82

The squared multiple correlations for manifest variables of the constructs range from moderate to high. This shows that for most of the constructs, their respective manifest variables are good indicators of them.

Table 29 reports squared multiple correlations for the structural equations. They show the amounts of variance explained in the dependent latent variables (constructs) by effect of the independent latent variables (constructs) on them.

Table 29: Squared Multiple Correlations for Structural Equations (Adjustment-Outcomes Model)

Construct (Latent Variable)	Squared Multiple Correlations
Job Satisfaction	0.30
Intentions to Quit	0.30
Performance	0.26
Organizational Commitment	0.20

These squared multiple correlations, though to some extent modest; show that a reasonable amount of variance in each dependent variable is explained by its independent variables.

In addition to checking for squared multiple correlations for indicators of the latent variables, composite reliability and average variance extracted were also calculated for each construct. These values are suggestive of overall reliability of a construct in contrast to the squared multiple correlations for indicators which assess the reliability of the individual indicators.

All the composite reliability values were greater than 0.60 (a desirable level as suggested by Diamantopoulos and Siguaw 2000). This shows that indicator(s) of each construct provide a reliable measurement of the underlying latent variable (construct).

Average variance extracted for all the constructs was comfortably above 0.50. This shows that a substantial amount of variance in indicators is explained by the underlying construct as compared to the variance explained by the measurement error (Diamantopoulos and Siguaw 2000). Overall, composite reliability and average variance extracted values indicate that operationalization of the latent variables (constructs) is quite good.

6.4.2 Antecedents-adjustment-outcomes model

As described earlier, in this model antecedents are also included and the effects of four selected antecedents are tested on adjustment and outcomes of adjustment; also including the effects of adjustment on outcomes and within outcomes. This model examines the overall effect of antecedents and adjustment on the outcomes of adjustment that, in turn, translate into success or failure of the expatriate assignment.

Table 30: Meta-Analytic Correlation Matrix – Antecedents-Adjustment-Outcomes Model

	1	2	3	4	5	6	7	8	9	10	11	12
1 Language	1											
K, N												
2 CCT	0.101**	1										
K, N	6, 1094											
3 RA	0.067	-0.034	1									
K, N	3, 429	4, 874										
4 FSA	0.178**	0.014	-0.043	1								
K, N	7, 1186	11, 1847	8, 1186									
5 General Adj.	0.247**	0.049	-0.371**	0.518**	1							
K, N	11, 1990	15, 2678	7, 1095	21, 3148								
6 Interaction Adj.	0.443**	0.170	-0.124	0.424**	0.592**	1						
K, N	8, 1716	10, 2109	3, 343	10, 1699	17, 3410							
7 Work Adjustment	0.199**	0.015	-0.569**	0.246**	0.448**	0.462**	1					
K, N	9, 1763	8, 1564	7, 910	14, 2218	19, 3875	19, 3668						
8 Job Satisfaction	0.208**	0.244**	-0.557**	0.213**	0.343**	0.255**	0.435**	1				
K, N	8, 976	7, 975	7, 1345	12, 1841	16, 2399	7, 1162	11, 1853					
9 Intentions to Quit	-0.143**	-0.285**	0.317**	-0.172**	-0.300**	-0.166**	-0.301**	-0.414**	1			
K, N	6, 881	2, 361	3, 576	4, 483	13, 2104	9, 1415	11, 1894	13, 2224				
10Performance	0.288**	0.034	-0.351**	0.262**	0.258**	0.237**	0.406**	0.210**	-0.167**	1		
K, N	3, 399	5, 714	2, 396	4, 603	16, 2802	14, 2298	13, 2231	10, 1919	10, 1329			
11OC – Parent	-0.010	0.053	-0.290**	0.063	0.129*	0.118**	0.222**	0.327**	-0.280**	0.130	1	
K, N	1, 278	2, 599	2, 551	1, 278	3, 849	2, 599	3, 849	1, 78	1, 250	1, 197		
12OC – Foreign	0.140*	0.014	-0.334**	0.157*	0.298**	0.239**	0.365**	0.267**	-0.230**	0.200**	0.677**	1
K, N	1, 278	2, 599	2, 551	1, 278	3, 768	2, 518	3, 768	1, 78	1, 250	1, 197	4, 879	

K = Number of studies for each meta-analysis, N = Total sample size for each meta-analysis, Total N = 562 (Harmonic mean)
**p < .01 *p < .05

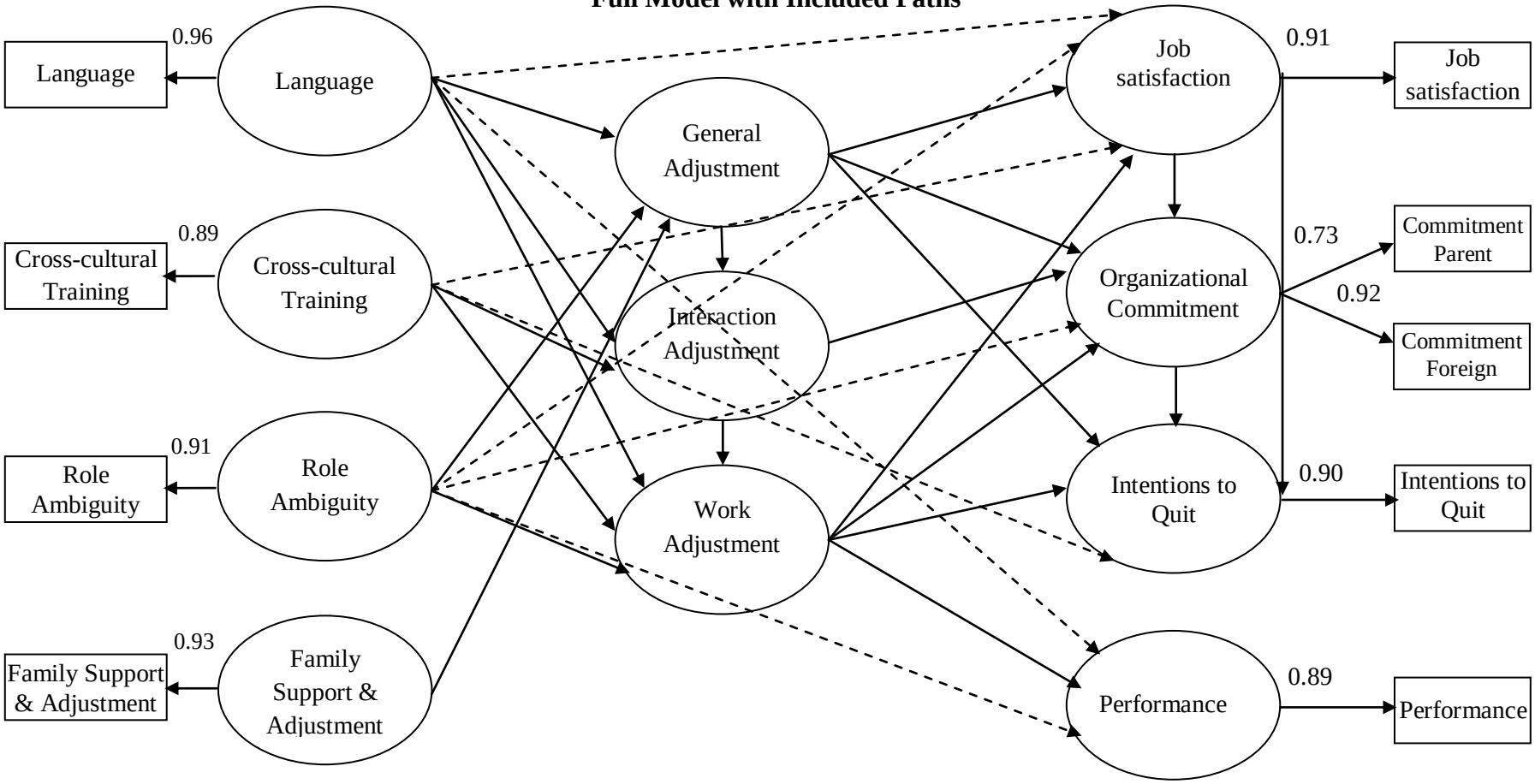
CCT = Cross-cultural training; RA = Role ambiguity; FSA = Family support & adjustment; OC = Organizational commitment

A separate correlation matrix was constructed including antecedents to test antecedents-adjustment-outcomes model. The relevant correlation matrix is presented in table 30. Total sample size for this model, as calculated through harmonic mean, is 562.

6.4.2.1 SEM results for antecedents-adjustment-outcomes model

I tested the effects of four antecedents on outcomes fully and partially mediated through adjustment. In fully mediated model, the links from antecedents to adjustment and from adjustment to outcomes were included but no direct links from antecedents to outcomes were included. This model did not show a good fit to the data with $\chi^2 = 314.21$ (DF = 29), RMSEA = 0.13, SRMR = 0.060, GFI = 0.92, CFI = 0.90, NFI = 0.89. Then a partially mediated model was tested where direct paths from antecedents to adjustment outcomes were also included. This is in line with the theory as antecedents show effects on the outcomes of adjustment. The meta-analysis results in this research have also shown significant effects of antecedents on the outcomes. This model showed a better fit with $\chi^2 = 104.18$ (DF = 13), RMSEA = 0.11, SRMR = 0.0297, GFI = 0.97, CFI = 0.97, NFI = 0.96. Finally, the partially mediated model was modified by following modification indices. The modified model fitted better than both of the previous models with $\chi^2 = 157.13$ (DF = 30), RMSEA = 0.087, SRMR = 0.0376, GFI = 0.96, CFI = 0.95, NFI = 0.94. Although, SRMR, CFI, GFI, and NFI values of the previous model indicate a slightly better fit for the previous model; the modified model is preferred because of parsimony and substantial drop in chi-square per DF and RMSEA values. The RMSEA value for the modified model shows a substantial drop and falls within the acceptable range. The RMSEA value for this model falls in the mediocre range according to the criteria proposed by MacCallum et al. (1996). However, RMSEA is very sensitive to large sample sizes and 'sometimes rejects well-fitting models because it is derived from the normal theory chi-square rather than from the residual correlation matrix' (Brown et al. 2008 p. 303). In certain situations, despite an unacceptably high RMSEA; indication of a good fitting model can be accurately made by residuals and SRMR (Brown et al. 2008). Thus SRMR is preferred. The modified model is also more parsimonious than the previous model.

Figure 5: Antecedents-Adjustment-Outcomes Model with Maximum Likelihood Estimation
Full Model with Included Paths



Broken lines show the links from antecedents to outcomes.
Continuous lines show the links from antecedents to adjustment; and from adjustment to outcomes.

***p < 0.01 **p < 0.05 *p < 0.10

Goodness of Fit Indices

DF = 30, χ^2 = 157.13 (P = 0.0), RMSEA = 0.0869, SRMR = 0.0376, GFI = 0.96, CFI = 0.95, NFI = 0.94

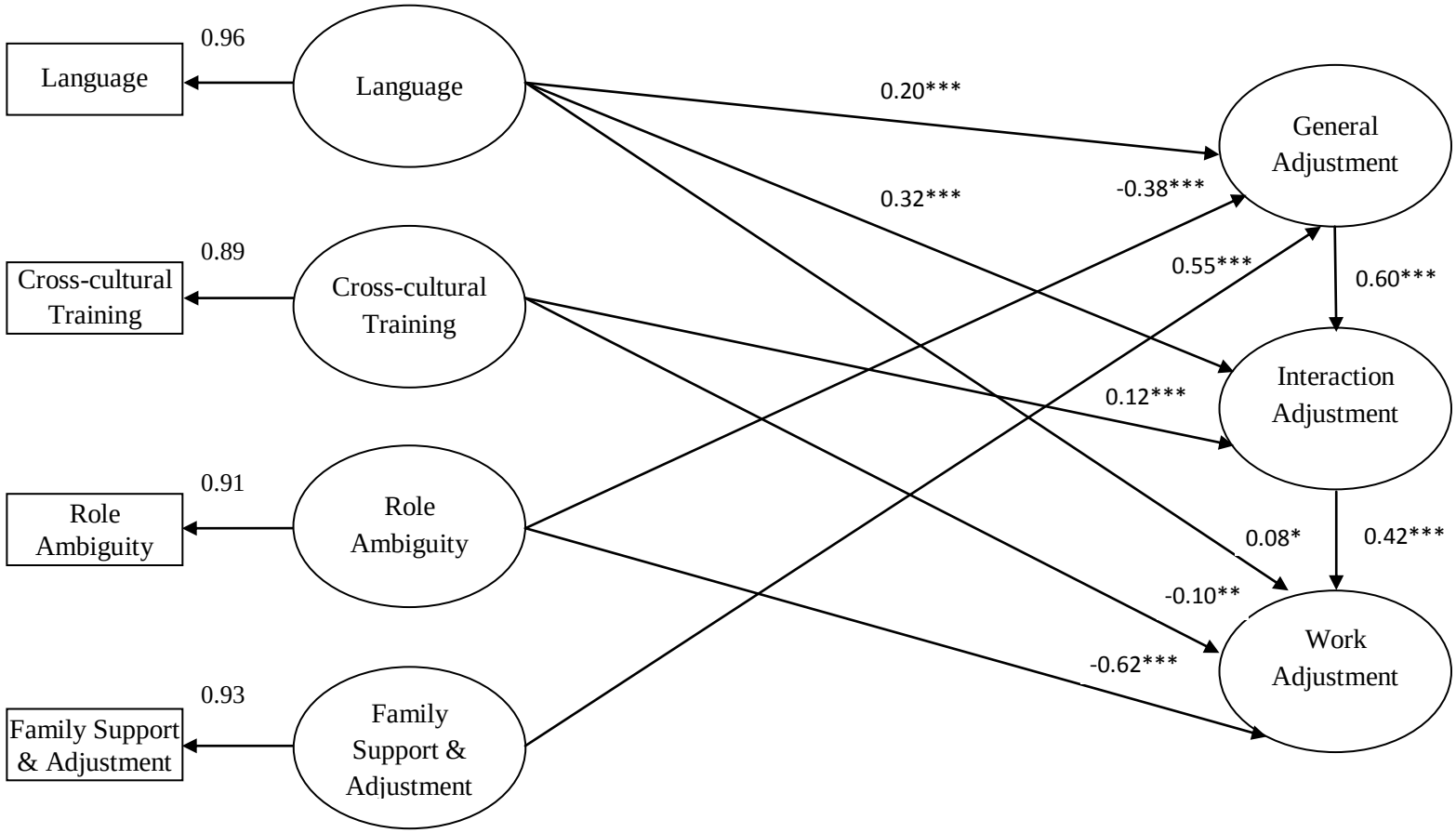
Overall, the modified model shows a good fit to the data according to Hu and Bentler (1999) joint criteria of model fit and also according to individual cutoff values as proposed by Jöreskog and Sörbom (1996).

The modified model is shown in figure 5. Owing to complexity of the model, the path estimates are shown in subsets of the figure 5 namely figures 5a, 5b, and 5c. The parameter estimates from completely standardized solution and respective t-values as well as standard errors are presented in table 31.

Table 31: Parameter Estimates (Antecedents-Adjustment-Outcomes Model)

Path from		to	Estimate	T-value	Std. Err.
Language	→	General Adjustment	0.20	5.04	0.04
Language	→	Interaction Adjustment	0.32	8.20	0.04
Language	→	Work Adjustment	0.08	1.79	0.04
Cross-Cultural Training	→	Interaction Adjustment	0.12	3.23	0.04
Cross-Cultural Training	→	Work Adjustment	-0.10	-2.54	0.04
Role Ambiguity	→	General Adjustment	-0.38	-9.59	0.04
Role Ambiguity	→	Work Adjustment	-0.62	-14.79	0.04
Family Support & Adjustment	→	General Adjustment	0.55	13.20	0.04
Language	→	Job Satisfaction	0.25	5.35	0.05
Language	→	Performance	0.29	5.71	0.05
Cross-Cultural Training	→	Job Satisfaction	0.24	5.75	0.04
Cross-Cultural Training	→	Intentions to Quit	-0.24	-4.83	0.05
Role Ambiguity	→	Job Satisfaction	-0.67	-9.22	0.07
Role Ambiguity	→	Organizational Commitment	-0.17	-1.58	0.08
Role Ambiguity	→	Performance	-0.24	-3.06	0.08
General Adjustment	→	Job Satisfaction	0.09	1.71	0.05
General Adjustment	→	Organizational Commitment	0.08	1.04	0.06
General Adjustment	→	Intentions to Quit	-0.13	-2.23	0.06
Interaction Adjustment	→	Organizational Commitment	0.05	0.56	0.07
Work Adjustment	→	Job Satisfaction	-0.06	-0.70	0.08
Work Adjustment	→	Organizational Commitment	0.19	1.84	0.08
Work Adjustment	→	Intentions to Quit	-0.08	-1.10	0.07
Work Adjustment	→	Performance	0.27	3.28	0.08
Job Satisfaction	→	Organizational Commitment	0.09	1.26	0.05
Job Satisfaction	→	Intentions to Quit	-0.31	-4.93	0.06
Organizational Commitment	→	Intentions to Quit	-0.12	-2.26	0.07

Figure 5 a: Antecedents-Adjustment-Outcomes Model – Showing Paths from Antecedents to Adjustment



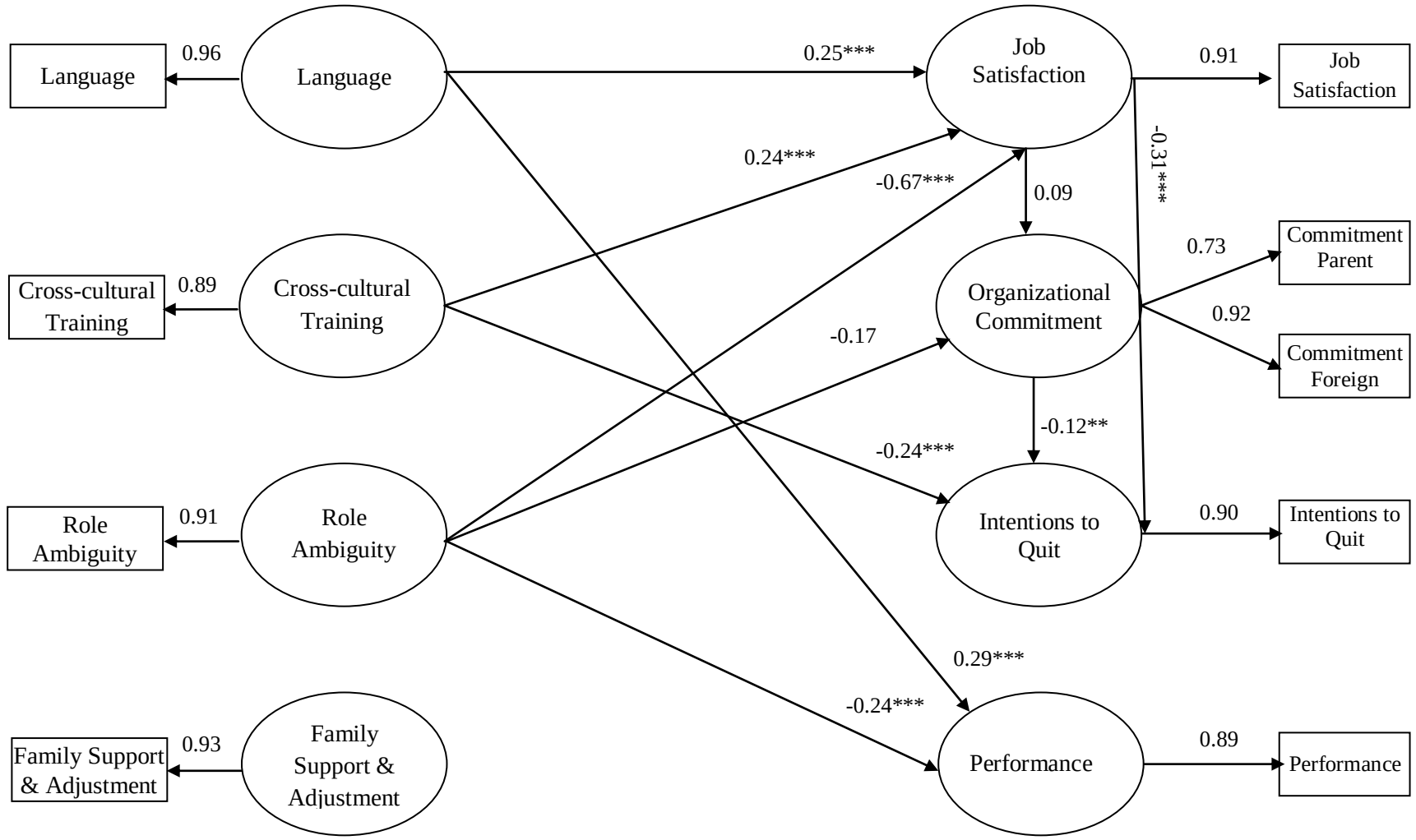
***p < 0.01 **p < 0.05 *p < 0.10

First, the path estimates for the effects of antecedents on general, interaction, and work adjustment are described. These are presented in figure 5a. The path estimates from language to general and interaction adjustment were positive and significant (0.20 and 0.32 respectively, $p < .05$); while, the path estimate from language to work adjustment was positive but not significant at a conventional .05 level (0.08, significant at $p < .10$). Thus, language showed positive effects on adjustment. The path estimate from cross-cultural training (CCT) to interaction adjustment was positive and significant (0.12, $p < .01$). However, surprisingly, the path estimate between CCT and work adjustment was negative and significant (-0.10, $p < .05$). This result is in contrast to the general understanding regarding efficacy of CCT. The negative effect can be attributed to insufficient and irrelevant training that can affect adjustment negatively. CCT, therefore, revealed mild effects on the adjustment. Role ambiguity had strong effects on general and work adjustment shown by negative significant path estimates between role ambiguity and general as well as work adjustment (-0.38 and -0.62, $p < .01$). The path estimate between family support & adjustment (FSA) and general adjustment was positive and significant (0.55, $p < .01$).

Overall, antecedents had significant effects on adjustment except CCT. Language and FSA had positive effects on adjustment, while role ambiguity had negative effect. The path estimates also confirm within-domain and cross-domain effects. Language and FSA (non-work antecedents) had significant effects on non-work related adjustment and role ambiguity had strongest effect on work-related adjustment; while role ambiguity also had significant effect on general adjustment showing cross-domain effects.

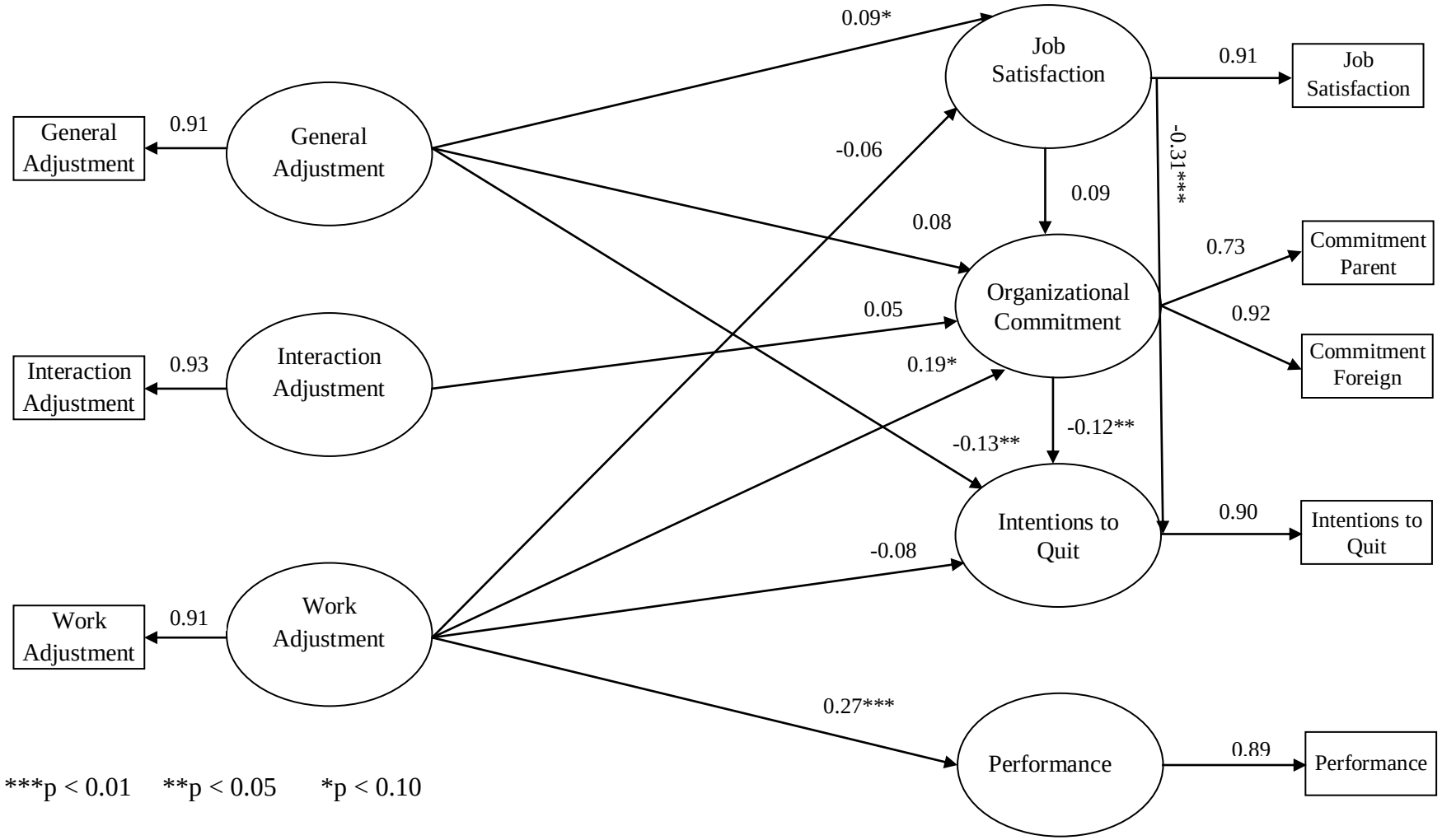
Second, the path estimates between antecedents and outcomes of adjustment are described. Antecedents showed significant effects also on the outcomes. The path estimates from language to job satisfaction and performance were positive and significant (0.25 and 0.29 respectively, $p < .01$). CCT had significant path estimates to job satisfaction and intentions to quit. The path estimate between CCT and job satisfaction was positive (0.24, $p < .01$); while between CCT and intentions to quit was negative (-0.24, $p < .01$).

Figure 5 b: Antecedents-Adjustment-Outcomes Model – Showing Paths from Antecedents to Outcomes



***p < 0.01 **p < 0.05 *p < 0.10

Figure 5 c: Antecedents-Adjustment-Outcomes Model – Showing Paths from Adjustment to Outcomes



The path estimates from role ambiguity to job satisfaction and performance were negative and significant (-0.67 and -0.24 respectively, $p < .01$). And the path estimate from role ambiguity to organizational commitment was negative but not significant (-0.17). Over all, language, CCT, and role ambiguity showed significant effects on outcomes; while FSA did not show significant effects on the outcomes of adjustment. The path estimates from antecedents to outcomes of adjustment are shown in figure 5b.

Third, the effects from adjustment to outcomes are presented. The path estimate from general adjustment to job satisfaction was positive but not significant at conventional .05 level (0.09, significant at $p < .10$); and from general adjustment to organizational commitment was not significant (0.08). The path estimate from general adjustment to intentions to quit was negative and significant (-0.13, $p < .05$). The path estimate from interaction adjustment to organizational commitment was positive but not significant (0.05). Work adjustment had a positive and significant path estimate to performance (0.27, $p < .01$); and the path estimate to organizational commitment was positive but not significant at conventional .05 level (0.19, significant at $p < .10$). The path estimates from work adjustment to job satisfaction and intentions to quit were not significant (-0.06 and -0.08 respectively).

Finally, as far as paths within outcomes are concerned, the path estimate from job satisfaction to intentions to quit was negative and significant (-0.31, $p < .01$); while from job satisfaction to organizational commitment was not significant (0.09). The path estimate from organizational commitment to intentions to quit was also negative and significant (-0.12, $p < .05$). The path between organizational commitment and performance was not included in this model because it was found to be non-significant in adjustment-outcomes model and was subsequently removed from the model. The path estimates between adjustment and outcomes and within outcomes are shown in figure 5c.

The three adjustment variables, which were exogenous constructs in adjustment-outcomes model, became endogenous in this model. The links from general adjustment to interaction adjustment; and from interaction adjustment to work adjustment were also included in this model. The path estimate from general adjustment to interaction adjustment was positive and significant (0.60, $p < .01$); and so was the path estimate from interaction adjustment to work adjustment (0.42, $p < .01$).

Overall, the antecedents-adjustment-outcomes model show moderate to strong effects of antecedents on adjustment as well as on outcomes. Adjustment also shows some significant effects on outcomes.

6.4.2.2 Squared multiple correlations for measurement and structural equations

For this model, squared multiple correlations (R^2) for measurement equations are given in table 32:

Table 32: Squared Multiple Correlations for Measurement Equations (Antecedents-Adjustment-Outcomes Model)

Indicator (Manifest Variable)	Squared Multiple Correlations
General Adjustment	0.84
Interaction Adjustment	0.86
Work Adjustment	0.82
Job Satisfaction	0.83
Intentions to Quit	0.80
Performance	0.80
Commitment to Parent Company	0.54
Commitment to Foreign Company	0.85
Language	0.93
Cross-Cultural Training	0.78
Role Ambiguity	0.83
Family Support & Adjustment	0.87

The squared multiple correlations for indicators of all the constructs range from moderate to high showing that the manifest variables are good indicators of their respective latent variables.

Table 33: Squared Multiple Correlations for Structural Equations (Antecedents-Adjustment-Outcomes Model)

Construct (Latent Variable)	Squared Multiple Correlations
General Adjustment	0.56
Interaction Adjustment	0.59
Work Adjustment	0.69
Job Satisfaction	0.58
Intentions to Quit	0.35
Performance	0.33
Organizational Commitment	0.22

Squared multiple correlations for structural equations for antecedents-adjustment-outcomes model are presented in table 33. The squared multiple correlations show that a substantial amount of variance in each dependent construct is explained by its independent constructs. Some values are modest (e.g. for organizational commitment), but nonetheless, still a reasonable amount of variance is explained in the dependent latent variable by independent variables.

Composite reliability and average variance extracted values for the constructs in antecedents-adjustment-outcomes model were comfortably above the desired levels. This shows that a considerable amount of variance in indicators is explained by the underlying construct and the indicator(s) of each construct provide a reliable measurement of the underlying latent variable (construct).

Chapter 7
Discussion and Conclusion

7.1 Discussion of the Results

This research provides important insights regarding the effects of certain antecedents on expatriate adjustment. This research aggregates the empirical literature on impact of four antecedent variables: language, role ambiguity, cross-cultural training, and family support & adjustment, on expatriate adjustment and outcomes of the adjustment. Knowledge of the language of host country, cross-cultural training, and family support & adjustment show a positive effect on expatriate adjustment. Among these variables, cross-cultural training reveals weak and mostly non-significant effects while language and family support & adjustment reveal moderate to strong effects. Role ambiguity shows strong negative effects on expatriate adjustment.

7.1.1 Effects of antecedents on expatriate adjustment

The results emphasize the importance of host country's language knowledge for adjustment at the host location. Language was correlated to interaction adjustment most strongly ($\rho = 0.443$) which shows importance of the language knowledge for interaction with the natives. Correlation of the language to work adjustment ($\rho = 0.199$), however, was far lower than both to interaction and general adjustment showing comparatively less importance of language for work adjustment.

In the context of within-domain and cross-domain effects; it was expected that language, being a non-work antecedent of expatriate adjustment, will correlate strongly to non-work facets of adjustment rather than with work-related facets of adjustment. The meta-analysis results confirm this expectation. Here, language (non-work antecedent) shows stronger effects on general and interaction adjustment (non-work adjustment) than on work-related facets of adjustment. Language, however, also shows cross-domain effects by affecting work adjustment, job satisfaction, and performance (work-related adjustment). But the effects of language are smaller on work-related adjustment. The correlation between language knowledge and work adjustment may be lower because expatriates are mostly sent to occupy key and technical

positions which do not involve a lot of communication with local employees or customers and are not affected by the lack of language fluency a lot.

The positive effect of language knowledge on adjustment shows that it can greatly facilitate the adjustment process by eliminating or reducing the stress that is emerged as a result of lack of communication with the host nationals. Thus, it helps in daily general life and in interacting with the local people. It also facilitates adjustment to the work because it improves communication with the local employees, customers, etc.

Language was also significantly correlated with outcomes of adjustment showing importance of language for the consequences that can be vital for the organization. It shows that knowledge of the language of host country improves job performance and also contributes to the job satisfaction. As language ability helps expatriates to get rid of stress and frustration, they tend to stay at the host location and feel better committed to the organization. Thus, it helps to reduce intentions to quit and enhances the level of organizational commitment.

A moderating variable regarding language, host country language – English versus not English, was also examined. This moderator revealed a significant effect on correlation of the language with interaction and work adjustment. Higher correlation between language and adjustment was found for expatriates who were expatriated to English-speaking countries. It shows that language can greatly assist in adjusting to the host culture.

Cross-cultural training showed weaker and mostly non-significant correlations with majority of the adjustment indicators. It was not significant for any of the three primary facets of adjustment except for interaction adjustment ($\rho = 0.170$) where it was significant at .10 level. In outcomes of adjustment, it was significant for job satisfaction and organizational commitment. One potential explanation that can be offered for the weak effects is insufficient and irrelevant cross-cultural training delivered to the expatriates. Unfortunately, most of the primary studies do not provide data regarding nature, length, and contents of the delivered cross-cultural training. In some studies, the expatriates were only asked if they were offered cross-cultural training or not. And in many cases, the expatriates were gone through only a few days long cross-cultural training, only one-day long in some instances. So it is expected that nature and length of the cross-cultural training greatly affects its outcomes. Another explanation is that as cross-cultural training is non-work related and covers mostly areas regarding language and culture of the host country; thus it is somewhat significantly correlated to interaction adjustment and not to work

adjustment. These results are in contrast to the general understanding of the benefits of cross-cultural training and also to the results of previous earlier meta-analyses which found significant effects.

Cross-cultural training showed significant correlations with two adjustment outcomes i.e. job satisfaction and organizational commitment. It shows that expatriates who are prepared for international assignment through cross-cultural training may be better satisfied with their jobs at the host location; and cross-cultural training can strengthen expatriate employee's commitment to the parent organization. This is because an expatriate may acknowledge it as a supportive activity performed by the parent organization to facilitate his/her adjustment at the host location. Therefore, it will enhance levels of commitment to the parent organization.

Role ambiguity was strongly and negatively correlated to almost all of the adjustment variables. It revealed large correlations except for interaction adjustment (ρ = -0.124), where it was small. The strongest correlation of role ambiguity was found with work adjustment (ρ = -0.569). This is quite intuitive and again confirms within-domain and cross-domain effects because role ambiguity (work-related antecedent) is also correlated to non-work related outcomes; however, its strongest correlation is with work adjustment (work- related outcome). It shows prime importance of clarity regarding one's role at the host location for adjustment.

Ambiguity regarding new work role causes uncertainty and uncertainty inhibits adjustment. As role ambiguity mostly stems from lack of understanding regarding new work role, it affects work adjustment more strongly than general and interaction adjustment. In case if the expatriate is not given a realistic preview of his/her role at the host location, adjustment to the work role becomes difficult. This maladjustment may spillover to general and interaction adjustment resulting in a bad impact also on outcomes of the adjustment. Lack of clarity and uncertainty regarding one's work role causes dissatisfaction from the job and also leads to poor performance. So it is extremely important that the expatriate is given a clear job description and explanation regarding the new work role at host location.

Family support & adjustment revealed strongest correlations with all three facets of adjustment and adjustment outcomes. The strongest correlation (ρ = 0.518) was with general adjustment. The common problems that are shared by the expatriate and his/her family mostly pertain to the general everyday life and not to the work life. It reflects prime importance of role of the family in adjustment to general living conditions at the host location. This finding is in

accordance with previous research where family problems have been found to be a major reason of expatriate adjustment failure. Maladjustment of the family has been regarded as one of the most common reasons of adjustment failure (Tung 1981, 1982). The corrected mean correlation between family support & adjustment and work adjustment is almost half than its correlation with general adjustment ($\rho = 0.246$ for work adjustment as compared to $\rho = 0.518$ for general adjustment). It shows strong effect of family support & adjustment on general adjustment and comparatively less strong an effect on work adjustment. Spouse and family provide support and affection that help an expatriate to cope with the stress associated with the new work role. Spouse may help in an expatriate's confidence building and may help expatriate to focus on work by freeing him/her from the burden of logistical and relocation issues.

7.1.2 Effects of expatriate adjustment on outcomes of the adjustment

The results also clearly reveal moderate to strong impact of expatriate adjustment on outcomes of adjustment. The results show that well-adjusted expatriates experience higher levels of job satisfaction, which in turn, is an important outcome and is vital in achieving organizational goals. Better adjusted expatriates feel satisfied with their general life. This satisfaction also enhances levels of satisfaction with the job. Similarly, adjustment to interaction with the host nationals also helps in satisfaction with the job. Outside the workplace, it enhances job satisfaction by improving overall adjustment level and reducing the levels of frustration. While better interaction with the host nationals in work environment improves communication with the host country work force and the customers and this directly facilitates satisfaction with the job. Work adjustment, obviously, facilitates satisfaction with the job as work adjustment lies in the same domain i.e. work domain, as job satisfaction. An international assignment depicts a new work role and adjustment to the new work role creates satisfaction with the job.

Expatriate adjustment also has strong impact on expatriate job performance. It shows that well-adjusted expatriates perform better while maladjustment leads to poor performance. Well-adjusted expatriates are not burdened by higher levels of stress and strain. This leaves them with higher levels of energy and resources to fulfilling job tasks and eventually to performing better at the host location. General adjustment and interaction adjustment help to reduce the feelings of frustration and stress and the resulted satisfaction influences work attitudes positively and it improves job performance. Adjustment to interacting with the host country nationals at

workplace (e.g. local employees and local customers) facilitates job performance because better communication with the local employees and other stake holders helps in achieving the organizational goals. Effective communication with the local customers, especially in sales or marketing intensive assignments, can greatly contribute to the performance of expatriate manager. Adjustment to the new work role also results in better performance at the job.

As explained earlier, job performance construct is segregated into task performance and contextual performance. It was hypothesized that work adjustment will affect task performance more strongly; and general and interaction adjustment will affect contextual performance more strongly. The results confirm this hypothesis. Work adjustment shows stronger correlation with task performance that is almost double than the correlations of general and interaction adjustment with task performance ($\rho = 0.443$ for work adjustment as compared to 0.228 and 0.193 for general and interaction adjustment respectively). Work adjustment has stronger effect on task performance because task performance refers to core activities of a job at the international location and adjustment to the work helps conducting core activities of the job. While contextual performance refers to the environment in which core activities take place. Interaction adjustment has the strongest correlation with the contextual performance. General and, especially, interaction adjustment facilitate shaping the social and psychological environment in which work activities take place. Thus, they affect contextual performance strongly. Again, in line with expectations regarding within-domain effects, work adjustment had stronger effect on job satisfaction and performance as compared to the effects of general and interaction adjustment.

Adjustment showed positive impact also on organizational commitment. Adjustment makes expatriates feel satisfied at the host location and it enhances their identification with the organization. As a result, they tend to put more effort in their jobs and perform better and show higher levels of commitment. Expatriates make personal investments by exerting efforts to adjust to the host country culture. As a result of this investment that they have made through putting effort for the adjustment, they tend to stay with the organization and show commitment to the organization. It was hypothesized that adjustment will have stronger effect on organizational commitment to the foreign company than on organizational commitment to the parent company. The results confirm this hypothesis and show that corrected mean correlations of adjustment with commitment to the foreign company are almost double than those with commitment to the parent

company. It can be explained through investment perspective as described earlier. In an expatriation context, personal investments e.g. efforts to learn foreign language and cultural norms, etc., are focused on integration at the host location, and not at the parent organization thus raising commitment levels for the foreign subsidiary. Adjustment, however, also have positive effect on organizational commitment to the parent organization. This is because expatriates may attribute their adjustment to the facilitation provided by the parent organization; and thus may feel committed to the parent organization, though, not to the same level as to the foreign company.

Adjustment showed negative impact on intentions to quit of an expatriate. It means that adjustment eases the stay of an expatriate at the host location and maladjustment leads to the intentions to quitting the job. Maladjustment leads to stress and stress may lead to negative attitudes including intentions to quit. Well-adjusted expatriates do not face higher levels of stress and uncertainty. They are, thus, less vulnerable to having intentions to quitting the international assignment and/or the organization. Maladjustment either to general life, to interaction with host nationals, or to work-related activities can be responsible for intentions to quit. Work-related maladjustment can be directly responsible for intentions to quitting the international assignment. While maladjustment to general living and to interaction with the host nationals may also spillover into work life and can result in intentions to quit.

Job satisfaction revealed strong negative effect on intentions to quit. As mentioned earlier, this negative effect can be explained through an exchange perspective. According to this perspective, expatriate employee and organization work in an exchange relationship where expatriate employee works towards fulfillment of the organizational goals and in turn, organizations fulfill expatriate's social and personal needs. A successful execution of this exchange makes expatriates satisfied with their jobs and they tend to stay and finish the international assignment. That's why better satisfied expatriates are more likely to stay and have lower levels of intentions to quitting the international assignment and/or the organization.

Job satisfaction showed strong positive effect on organizational commitment. Better satisfied expatriates are motivated and committed to stay at host location and to complete their assignments and are better committed to the organization.

Organizational commitment showed strong negative impact on the intentions to quit. Maladjustment at host location, either due to general living conditions or due to work role

problems, causes stress and dissatisfaction from the job. This dissatisfaction leads to decreased levels of organizational commitment and this damaged organizational commitment may lead to withdrawal intentions regarding the assignment and/or the organization.

Organizational commitment had positive impact on expatriate job performance. Difficulties at the host location lead to lower level of organizational commitment and subsequently make expatriate psychologically withdrawing from the international assignment. On the other hand, expatriates who are committed to the organization are aligned towards the organizational goals. They possess right level of motivation to stay at the international assignment and achieve the organizational goals and hence, they tend to perform better.

7.1.3 Effects of moderating variables

The moderators' examination reveals very interesting insights too. Many moderating variables are found to be in operation, and it throws light on the circumstances under which certain relationships become high or low.

Length of stay at the host location showed mixed moderating effects. Studies with samples having shorter duration of stay at host location showed higher correlation for CCT to interaction adjustment relationship. This indicates the importance of cross-cultural training in earlier period of the stay and emphasizes that training is more effective during beginning of the stay. While as the time passes, benefits of the received cross-cultural training become less important. The moderating effect was in opposite direction for the relationship between family support & adjustment and general adjustment i.e. studies with samples having longer duration of stay at host location showed higher correlation than the shorter duration studies. This shows a stabilizing effect of the family on expatriate adjustment in the long run. Non-availability of the enough data can be a reason for only a few significant effects. For this variable, data were not available for all the studies thus making a thorough examination difficult. This moderator also affected a couple of relationships between adjustment and outcomes with mixed directions of moderating effect.

In USA versus non-USA sample, the studies consisting of non-USA sample revealed higher correlations as compared to the studies based on expatriate samples originated exclusively from the USA. Non-USA samples mostly consisted of the expatriates from a mix of different nationalities. A higher correlation may exist because of a mix of different cultural backgrounds

of the expatriates and their different views and behaviors regarding the international assignment. Moreover, adjustment for the USA expatriates in poor or third world countries can be difficult; while adjustment for the expatriates from third world countries to the first world countries may be easier.

Multi country versus single country of expatriation moderator also seemed to have an impact. Studies with samples drawn from a single country of expatriation mostly showed higher correlations than the studies with samples drawn from multiple countries of expatriation. The reason can be that in single country studies, whole sample was drawn from a single host country and hence from a single culture. In the context of a specific culture, certain antecedents can become more important. For instance, this moderator was found significantly affecting the relationship between language to interaction and work adjustment; and language can become important in specific countries, for example in China. On the other hand, in multiple countries of expatriation, samples are drawn from different countries. In that case, different variables can be important in different cultures thus dragging overall correlation to a lower level.

Another interesting moderator effect was found regarding the age of the expatriates. Almost all of the significant relationships showed higher correlations for the studies employing younger expatriate samples than for the studies employing older expatriate samples (average age). This can be attributed to enthusiasm and openness of the younger people to explore new cultures. Moreover, four of the significant relationships were pertaining to cross-cultural training. It shows that cross-cultural training is especially beneficial for younger people who are more energetic, enthusiastic, and open to accept assignments in the foreign countries. The relationship between language and interaction adjustment also revealed higher correlation for younger samples than for older samples. Again, it may be due to enthusiasm and energy of the younger expatriates to learn new language as compared to the older expatriates.

Length of tenure with the parent organization also seemed to moderate relationships between variables under consideration. The direction of moderating effect was mixed thus making it difficult to draw meaningful conclusions. One reason for non-significant effects is lack of sufficient data. The organizational tenure data were not available in all the studies and this moderator needs to be studied thoroughly with the help of comprehensive data.

For self versus external measures of assessment, studies with the external measures of assessment mostly showed higher correlations than studies with the self measures of assessment.

Some relationships also revealed correlations in opposite direction but they were not significant. This is in contrast to the general understanding that self measures of assessment generally tend to inflate correlations due to common method variance. Generally, the spouses and the supervisors were used as the sources for the external assessment. It can be expected that these sources provided realistic assessment of the variables that were highly correlated.

For the moderator host country language – English versus not English, the results supported the expectation that the studies with samples expatriated to English-speaking countries will reveal higher correlations than the studies with samples expatriated to non-English speaking countries. Out of the significant relationships, two relationships (language to interaction as well as work adjustment) were pertaining to language thus indicating importance of knowledge of the English language for adjustment in English-speaking countries. It shows the importance of language. As English is a frequently learnt language, the strong impact of English knowledge on adjustment is highly marked in studies employing samples expatriated to English-speaking countries.

Previous international experience showed significant effect only for one relationship, cross-cultural training to interaction adjustment. It was in the hypothesized direction, i.e. studies with expatriates having longer previous international experience revealed higher correlation than the studies with expatriates having shorter previous international experience. It shows that previous international experience can benefit expatriates to adjust to a new international assignment; and cross-cultural training can be beneficial for expatriates having previous international experience. The data, however, were not available for all the studies; and thus, moderating effect could not be analyzed for many relationships. Firm conclusions are, therefore, difficult to be reached upon.

For publication status, as hypothesized, mostly published studies revealed higher correlation than unpublished studies. This can be explained with reference to the publication bias, where studies with significant findings are preferred for publishing as compared to the studies with non-significant findings.

7.1.4 Structural paths between antecedents, adjustment, and outcomes

The structural models show important causal relationships between antecedents, adjustment, and outcomes and between outcomes themselves. It helps to explain the expatriation process in detail

that has not been done on the individual study level. The adjustment-outcomes model shows that general adjustment, although non-work facet of adjustment, is an important antecedent for many decisive outcomes of the adjustment. Work adjustment had the strongest influence on performance and job satisfaction, while interaction adjustment showed mild effect on performance. The adjustment-outcomes model shows that adjustment leads to important outcomes which ultimately decide the fate of the international assignment.

The structural model evidence from antecedents-adjustment-outcomes model further corroborates that four selected antecedents play an important role in expatriate adjustment and also influence adjustment outcomes. The paths showed significant effects of antecedents, except cross-cultural training, on adjustment as well as on adjustment outcomes. This model establishes criticality and centrality of expatriate adjustment in the expatriation process. Adjustment is central factor in the expatriation process that follows the antecedents and precedes the outcomes of adjustment that in turn translate into the final success or failure of the assignment.

Overall, the models show that adjustment influences important outcomes that are vital for achievement of organizational goals. Within outcomes, the causal relationships show that the job satisfaction can be considered as a proximal outcome that influences more distal outcomes i.e. organizational commitment and intentions to quit. It shows that satisfaction with job is helpful in getting rid of withdrawal intentions and that satisfied expatriates are better committed to the organization. Negative causal effect of organizational commitment on withdrawal intentions shows that better committed expatriates tend to stay and complete the assignment and are less inclined towards quitting the international assignment.

7.2 Limitations and Suggestions for the Future Research

7.2.1 Limitations

Before discussing limitations of this research, some strengths of the research are pointed out.

The sample size (number of primary studies used for analysis) in this meta-analysis is far larger than previous meta-analyses in the field. The sample size is two to three times larger than previous meta-analyses given the number of antecedents tested. Furthermore, in this research, many methodological and theoretical moderators are examined. The moderating effects of many study and sample characteristics are also examined. The moderators are not examined in detail in

previous reviews and primary research studies. Moreover, multiple statistical analytical techniques are used. After performing meta-analysis, the causal links between antecedents, adjustment, and outcomes are tested through structural equation modeling. As far as methodology is concerned; some methodological issues, which are faced by the researchers while conducting meta-analytic structural equation modeling, are tried to be addressed. I tried to mitigate the problem of heterogeneity of correlations and of input of correlation matrix instead of covariance matrix for MA-SEM as explained earlier.

This study has certain limitations owing to this study itself as well as to the underlying studies used in the analysis.

First of all, nearly all the included studies used survey methods for research; experimental studies are scarce in the expatriate literature on a whole. Only a few experimental studies are found in expatriate empirical literature and they are mostly pertaining to the effects of the cross-cultural training. In future, experimental studies should also be conducted in addition to survey research. Through experimental studies, the effects of different support activities can be examined on the expatriate adjustment.

Second, majority of the studies are cross-sectional in nature and, therefore, render drawing causal inferences difficult. More longitudinal research is needed in this area.

A major limitation owing to this study itself pertains to insufficiency of the data. Only a few studies were available for certain relationships. And especially for moderating variables, sufficient data were not available for all of the moderators. Future research may pursue analysis with sufficient data at hand.

Moreover, the data for duration and type of the cross-cultural training were not available in the primary studies. A clearer prediction regarding the role of cross-cultural training can be made provided that the data regarding nature and contents of cross-cultural training are available.

Some limitations also stem from methodological issues. As described earlier, meta-analytic structural equation modeling (MA-SEM) presents certain challenges that may compromise interpretation and may limit the generalizability of the results. The methodological limitations regarding the use of MA-SEM include issues with the sample size, heterogeneity of the correlations, and input of the correlation matrix instead of covariance matrix. In this research,

appropriate measures are taken to mitigate these problems. Future research may address these issues by advancing the methodology.

7.2.2 Suggestions for the future research

The findings from this research can help in formulating new models for the study of individual, work, non-work, and organizational predictors of expatriate adjustment and the findings can help in advancing the theory.

Longitudinal research is needed in the field of expatriate adjustment because adjustment grows overtime and, according to many researchers, follows a U-curve pattern (e.g. Black and Mendenhall 1990). Unfortunately, longitudinal research is scarce in expatriate empirical literature. Only less than 5 percent of empirical studies are longitudinal in nature (Bhaskar-Shrinivas et al. 2005) in the field of expatriate management. As far as data set for the present research is concerned, only 2 samples relied on longitudinal research design. Longitudinal research design is important because of the dynamic nature of expatriate adjustment process. The impact of many antecedents varies over time. Some antecedents may be important in the initial period of international assignment, while some others may become valuable only after certain time has elapsed. It is also beneficial for drawing true causal inferences. The ultimate consequences of adjustment, which are vital for conclusion of the international assignment, mature over time and may manifest themselves only after a considerable period of time. For example, maladjustment leads to intentions to quit in an expatriate's mind but these intentions may take a long time to materialize due to a number of issues.

Common method variance is also a problem in the empirical expatriate literature. Many empirical researchers use a single source, usually the expatriate itself, to get information regarding both antecedent and adjustment variables. It can result in biased results because self-assessment can be misleading in many cases. For example, self-rating by the expatriate for measurement of job performance or family adjustment can be biased. In this research, I have successfully attempted segregating the studies employing same source for assessment and the studies employing multiple sources for assessment and have established significant moderating effect. It is, however, important to mitigate this problem at the individual study level by using multiple sources e.g. spouses, supervisors, coworkers, etc., for assessment.

Another step for the future research should be to use the actual turnover data instead of using turnover intentions as a proxy for the actual turnover. Difficulty in getting the actual turnover data is a reason for reliance on turnover intentions instead. Overcoming this problem, however, can help in exploring the impact of antecedents and adjustment on actual turnover; because in many cases, actual turnover does not follow turnover intentions because of a number of career and self-prestige concerns.

Future research should also focus on the impact of cross-cultural training on expatriate adjustment. Detailed research on effects of cross-cultural training should be conducted while taking into account its duration, type, topics covered, etc., to get a realistic evidence.

Heterogeneity in correlations suggests that moderators may be operating. In this research, many moderating variables are addressed and are found exhibiting significant effects. Future research may focus on the moderating variables proposed in this study and may strive to assess their impact with sufficient data. Future research should also include moderators other than examined in this study depending on the availability of relevant data in the primary studies. For example, moderating effect of anticipated length of assignment can be examined as suggested by Bhaskar-Shrinivas et al. (2005). This moderator may exhibit interesting and important effects because expatriates' approach and efforts towards adjustment at the host location may change dramatically with the anticipated length of the assignment. Expatriates may pay less attention to the adjustment if assignment is of short-term nature. While in case of a long-term international assignment, expatriates may focus on adjustment and may be willing to put more efforts to achieve this goal. This moderator could not be addressed in this research because of non-availability of sufficient data. Moderating variables can also be examined at primary study level. Exploring moderators in depth can be a promising way for theoretical advancement. With sufficient data at hand, multi-group structural modeling can be conducted on the basis of different moderators.

Future research should attempt to perform meta-analysis, moderator analysis, and MA-SEM with sufficient data. With sufficient number of studies for each relationship, generalizability of the results may be enhanced.

Covariance matrices can be constructed by using standard deviation estimates of the variables which are measured with same scale of measurement across different primary studies.

In future, researchers should clearly describe scale for measurement of variables in the primary studies.

7.3 Practical Implications

This research develops many evidence-based practice recommendations for the managers:

This research provides important insights that can bring improvement in the expatriate selection mechanism. More than half of the multinational organizations do not have structured procedures in place for selection of the expatriates. Ninety two percent organizations rely on the recommendations of the managers, and only less than ten percent use any type of screening for selection of the expatriates (Hechanova et al. 2003). Expatriates are traditionally selected on the basis of the technical competencies. No doubt, technical skills are important for the international assignments; this research, however, finds that other factors like host country's language knowledge and family issues are imperative for successful assignment. Organizations may consider those employees for international assignment who are already familiar with language and culture of the prospective host country.

As discussed in literature section, family plays a very important role in adjustment of the expatriate at the host location. The results of this research also corroborate the central role of family in expatriate adjustment. It is, therefore, necessary for the organizations to pay attention to expatriate family issues. Organizations must provide maximum support and assistance for adjustment of the spouse/family at the host location. The organizations should facilitate the relocation process and should provide necessary logistical help. They should also provide assistance regarding housing, health care, and children's education. Spouse career support is also an important area where organizations can help. Spouses having a career back in home country may feel frustrated on losing or discontinuing their careers. Organizations can assist in seeking employment for the spouse at the host location.

As explained earlier, careful planning for the cross-cultural training is necessary to get the desired results. It must include detailed information regarding culture and living of the host country. It must also include language training because language ability can assist adequately in adjustment process. The cross-cultural training may include short pre-move visits to the host

country to gather familiarity for future stay. Families should not be neglected and they should also be included in training and language programs.

Ambiguity regarding the new work role at the host location has been found to be a major obstacle in the adjustment. Clarity about one's work role is crucial to adjustment to the work, while ambiguity regarding work role can be detrimental for adjustment to new work role. Role ambiguity creates the feelings of uncertainty and frustration. Expatriates, therefore, must be provided with a clearer preview of the new work role. The organizations should clearly communicate the job responsibilities, goals of assignment, performance evaluation standards, etc., about the work role at host location. Clarity about the work role reduces the uncertainty and assists in the adjustment, especially adjustment to the working conditions.

This research also carries important practical implications for the expatriates. Expatriate employees must prepare themselves for the international assignment by getting familiarity regarding new language and culture. They can also make use of self-initiated cross-cultural and language training in case it is not provided by the organization. Expatriate should also discuss with family about international move and accompanying challenges.

Overall, organizations should facilitate adjustment process in every way so that the expatriates perform better, remain willing to finish the international assignment, and stay committed to the organization.

7.4 Contributions of the Research

7.4.1 Contributions of meta-analysis in general

Meta-analysis is not only a quantitative summary of research findings on a particular subject, but is also a vital tool for theoretical advancement. Eden (2002) points out that meta-analyses can and do contribute to the theory development. Meta-analysis contributes to the theory in many ways:

Meta-analysis helps to assess the validity of existing theories. Many fields of study assume it as a "signature method" that evaluates aggregated findings from a research stream; and also provides guidance for further research and practice (Combs, Ketchen, Crook, and Roth, 2011). It assesses the validity of theories by determining an accurate estimate of strength of the relationships defined by a theory (Rauch and Frese 2006). And a theory can be tested through

meta-analysis that is difficult to be tested through other methods (Crook, Ketchen, Combs, and Todd 2008).

Meta-analysis helps to assess the cumulative evidence regarding a theory or the concept. It is expected to provide ultimate assessment regarding the validity of a theory, as Hunter and Schmidt (2004) call meta-analysis as the provider of truth. Meta-analysis allows controlling for statistical artifacts that are present in primary studies and, therefore, meta-analysis results are free from sampling error, reliability error, range restrictions, etc.

A comprehensive meta-analysis helps guiding future research into areas of particular importance (Rauch, Wiklund, Lumpkin and Frese 2009). It can point to certain issues that warrant additional investigation. Thus, meta-analysis can also play an important role to develop the theories.

By allowing estimation of the magnitude of relationships, meta-analysis gives concrete and comparable assessments of the validity of concepts (Rauch and Frese 2006). An important advantage is the possibility to test for the variations in relationships across the studies. It, therefore, helps in assessment of generalizeability of the effects. If there are large variations and effect sizes are heterogeneous across the studies, it shows presence of the context conditions accounting for the heterogeneity of effect sizes across the studies (Rauch and Frese 2006). Therefore, we need to know more about the situations where certain relationships happen to be high or low. These context conditions are moderators that result in variation in the effect sizes across studies.

The moderators can include methodological moderators, theoretical moderators, study and sample characteristics, etc. By allowing moderator examination; meta-analysis makes it possible to test contingency theories and also comparing the theories with competing assumptions (Rauch and Frese 2006). Meta-analysis can also provide new evidence; it can contribute to the theory by examining the moderators that are not examined in the primary studies. It provides guidance regarding development of theories that include moderators of relationships. It opens new areas for research, for example, if meta-analysis finds heterogeneous relationships, future studies need to identify moderators.

Regarding managerial issues, meta-analysis develops evidence-based practice recommendations. It develops evidence-based best practices and may recommend how to intervene in the given situations. Meta-analysis may lead to the evidence-based management

which is strongly needed in the literature and is a practical tool for theory development (Unger, Rauch, Frese, and Rosenbusch 2011).

Another advantage of meta-analysis is that it focuses on effect size instead of statistically significant findings (Eden 2002). Focusing merely on statistical significance can be misleading. Larger samples can produce statistically significant effects even though they have no significant managerial implications (Cohen 1969). By focusing on meta-analytic effect sizes, researchers can judge if effects are managerially important or not (Hunter and Schmidt 2004).

7.4.2 Contributions of the present research

A number of theoretical, methodological, and empirical contributions can be derived from this research:

This research offers a quantitative assessment of the empirical research regarding expatriate adjustment. This research assesses validity of the theories regarding effects of the antecedents of expatriate adjustment. Through this research, I attempt to clarify the impact of certain antecedents which carry inconsistent findings in the previous research. Many antecedents of expatriate adjustment hold inconsistent support in the empirical literature. Overall, more than fifty percent significance tests fail to establish the significant support for an antecedent. Even for the antecedents for which a significant effect has been established, the true magnitude of the relationship remains ambiguous. The accurate estimate of the level of support for selected antecedents is determined by estimating the true magnitude of the effect sizes. Accuracy of the meta-analytic effect sizes is ensured by controlling for sampling and measurement errors. Primary studies are not free from these errors thus making estimation of true magnitude of the relationships more difficult. This research clarifies the ambiguities, for instance, this research finds evidence that contradicts the general beliefs and previous empirical support about the efficacy of cross-cultural training. It shows that merely delivering cross-cultural training without emphasizing on relevance of its contents and duration may not suffice to bring the desired results. Carefully planned and tailor-made cross-cultural training designed for specific cultures may fetch desired benefits.

The impact of the antecedents is determined not only on the expatriate adjustment but also on outcomes of the adjustment which, in turn, lead to conclusion of the assignment. It is important to understand the vitality of the adjustment outcomes. The expatriate adjustment

phenomenon does not operate in isolation. The antecedents precede adjustment and the adjustment is followed by the outcomes. Therefore, effects of the adjustment on adjustment outcomes are also estimated.

The generalizability of the effects is assessed by testing for variations in the effect sizes across studies. In majority of the relationships, the effect sizes were found to be heterogeneous across the studies. This heterogeneity indicates presence of the context conditions i.e. moderators. Many methodological and theoretical moderators are examined in this research. Moreover, moderating effects of many study and sample characteristics were also examined. This extensive moderator analysis identifies conditions which moderate the relationships between antecedents and adjustment. Under these moderators, the effects may generalize. It explains the circumstance under which certain antecedents become more or less important for adjustment. Through moderator analysis, the situations are identified where certain relationships become high or low. Thus, we can test contingency theories and we can compare the theories with competing assumptions. For example, it was found that length of the stay at host location seems to moderate the relationships of cross-cultural training and family support & adjustment with expatriate adjustment. The moderating effect shows that cross-cultural training is effective in the initial period of the stay, while the effects of family support mature over time and it becomes beneficial in the longer run. Thus, we test contingency theories through moderator examination. It guides in theory building by demonstrating different effects of moderators for different antecedents.

This research contributes to theory development by including moderators that are not studied in the primary studies, for example examination of the national context. Moderating effect of the origin of the sample is examined by differentiating between the expatriate samples originating from USA and the expatriate samples originating from other countries. The moderator USA versus Non-USA Sample, shows considerable impact of expatriate's nationality on the strength of relationships.

Furthermore, causal links between antecedents, adjustment, and outcomes; and within outcomes are also established. This is important because these outcomes lead to ultimate success or failure of the assignment. Through a structural model, effects of adjustment are examined on outcomes of the adjustment. Through another structural model, the overall effects of antecedents on adjustment and outcomes; and the effects of adjustment on outcomes are examined.

This research leads to evidence-based management in expatriate empirical literature. It provides evidence-based practice recommendations for managers that can greatly facilitate expatriate adjustment process.

7.5 Conclusion

The objective of this study is to meta-analytically test the impact of selected antecedents on expatriate adjustment. Through this research, I have successfully attempted to clarify contradictory findings lingering in the expatriate empirical literature. The selected antecedents include language, cross-cultural training, role ambiguity, and family support & adjustment. In this dissertation, a detailed review of the literature regarding selected antecedents, expatriate adjustment, and outcomes of expatriate adjustment is presented. Expatriate adjustment construct is examined in its tri-faceted segregation as proposed and empirically tested in the literature. These three facets include general adjustment, interaction adjustment, and work adjustment. The outcomes examined in this research include job satisfaction, job performance, intentions to quit, and organizational commitment. Hypotheses are developed regarding effects of antecedents on adjustment and outcomes of adjustment. Moreover, hypotheses are also developed to assess the impact of adjustment on outcomes of the adjustment. Research articles are identified for meta-analysis after a careful and meticulous process of screening.

The adjustment of expatriate employees at the host location is facilitated by many antecedents and influences certain important outcomes. Language, role ambiguity, and family support & adjustment have potent effects on expatriate adjustment. Language and family support & adjustment facilitate the adjustment process while role ambiguity inhibits the adjustment. Cross-cultural training does not show considerable impact on the adjustment. Added comprehensiveness, however, can make it beneficial. Cross-cultural training must be comprehensive and cover necessary aspects regarding language and culture of the host country.

Many factors moderate the relationships between antecedents and adjustment including length of the stay at host location, previous international experience, length of tenure with the parent organization, language of host country, national context tested through country of origin of sample, etc. Research studies with expatriate samples having longer previous international experience tend to show higher correlations between antecedents and adjustment than the

opposite subgroup. Also, research studies with expatriate samples located in English-speaking countries show higher correlations between language and adjustment than the research studies with expatriate samples located in non-English speaking countries. The non-USA expatriate samples show higher correlation as compared to the USA expatriate samples. Moreover, research studies with younger expatriate samples tend to show higher correlations as compared to the studies with older expatriate samples. Published research studies mostly show higher correlations than the unpublished studies.

Antecedents to adjustment and adjustment itself affect substantially further outcomes. These outcomes are vital for the eventual conclusion of the assignment and may lead to poor performance and expatriate turnover in case of maladjustment. Expatriate adjustment has positive effects on job satisfaction, job performance, and organizational commitment. Expatriate adjustment, thus, is important for performance of the expatriate and for his/her commitment to the organizational goals. Adjustment has negative effect on an expatriate's intentions to quit, thus, reducing chances of expatriate turnover. Evidence from structural equation modeling shows that expatriate adjustment has important effects on outcomes. It also establishes a central role of adjustment in the expatriation process.

Important managerial implications can be derived from the results of this research. Organizations can improve expatriate selection mechanism by giving preference to the employees who are already familiar with the host country culture and language and have previous international experience. Moreover, management can assist expatriates in adjusting by providing comprehensive language and cross-cultural training, taking family into consideration, and by providing a clear role requirement.

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[15] A * indicates that the study is included in the meta-analysis

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Appendices

Appendix 1	Abstract
Appendix 2	Abstract in German
Appendix 3	Abbreviations
Appendix 4	List of Research Studies included in Meta-Analyses
Appendix 5	Characteristics of the Research Studies used in Meta-Analyses
Appendix 6	Level of Support Regarding Effects of Antecedents on Expatriate Adjustment in Literature
Appendix 7	Curriculum Vitae

Appendix 1: Abstract

Abstract

This research focuses on antecedents and outcomes of expatriate employees' adjustment. The effects of antecedents are tested on expatriate adjustment and outcomes of adjustment meta-analytically. The effects of four antecedents: language, cross-cultural training, role ambiguity, and family support & adjustment are examined on expatriate adjustment and outcomes of adjustment. The outcomes of adjustment include job satisfaction, job performance, intentions to quit, and organizational commitment. Total 98 research studies, identified through an extensive search process, are included in the meta-analysis.

The results indicate positive effects of language and family support & adjustment; and negative effects of role ambiguity on expatriate adjustment. Cross-cultural training shows non-significant effects. Furthermore, the effects of expatriate adjustment are tested on outcomes of adjustment. The results show positive impact of adjustment on job satisfaction, job performance, and organizational commitment; and negative impact on intentions to quit. Within outcomes; job satisfaction shows positive effect on organizational commitment and negative effect on intentions to quit; and organizational commitment shows positive effect on job performance and negative effect on intentions to quit. Moreover, causal links are theorized between antecedents, adjustment, and outcomes and are tested through two different structural models (adjustment-outcomes model and antecedents-adjustment-outcomes model). Testing of causal models through structural equation modeling corroborates these findings and establishes criticality and centrality of adjustment in the expatriation process. It also confirms an overall effect of antecedents on adjustment as well as on outcomes.

To address the variation across effect sizes, extensive moderator analysis is conducted. The results show significant moderating effects of length of stay; self versus external measures of assessment; sample's country of origin; single versus multiple countries of expatriation; age of the expatriates; tenure length; host country's language; previous international experience; and publication status on the meta-analytic relationships between antecedents and adjustment. Subgroups based on these moderators show statistically different correlations for certain meta-analytic relationships.

This research contributes to the literature by validating theories regarding antecedents of expatriate adjustment. Inconsistent findings in the literature are clarified. With respect to theory, the findings emphasize a need to use longitudinal research design, to use actual turnover data instead of turnover intentions, and to treat moderators with sufficient data and also on individual study level. For practice, this research strongly recommends devising proper expatriate selection mechanism, careful planning of cross-cultural training including language training, including expatriate's families into training programs, and providing a clear preview of assignment at the host location.

Keywords: Expatriate; adjustment; language; cross-cultural training; role ambiguity; family support; meta-analysis; structural equation modeling

Appendix 2: Abstract in German

Kurzfassung

Diese Forschung konzentriert sich auf die Bedingungen und die Ergebnisse von Anpassungen der im Ausland lebenden Mitarbeiter an die neue Umgebung. Die Auswirkungen der Bedingungen werden meta-analytisch auf die Anpassungen der Expatriates sowie auf die Ergebnisse der Anpassungen untersucht. Die Auswirkungen von vier Bedingungen, Sprache, interkulturelles Training, Rollenkonflikt und Unterstützung sowie Anpassung von Familien, werden hinsichtlich der Anpassung der Expatriates und der Ergebnisse derer untersucht. Zu den Ergebnissen der Anpassung zählen Arbeitszufriedenheit, Arbeitsleistung, Absichten zu kündigen und organisatorisches Engagement. Insgesamt wurden 98 wissenschaftliche Studien, die durch einen umfangreichen Suchprozess identifiziert werden, in die Meta-Analyse einbezogen.

Die Ergebnisse zeigen positive Effekte der Sprache und der Unterstützung durch die Familie und deren Anpassung. Negative Effekte bestehen hingegen mit Rollenkonflikten auf die Anpassungen der Expatriates. Interkulturelles Training zeigt keinen signifikanten Effekt. Zusätzlich werden die Auswirkungen der Anpassungen von im Ausland lebenden Mitarbeiter auf die Ergebnisse der Anpassung getestet. Die Ergebnisse zeigen positive Auswirkungen der Anpassung auf Arbeitszufriedenheit, Arbeitsleistung und organisatorisches Engagement sowie negative Auswirkungen auf die Absicht zu kündigen. Während die Arbeitszufriedenheit bei den Ergebnissen eine positive Wirkung auf organisatorisches Engagement zeigt, hat sie negative Auswirkungen auf die Absicht zu kündigen. Das organisatorische Engagement hat einen positiven Effekt auf die Arbeitsleistung und negative Auswirkungen auf die Absicht zu kündigen. Darüber hinaus werden die Kausalzusammenhänge zwischen Bedingungen, Anpassung und Ergebnisse in Form von zwei verschiedenen Strukturmodellen getestet (Anpassung-Ergebnis Modell und Bedingungen-Anpassung-Ergebnis Modell). Die Überprüfung von kausalen Modellen durch diese Strukturgleichungsmodelle bestätigt die Ergebnisse und betont die Wichtigkeit von Anpassung im Auswanderungsprozess. Es wird auch eine allgemeine Wirkung der Bedingungen auf die Anpassung und deren Ergebnisse bestätigt.

Um die Unterschiede zwischen den Effektgrößen aufzuzeigen, wurde eine fundierte Moderator-Analyse durchgeführt. Die Ergebnisse zeigen signifikante moderierende Wirkung von Dauer des Aufenthaltes, eigene im Vergleich zu externen Beurteilungskriterien, Herkunftsland

der Stichprobe, ein vs. verschiedene Länder der Auswanderung, Alter der Expatriates, Beschäftigungsdauer, Landessprache, vorhergehende internationale Erfahrung und Publikationsstatus der meta-analytischen Beziehungen zwischen Bedingungen und Anpassung. Untergruppen auf der Basis dieser Moderatoren zeigen statistisch unterschiedliche Korrelationen für bestimmte meta-analytischen Beziehungen.

Diese Forschung leistet einen Beitrag durch die Validierung von Theorien hinsichtlich der Bedingungen auf die Anpassungen der im Ausland lebenden Mitarbeiter an die neue Umgebung. Uneinheitliche Ergebnisse in der Literatur sind geklärt. In Bezug auf die Theorie unterstreichen die Ergebnisse die Notwendigkeit im Forschungsdesign eine Längsschnittanalyse zu verwenden, um tatsächliche „turnover"-Daten anstelle von „turnover"-Absichten und um Moderatoren mit ausreichenden Daten auch auf der individuellen Studienebene zu nutzen. Für die Praxis empfiehlt diese Forschung die Ausarbeitung eines geeigneten Expatriate-Auswahlmechanismus, eine sorgfältige Planung von Cross-Cultural Trainings einschließlich eines Sprachunterrichts mit Einbindung der Expatriate-Familien in das Ausbildungsprogramm und die zur Verfügung Stellung eines transparenten Einblicks in das zukünftige Gastland.

Schlüsselwörter: Expatriate; Anpassung, Sprache, interkulturelles Training, Rollenkonflikt; Unterstützung durch die Familie; Meta-Analyse, Strukturgleichungsmodelle

Appendix 3: Abbreviations

CCT	Cross-Cultural Training
CFI	Comparative Fit Index
CTRY Exp.	Country of Expatriation
DF	Degrees of Freedom
FSA	Family Support & Adjustment
GFI	Goodness of Fit Index
HCL	Host Country Language
IQ	Intentions to Quit
JS	Job Satisfaction
LISREL	Linear Structural Relations
MA-SEM	Meta-Analytic Structural Equation Modeling
Mar. Stat.	Marital Status
Multi-CTRY	Multiple Countries
NFI	Normed Fit Index
NS	Not Supported
OC	Organizational Commitment
OCF	Organizational Commitment to Foreign Company
OCP	Organizational Commitment to Parent Company
Perf.	Performance
RA	Role Ambiguity
RMSEA	Root Mean Square Error of Approximation
SE	Standard Error
SEM	Structural Equation Modeling
Single-CTRY	Single Country
SRMR	Standardized Root Mean Square Residual
Supp.	Supported
UK	United Kingdom
USA	United States of America

Appendix 4: List of Research Studies included in Meta-Analyses

Sr. #	Author	Year	Journal
1	Aryee and Stone	1996	The International Journal of Human Resource Management
2	Au and Fukuda	2002	Journal of World Business
3	Aumann	2007	Unpublished Ph.D. dissertation
4	Benson and Pattie	2009	Human Resource Management
5	Bhuian and Al-Jabri	1996	International Journal of Organizational Analysis
6	Bhuian and Menguc	2002	The Journal of Personal Selling & Sales Management
7	Birdseye and Hill	1995	Journal of International Business Studies
8	Black	1988	Journal of International Business Studies
9	Black	1990	Asia Pacific Journal of Management
10	Black and Gregersen	1990	International Journal of Intercultural Relations
11	Black and Gregersen	1991a	Human Relations
12	Black and Stephens	1989	Journal of Management
13	Bolino and Feldman	2000	Journal of Organizational Behavior
14	Bozionelos	2009	Human Resource Management
15	Breiden, Mohr, and Mirza	2006	The International Journal of Human Resource Management
16	Caligiuri, Phillips, Lazarova, Tarique, and Bürgi	2001	The International Journal of Human Resource Management
17	Caligiuri	1997	New Approaches to Employee Management
18	Caligiuri	2000	Management International Review
19	Caligiuri and Tung	1999	International Journal of Human Resource Management
20	Caligiuri, Hyland, Joshi, and Bross	1998	Journal of Applied Psychology
21	Caligiuri, Joshi, and Lazarova	1999	The International Journal of Human Resource Management
22	Carraher, Sullivan, and Crocitto	2008	Journal of International Business Studies
23	Chen and Chiu	2009	International Journal of Manpower
24	Chi and Chiou	2007	The Business Review, Cambridge

Appendix 4: Continued

Sr. #	Author	Year	Journal
25	Downes	1997	Unpublished Ph.D. Dissertation
26	Earley	1987	Academy of Management Journal
27	Earley	1994	Administrative Science Quarterly
28	Feldman and Thomas	1992	Journal of International Business Studies
29	Florkowski and Fogel	1999	The International Journal of Human Resource Management
30	Furuya, Stevens, Bird, Oddou, and Mendenhall	2009	Journal of International Business Studies
31	Gabel, Dolan, and Cerdin	2005	Career Development International
32	Gregersen and Black	1990	Group and Organization Studies
33	Gregersen and Black	1992	Academy of Management Journal
34	Guzzo, Noonan, and Elron	1994	Journal of Applied Psychology
35	Harrison and Hubbard	1998	Journal of Social Psychology
36	Harrison, Chadwick, and Scales	1996	International Journal of Intercultural Relations
37	Holopainen and Björkman	2005	Personnel Review
38	Kim	2008	Unpublished Ph.D. Dissertation
39	Kim and Slocum Jr.	2008	Journal of World Business
40	Kraimer	1999	Unpublished Ph.D. Dissertation
41	Kraimer and Wayne	2004	Journal of Management
42	Kraimer, Wayne, and Jaworski	2001	Personnel Psychology
43	Lee	2002	Unpublished Ph.D. Dissertation
44	Lee and Sukoco	2010	The International Journal of Human Resource Management
45	Leung, Zhu, and Cungen Ge	2009	Journal of World Business
46	Li	1996	International Journal of Hospitality Management
47	Li and Tse	1998	Tourism Management
48	Lii and Wong	2008	The International Journal of Human Resource Management
49	Morley and Flynn	2003	Cross Cultural Management
50	Naumann	1993a	Journal of International Business Studies
51	Naumann	1993b	Group and Organization Studies
52	Naumann, Widmier, and Jackson, Jr.	2000	The Journal of Personal Selling and Sales Management
53	Nicholls, Rothstein, and Bourne	2002	International Journal of Cross Cultural Management

Appendix 4: Continued

Sr. #	Author	Year	Journal
54	Nicholson and Imaizumi	1993	British Journal of Management
55	Osman-Gani and Rockstuhl	2009	International Journal of Intercultural Relations
56	Palthe	2004	International Journal of Intercultural Relations
57	Palthe	2008	Journal of Asia Business Studies
58	Peltokorpi	2008	The International Journal of Human Resource Management
59	Puck, Kittler, and Wright	2008	The International Journal of Human Resource Management
60	Puck, Mohr, and Rygl	2008	The International Journal of Human Resource Management
61	Qin and Baruch	2010	Career Development International
62	Sri Ramalu, Rose, Kumar, and Uli	2010	Journal of Applied Business Research
63	Rose, Sri Ramalu, Uli, and Kumar	2010	International Journal of Business and Management
64	Selmer	2005	Personnel Review
65	Selmer	2006	Thunderbird International Business Review
66	Selmer and Fenner	2009	Human Resource Management Journal
67	Selmer, Ebrahimi, and Mingtao	2000	The International Journal of Human Resource Management
68	Selmer, Lauring, and Feng	2009	Cross Cultural Management: An International Journal
69	Shaffer and Harrison	1998	Personnel Psychology
70	Shaffer and Harrison	2001	Journal of Applied Psychology
71	Shaffer, Harrison, and Gilley	1999	Journal of International Business Studies
72	Shaffer, Harrison, Gilley, and Luk	2001	Journal of Management
73	Shaffer, Harrison, Gregersen, Black, and Ferzandi	2006	Journal of Applied Psychology
74	Shaw, Delery, and Abdulla	2003	Journal of Business Research
75	Shay and Baack	2006	International Journal of Cross Cultural Management
76	Shih, Chiang, and Hsu	2010	The International Journal of Human Resource Management
77	Shimoni, Ronen, and Roziner	2005	International Journal of Cross Cultural Management
78	Siers	2007	Applied Psychology: An International Review
79	Stahl and Caligiuri	2005	Journal of Applied Psychology

Appendix 4: Continued

Sr. #	Author	Year	Journal
80	Stierle, Dick, and Wagner	2002	Zeitschrift für Sozialpsychologie
81	Stroh, Dennis, and Cramer	1994	The International Journal of Organizational Analysis
82	Stroppa and Spiess	2010	The International Journal of Human Resource Management
83	Takeuchi, Tesluk, Yun, and Lepak	2005	Academy of Management Journal
84	Takeuchi, Wang, Marinova, and Yao	2009	Organization Science
85	Takeuchi, Yun, and Russell	2002	The International Journal of Human Resource Management
86	Takeuchi, Yun, and Tesluk	2002	Journal of Applied Psychology
87	Taylor and Napier	1996	Sloan Management Review
88	Toh	2003	Unpublished Ph.D. dissertation
89	Turcotte	1996	Unpublished Master dissertation
90	Turner	2006	Unpublished Ph.D. Dissertation
91	Usunier	1998	International Business Review
92	Van der Heijden, Van Engen, and Paauwe	2009	The International Journal of Human Resource Management
93	Wang and Takeuchi	2007	Journal of Applied Psychology
94	Wang	2001	Unpublished Ph.D. Dissertation
95	Wasson	1997	IBAR
96	Waxin	2004	International Journal of Intercultural Relations
97	Yavas and Bodur	1999	Career Development International
98	Yousef	2000	Journal of Managerial Psychology

Appendix 5: **Characteristics of the Research Studies used in Meta-Analyses**

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
1	Aryee and Stone (1996)	80%	40	90%	6 Y	N/A†	N/A	Multiple	Hong Kong	Survey
2	Au and Fukuda (2002)	N/A	N/A	N/A	N/A	N/A	Multiple	Japanese, American, British, Others	Hong Kong	Survey
3	Aumann (2007)	55%	37	N/A	2.75 Y	N/A	Multiple	Multiple	USA	Survey
4	Benson and Pattie (2009)	N/A	N/A	N/A	N/A	N/A	N/A	USA	Multiple	Survey, Interview
5	Bhuian and Al-Jabri (1996)	N/A	N/A	N/A	N/A	N/A	N/A	Multiple	Saudi Arabia	Survey
6	Bhuian and Menguc (2002)	N/A	28.2% 20-29 42.2% 30-39 22.2% 40-49 6.7% 50-59 0.7% > 60	N/A	N/A	Managers, Assistants	Manufact. Service Retail	Multiple	Saudi Arabia	Survey
7	Birdseye and Hill (1995)	88%	11% 21-30 22% 31-40 28% 41-50 33% 51-60 6% > 60	80%	43 M	38% Managers	N/A	USA	Multiple	Survey

Sex = Percent male unless specified otherwise
Age = Average age given in years
Mar. Stat. = Marital status Percent married
Stay Length: Y = Years M = Months
CTRY Exp. = Country of Expatriation (Host Country)

† N/A = Not available

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
8	Black (1988)	100%	46	80%	N/A	Managers, Technical	Multiple	USA	Japan	Survey
9	Black (1990)	93.6%	43.9	N/A	N/A	Executives, Managers, Technical	N/A	USA	Japan, Korea, Taiwan, Hong Kong	Survey, Interview
10	Black and Gregersen (1990)	100%	46	80%	N/A	Managers	Multiple	USA	Japan	Survey
11	Black and Gregersen (1991a)	93.6%	43.9	85%	30.89 M	Executives	Multiple	USA	Japan, Korea, Taiwan, Hong Kong	Survey
12	Black and Stephens (1989)	93.6%	43.9	85%	N/A	Managers	N/A	USA	Japan, Korea, Taiwan, Hong Kong	Survey
13	Bolino and Feldman (2000)	90%	69% 30-49	85%	2 Y	Managers Technical	Technology Manufact. Entertain.	USA	Multiple	Survey
14	Bozionelos (2009)	14%	39	65%	5.18 Y	Nurses	Health	Multiple	Saudi Arabia	Survey, HR Records
15	Breiden, Mohr, and Mirza (2006)	91.5%	40	N/A	26 M	N/A	N/A	German	USA, China, Switezrland, Brazil, Italy, Mexico, France	Survey
16	Caligiuri (1997)	82%	40	81%	N/A	N/A	N/A	American	Multiple	Survey
17	Caligiuri (2000)	83%	40	75%	1.8 Y	N/A	N/A	American	Multiple	Survey
18	Caligiuri and Tung (1999)	82%	39	78%	1 .8 Y	N/A	IT	USA	Multiple	Survey

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
19	Caligiuri, Hyland, Joshi, and Bross (1998)	95%	38	100%	N/A	N/A	N/A	Canadian, American, British, Others	Multiple	Archival Data
20	Caligiuri, Joshi, and Lazarova (1999)	100% Female	38	53%	2 Y	N/A	IT	USA	Multiple	Interview
21	Caligiuri, Phillips, Lazarova, Tarique, and Bürgi (2001)	82%	38.7	85%	10.6 M	N/A	N/A	American, Canadian, Italian, German, British	Multiple	survey
22	Carraher, Sullivan, and Crocitto (2008)	54.5%	43	N/A	N/A	N/A	N/A	USA	Multiple	Survey
23	Chen and Chiu (2009)	77%	N/A	N/A	N/A	74% Executives	Multiple	Taiwan	Multiple	Survey
24	Chi and Chiou (2007)	91.1%	40% > 51 37.8% 41-50 4.4% 20-30	N/A	2 Y	62.2% Managers	N/A	Taiwan	USA	Survey
25	Downes (1997)	91.7%	N/A	85.6%	24.7 M	Managers	Multiple	American, Others	Multiple	Survey
26	Earley (1987)	N/A	33.6	N/A	3 M	N/A	Electronic	USA	South Korea	Survey
27	Earley (1994)	64%	28.6	N/A	N/A	N/A	N/A	American, Chinese	USA, China	Lab. and Field Exper.

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
28	Feldman and Thomas (1992)	97%	45	N/A	2.5 Y	Managers	N/A	Multiple	Saudi Arabia, Japan, Europe, South America	Survey
29	Florkowski and Fogel (1999)	87%	14% < 30 27% 30–39 34% 40–49 34% 50–59 5% > 60	64%	24% < 6 M 20% 6-12 M 36% 13-36 M 9% 37-60 M 11% > 60 M	Managers	Manufact. Non-Manufact.	American, Western European, Other	Multiple	Survey
30	Furuya, Stevens, Bird, Oddou, and Mendenhall (2009)	N/A	N/A	N/A	N/A	N/A	N/A	Japanese	Multiple	Survey
31	Gabel, Dolan, and Cerdin (2005)	85%	38	81%	27 M	45% Executives	N/A	Spain	Latin America	Survey, Interview
32	Gregersen and Black (1990)	95%	44.5	N/A	N/A	Executives	N/A	USA	Multiple	Survey
33	Gregersen and Black (1992)	95%	44.5	86%	50.83 M	Executives	N/A	USA	Multiple	Survey
34	Guzzo, Noonan, and Elron (1994)	93%	43	99%	1.97 Y	Multiple	Multiple	USA	Multiple	Survey
35	Harrison and Hubbard (1998)	89%	33	N/A	N/A	N/A	Manufact.	USA	Mexico	Survey
36	Harrison, Chadwick, and Scales (1996)	61.6%	45	N/A	8.3 Y	83% Managers	N/A	USA	Germany, Other European Countries	Survey

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
37	Holopainen and Björkman (2005)	88%	N/A	90%	> 12 M	N/A	N/A	Finland	Multiple	Survey
38	Kim (2008)	91.7%	44.25	N/A	26.17 M	N/A	N/A	American, British	Multiple	Survey
39	Kim and Slocum Jr. (2008)	98%	38.78	94%	25.98 M	Managers, Engineers, Executives	Electronics Banking Logistics Machinery	Korean	USA	Survey
40	Kraimer (1999)	97%	44	100%	2 Y	Managers	Insurance Manufact. Chemical	USA	Multiple	Survey, Interview
41	Kraimer and Wayne (2004)	97%	44	94%	2 Y	Managers Technical	Insurance Manufact. Chemical	USA	Multiple	Survey
42	Kraimer, Wayne, and Jaworski (2001)	98%	43.7	100%	23 M	Managers, Technical	Insurance Manufact. Chemical	USA	Multiple	Survey
43	Lee (2002)	85.9%	11.3% 31-35 49.1% 40-45 39.6% > 45	100%	22.6% < 1Y 36% 1-3Y 9% 3-5Y 13% 5-10 Y 19% > 10 Y	N/A	Banking	Taiwanese	USA	Survey
44	Lee and Sukoco (2010)	89%	34	43.1%	N/A	Engineering, Managerial	Manufact. Service	Taiwan	China, Vietnam, Others	Survey
45	Leung, Zhu, and Cungen Ge (2009)	N/A	N/A	N/A	N/A	N/A	N/A	Multiple	China	Survey

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
46	Li (1996)	82.7%	95% 26-50	62%	4 Y	Managers	N/A	Europe, North America	China, Hong Kong, Singapore	Survey
47	Li and Tse (1998)	82.7%	95% 26-50	63%	4 Y	Managers	Hotel	Multiple	Hong Kong, China, Singapore	Survey, Interview
48	Lii and Wong (2008)	86.8%	71% > 36 8.6% < 30	N/A	N/A	N/A	N/A	Taiwan	China	Survey
49	Morley and Flynn (2003)	85.5%	25% 31-35 30.3% 36-40	72%	N/A	N/A	N/A	American, Canadian	Ireland	Survey
50	Naumann (1993a)	92%	31-40	78%	3-5 Y	Managers	Multiple	USA	South Korea, Hong Kong, Taiwan, China	Survey
51	Naumann (1993b)	88%	38.42	76%	N/A	N/A	Multiple	USA	Japan, South Korea, Hong Kong, Taiwan, China, Singapore	Survey
52	Naumann, Widmier, and Jackson, Jr. (2000)	90%	36	82%	N/A	Sales Rep.	N/A	USA	Multiple	Survey
53	Nicholls, Rothstein, and Bourne (2002)	86%	40	74%	N/A	Managers	Multiple	USA, Canada, Norway, UK, Brazil	China, Malaysia	Survey
54	Nicholson and Imaizumi (1993)	99%	40	95%	2.5 Y	N/A	N/A	Japanese	UK	Survey

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
55	Osman-Gani and Rockstuhl (2009)	85%	44.5% 25-35 48% 35-45	N/A	2 Y	N/A	Manufact. Financial Transport	Singaporean, German, Japanese, Americans	Singapore, China, Korea, Taiwan, Japan	Survey, Interview
56	Palthe (2004)	92%	45	87%	4.03 Y	86% Executives	Multiple	USA	Japan, South Korea, the Netherlands	Survey
57	Palthe (2008)	92%	45	87%	N/A	Managers, Specialists, Consultants	N/A	USA	Japan, South Korea, the Netherlands	Survey
58	Peltokorpi (2008)	60%	33.47	40%	10% < 6 M 28% 6-25M 31% 26-60 M 24% 61-120 M 6% > 120M	Managers, Staff	N/A	USA, UK, France, Others	Japan	Survey
59	Puck, Kittler, and Wright (2008)	83%	36	55%	22 M	32.1% Managers	Multiple	Germany	Europe, North America, Asia	Survey, Interview
60	Puck, Mohr, and Rygl (2008)	N/A	44	N/A	N/A	N/A	Pipeline Plant Construction	Multiple	Multiple	Survey
61	Qin and Baruch (2010)	59.8%	N/A	N/A	N/A		Multiple	Multiple	Multiple	Survey
62	Rose, Sri Ramalu, Uli, and Kumar (2010)	75.9%	36.7% 42-52 31.0% 31-41	75.6%	4.80 Y	Managerial, Non-Managerial	N/A	Multiple	Malaysia	Survey
63	Selmer (2005)	97%	45.1	79%	4.92 Y	Managers, CEO	N/A	Multiple	China	Survey
64	Selmer (2006)	95%	44.68	77%	5.98 Y	Managers	N/A	Multiple	China	Survey

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
65	Selmer and Fenner (2009)	N/A	40	N/A	19.47 M	N/A	N/A	USA	Multiple	Survey
66	Selmer, Ebrahimi, and Mingtao (2000)	74%	33	87%	3.5 Y	CEO, Managerial, Non-Managerial	Multiple	Chinese	Hong Kong	Survey, Interview
67	Selmer, Lauring, and Feng (2009)	N/A	46.1	N/A	7.7 Y	Managers, CEO	N/A	British, American, German, Australian	China, Hong Kong, Singapore, Taiwan	Survey
68	Shaffer and Harrison (1998)	89%	43	83%	N/A	Managers, Technical	Multiple	Multiple	Multiple	Survey
69	Shaffer and Harrison (2001)	5%	41.3	N/A	31.19 M	N/A	N/A	Multiple	Multiple	Survey, Interview
70	Shaffer, Harrison, and Gilley (1999)	89%	43	83%	N/A	Managers, Technical	Multiple	American, British, Australian, Others	Multiple	Survey
71	Shaffer, Harrison, Gilley, and Luk (2001)	98%	44	99%	28 M	Managers, Technical	Multiple	Multiple	Multiple	Survey
72	Shaffer, Harrison, Gregersen, Black, and Ferzandi (2006)	87%	45	85%	3 Y	Managers	N/A	Multiple	Multiple	Survey
73	Shaw, Delery, and Abdulla (2003)	N/A	32.88	N/A	N/A	N/A	N/A	UAE, India, Pakistan, Srilanka, Bangladesh	UAE	Survey
74	Shay and Baack (2006)	94.7%	46	87%	3.6 Y	Managers	Hotel	Multiple	Multiple	Survey

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
75	Shih, Chiang, and Hsu (2010)	N/A	N/A	N/A	N/A	N/A	N/A	Taiwan	China	Survey
76	Shimoni, Ronen, and Roziner (2005)	85.1%	44	98%	31 M	Multiple	Multiple	Multiple	Israel	Survey
77	Siers (2007)	N/A	44.44	N/A	N/A	N/A	Telecom. Petro-Chemical	USA	Multiple	Survey
78	Sri Ramalu, Rose, Kumar, and Uli (2010)	75.9%	36.7% 42-52 31% 31-41	75.6%	4.80 Y	Managerial, Non-Managerial	N/A	India, UK, Australia, 42 Countries	Malaysia	Survey
79	Stahl and Caligiuri (2005)	100%	2% < 30 33% 30–39 32% 40–50 33% > 50	88%	21% < 2 Y 47% 2-5 Y 33% > 5 Y	Managers	N/A	Germany	Japan, USA	Survey, Interview
80	Stierle, Dick, and Wagner (2002)	96%	N/A	89%	32 M	Managers Technical	N/A	Germany	Multiple	Survey
81	Stroh, Dennis, and Cramer (1994)	95%	42	90%	1.42 Mean	N/A	Multiple	USA	Multiple	Survey
82	Stroppa, and Spiess (2010)	78.8%	38.86	86.3%	3.59 Y	N/A	Multiple	Germany	Multiple	Survey
83	Takeuchi, Tesluk, Yun, and Lepak (2005)	N/A	38.99	88.5%	29.66 M	N/A	N/A	Japanese	USA	Survey, Interview
84	Takeuchi, Wang, Marinova, and Yao (2009)	86%	36.81	71.5%	1.61 Y	N/A	N/A	USA, Canada, Australia, UK, and Hong Kong	China	Survey
85	Takeuchi, Yun, and Russell (2002)	100%	39	99%	33 M	Managers, Technical	Multiple	Japanese	USA	Survey, Interview

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
86	Takeuchi, Yun, and Tesluk (2002)	100%	40	100%	2.5 Y	Managers	Food Processing Electronics Automobile	Japanese	USA	Survey, Interview
87	Taylor and Napier (1996)	100%	N/A	N/A	N/A	N/A	Multiple	USA	Japan	Survey
88	Toh (2003)	59%	N/A	N/A	4.41 Y	Managers	N/A	Multiple	USA, Vietnam, Malaysia, Singapore, Japan	Survey
89	Turcotte (1996)	88%	43	88%	3 Y	Executives Managers Technical	Multiple	Canadian	Multiple	Survey
90	Turner (2006)	N/A	N/A	N/A	N/A	N/A	N/A	Caucasian, Latin American, Asian, Black	USA	Survey
91	Usunier (1998)	67.9%	46	67.8%	81 M	N/A	N/A	USA	France	Survey
92	Van der Heijden, Van Engen, and Paauwe (2009)	65%	37	73%	2.5 years	N/A	N/A	Multiple	Holland	Survey, Interview
93	Wang (2001)	81.1%	N/A	68.1%	44% < 1 M 29% 19-36 M 27% > 36M	N/A	N/A	Asian, North American, European/ Australians	China	Survey
94	Wang and Takeuchi (2007)	87.4%	37.19	70.5%	2.06 years	N/A	N/A	USA, Canada, Australia, UK, Hong Kong	China	Survey
95	Wasson (1997)	98%	41.5	83.5%	N/A	N/A	N/A	Ireland	Multiple	Survey

Appendix 5: Continued

Sr. #	Author	Sex	Age	Mar. Stat.	Stay Length	Job Level	Industry	Nationality	CTRY Exp.	Method
96	Waxin (2004)	85.3%	38	N/A	19 M	N/A	N/A	French, Korean, Danish, Norwegian	India	Survey
97	Yavas and Bodur (1999)	N/A	80% 25-44	N/A	N/A	Managers	Manufact. Banking Wholesale/ Retail Trade	American, English, German	Turkey	Survey
98	Yousef (2000)	75%	33.5% < 30 66.5% > 30	N/A	N/A	Admin. Technical Positions	Manufact. Service	UAE, Arab, Asian	UAE	Survey

Appendix 6: Level of Support Regarding Effects of Antecedents on Expatriate Adjustment in Literature

Sr. #	Author	Antecedent	Adjustment	Findings[†]
1	Aryee and Stone (1996)	Role Ambiguity	Work Adjustment	Supp.
		Role Ambiguity	Job Satisfaction	Supp.
2	Au and Fukuda (2002)	Role Ambiguity	Job Satisfaction	Supp.
3	Black (1990)	Role Ambiguity	General Adjustment	NS
		Role Ambiguity	Interaction Adj.	Supp.
		Role Ambiguity	Work Adjustment	Supp.
4	Black and Gregersen (1991a)	Cross-Cultural Training	General Adjustment	NS
		Cross-Cultural Training	Interaction Adj.	Supp.
		Cross-Cultural Training	Work Adjustment	NS
		Role Ambiguity	General Adjustment	NS
		Role Ambiguity	Interaction Adj.	NS
		Role Ambiguity	Work Adjustment	Supp.
		Family Support & Adjustment	General Adjustment	Supp.
		Family Support & Adjustment	Interaction Adj.	Supp.
		Family Support & Adjustment	Work Adjustment	NS
5	Breiden, Mohr, and Mirza (2006)	Family Support & Adjustment	Work Adjustment	NS
6	Caligiuri (2000)	Language	General Adjustment	NS
		Cross-Cultural Training	General Adjustment	Supp.
		Family Support & Adjustment	General Adjustment	Supp.
7	Caligiuri, Phillips, Lazarova, Tarique, and Bürgi (2001)	Language	General Adjustment	NS
		Cross-Cultural Training	General Adjustment	Supp.
		Family Support & Adjustment	General Adjustment	Supp.
8	Chi and Chiou (2007)	Role Ambiguity	Work Adjustment	Supp.

[†] Findings refer to the results of statistical tests

Supp. = Supported
NS = Not Supported

Appendix 6: Continued

Sr. #	Author	Antecedent	Adjustment	Findings[†]
9	Downes (1997)	Cross-Cultural Training	General Adjustment	NS
		Cross-Cultural Training	Job Satisfaction	Supp.
		Cross-Cultural Training	Org. Commitment	Supp.
		Role Ambiguity	General Adjustment	NS
		Role Ambiguity	Job Satisfaction	Supp.
		Role Ambiguity	Org. Commitment	NS
		Family Support & Adjustment	General Adjustment	Supp.
		Family Support & Adjustment	Job Satisfaction	NS
10	Gregersen and Black (1992)	Cross-Cultural Training	Org. Commitment	Supp.
		Role Ambiguity	Org. Commitment	NS
11	Holopainen and Björkman (2005)	Cross-Cultural Training	Performance	NS
12	Kim (2008)	Language	General Adjustment	NS
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	Supp.
		Language	Performance	NS
13	Kim and Slocum Jr. (2008)	Language	Interaction Adj.	Supp.
		Language	Work Adjustment	NS
		Language	Job Satisfaction	NS
		Language	Intentions to Quit	NS
		Language	Performance	Supp.
14	Kraimer (1999)	Language	General Adjustment	Supp.
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	NS
		Language	Performance	NS
		Language	Org. Commitment	NS
		Cross-Cultural Training	General Adjustment	NS
		Cross-Cultural Training	Interaction Adj.	NS
		Cross-Cultural Training	Work Adjustment	NS
		Cross-Cultural Training	Performance	NS
		Cross-Cultural Training	Org. Commitment	NS
		Family Support & Adjustment	General Adjustment	Supp.
		Family Support & Adjustment	Interaction Adj.	NS
		Family Support & Adjustment	Work Adjustment	NS
		Family Support & Adjustment	Performance	NS
		Family Support & Adjustment	Org. Commitment	NS

Appendix 6: Continued

Sr. #	Author	Antecedent	Adjustment	Findings†
15	Kraimer and Wayne (2004)	Language	General Adjustment	Supp.
		Language	Performance	Supp.
		Role Ambiguity	General Adjustment	Supp.
		Role Ambiguity	Performance	Supp.
		Role Ambiguity	Org. Commitment	Supp.
16	Kraimer, Wayne, and Jaworski (2001)	Family Support & Adjustment	General Adjustment	NS
		Family Support & Adjustment	Work Adjustment	NS
17	Lee (2002)	Cross-Cultural Training	General Adjustment	NS
		Family Support & Adjustment	General Adjustment	NS
18	Morley and Flynn (2003)	Role Ambiguity	General Adjustment	NS
		Role Ambiguity	Interaction Adj.	Supp.
		Role Ambiguity	Work Adjustment	Supp.
19	Naumann (1993a)	Cross-Cultural Training	Job Satisfaction	NS
		Role Ambiguity	Job Satisfaction	Supp.
20	Naumann (1993b)	Language	Job Satisfaction	NS
		Language	Org. Commitment	Supp.
		Cross-Cultural Training	Job Satisfaction	Supp.
		Cross-Cultural Training	Org. Commitment	NS
		Role Ambiguity	Job Satisfaction	Supp.
		Role Ambiguity	Org. Commitment	Supp.
21	Naumann, Widmier, and Jackson, Jr. (2000)	Language	Job Satisfaction	NS
		Language	Org. Commitment	NS
		Cross-Cultural Training	Job Satisfaction	NS
		Cross-Cultural Training	Org. Commitment	NS
		Role Ambiguity	Job Satisfaction	NS
		Role Ambiguity	Org. Commitment	Supp.
22	Osman-Gani and Rockstuhl (2009)	Cross-Cultural Training	General Adjustment	NS
		Cross-Cultural Training	Interaction Adj.	NS
		Cross-Cultural Training	Work Adjustment	NS
23	Palthe (2004)	Cross-Cultural Training	General Adjustment	NS
		Cross-Cultural Training	Interaction Adj.	NS
		Cross-Cultural Training	Work Adjustment	NS
		Family Support & Adjustment	General Adjustment	Supp.
		Family Support & Adjustment	Interaction Adj.	Supp.
		Family Support & Adjustment	Work Adjustment	NS

Appendix 6: Continued

Sr. #	Author	Antecedent	Adjustment	Findings†
24	Peltokorpi (2008)	Language	General Adjustment	Supp.
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	NS
		Language	Job Satisfaction	NS
25	Puck, Kittler, and Wright (2008)	Language	General Adjustment	Supp.
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	Supp.
		Cross-Cultural Training	General Adjustment	NS
		Cross-Cultural Training	Interaction Adj.	NS
		Cross-Cultural Training	Work Adjustment	NS
26	Puck, Mohr, and Rygl (2008)	Language	General Adjustment	NS
27	Rose, Sri Ramalu, Uli, and Kumar (2010)	Language	Performance	NS
28	Selmer (2005)	Cross-Cultural Training	General Adjustment	NS
		Cross-Cultural Training	Interaction Adj.	NS
		Cross-Cultural Training	Work Adjustment	NS
29	Selmer (2006)	Language	General Adjustment	Supp.
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	Supp.
30	Shaffer and Harrison (1998)	Family Support & Adjustment	General Adjustment	Supp.
		Family Support & Adjustment	Interaction Adj.	Supp.
		Family Support & Adjustment	Work Adjustment	NS
		Family Support & Adjustment	Job Satisfaction	NS
		Family Support & Adjustment	Intentions to Quit	NS
31	Shaffer, Harrison, and Gilley (1999)	Language	General Adjustment	NS
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	NS
		Family Support & Adjustment	General Adjustment	Supp.
		Family Support & Adjustment	Interaction Adj.	Supp.
		Family Support & Adjustment	Work Adjustment	NS
32	Shimoni, Ronen, and Roziner (2005)	Role Ambiguity	General Adjustment	NS
		Role Ambiguity	Interaction Adj.	NS
		Role Ambiguity	Work Adjustment	Supp.
		Family Support & Adjustment	General Adjustment	Supp.
		Family Support & Adjustment	Interaction Adj.	Supp.
		Family Support & Adjustment	Work Adjustment	Supp.

Appendix 6: Continued

Sr. #	Author	Antecedent	Adjustment	Findings[†]
33	Sri Ramalu, Rose, Kumar, and Uli (2010)	Language	General Adjustment	Supp.
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	NS
		Language	Performance	NS
34	Stroh, Dennis, and Cramer (1994)	Cross-Cultural Training	General Adjustment	NS
		Family Support & Adjustment	General Adjustment	Supp.
35	Takeuchi, Yun, and Russell (2002)	Language	Work Adjustment	Supp.
36	Takeuchi, Yun, and Tesluk (2002)	Role Ambiguity	General Adjustment	Supp.
		Role Ambiguity	Work Adjustment	Supp.
		Family Support & Adjustment	General Adjustment	Supp.
37	Toh (2003)	Language	General Adjustment	Supp.
		Language	Interaction Adj.	Supp.
		Language	Work Adjustment	NS
		Family Support & Adjustment	General Adjustment	NS
		Family Support & Adjustment	Interaction Adj.	NS
		Family Support & Adjustment	Work Adjustment	NS
38	Turcotte (1996)	Cross-Cultural Training	General Adjustment	NS
39	Turner (2006)	Cross-Cultural Training	General Adjustment	Supp.
		Cross-Cultural Training	Interaction Adj.	Supp.
		Cross-Cultural Training	Work Adjustment	Supp.
		Cross-Cultural Training	Performance	NS
40	Wang (2001)	Cross-Cultural Training	Performance	NS
		Role Ambiguity	Performance	Supp.
		Family Support & Adjustment	Performance	Supp.
41	Waxin (2004)	Cross-Cultural Training	Interaction Adj.	Supp.

Appendix 7: Curriculum Vitae

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Research Interests

Expatriate Adjustment, International Human Resource Management

Academic Qualification

2008 – to date	Doctor of Philosophy (PhD) in Management Center for Business Studies University of Vienna, Austria (expected completion in May/June 2012)
2002 –2004	Masters in Business Administration University of Agriculture, Faisalabad, Pakistan
1997 – 2000	Graduation (Physiotherapy) University of the Punjab, Lahore, Pakistan
1994 – 1996	F.Sc. Board of Intermediate and Secondary Education, Faisalabad, Pakistan

Professional Experience

01/2006 – 09/2007	National Bank of Pakistan Officer Grade II/ Management Trainee Officer
04/2005 – 12/2005	Askari Bank Limited Officer Grade II
09/2004 – 5/2005	Masood Textile Mills Limited Management Trainee Officer

Conference Presentations

- Braumann, E., Preveden, O., Saleem, S., Xu, Y., and Koeszegi, S.T. (2010), 'The Effect of Emoticons in Synchronous and Asynchronous e-Negotiations', Presented at Group Decision and Negotiation Conference held at Delft, the Netherlands on 21st-23rd June, 2010.

Professional Trainings

- 2 months Comprehensive Banking Training Program at National Bank of Pakistan, Staff College, Islamabad
- 6 weeks Training Program on Commercial Banking organized by Institute of Bankers, Pakistan
- 1 day Seminar on "Anti Money Laundering" and "Know Your Customer"
- 3 days Training Program on "Prudential Regulations issued by State Bank of Pakistan (Regulator)" organized by National Bank of Pakistan, Regional Office, Faisalabad.
- 1 day Training Program on implementation of Basal Accord II organized by National Bank of Pakistan, Regional Office, Faisalabad.
- 2 weeks Training Program on "General Banking" organized by Human Resources Division, Askari Bank Limited
- 1 day Seminar on Stress Management organized by Masood Textile Mills Limited (Apparel Division), Faisalabad, Pakistan
- 1 day seminar on Conflict Management organized by Masood Textile Mills Limited (Apparel Division), Faisalabad, Pakistan

Scholarships and Grants

- Travel scholarship awarded by Higher Education Commission of Pakistan for presentation of paper at Group Decision and Negotiation Conference held at Delft, the Netherlands on 21–23 June, 2010.
- Fully funded PhD Scholarship by Higher Education Commission, Pakistan for PhD studies in Austria

Skills

Computer Skills

- Excellent skills of Microsoft office
- Good working knowledge of statistical software like Stata, SPSS, CMA, and LISREL

Language Skills
English (Advanced), Urdu (MT), Punjabi (MT), German (Basic)

Personal Information

Date of Birth	1st January 1979
Nationality	Pakistani
Marital Status	Married, one child
Permanent Address	557-F, Gulistan Colony, Faisalabad, Pakistan