การกีดกันด้านการจ้างงานต่อผู้สมัครที่มีความสามารถสูง : อิทธิพลของภาพในความคิดแบบเหมารวมด้านความสามารถและความอบอุ่น และมุมมองแบบร่วมมือหรือแข่งขันระหว่างกลุ่ม

นางสาววิภาวี ภัทรวุฒิพร

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HIRING DISCRIMINATION AGAINST HIGHLY-COMPETENT CANDIDATES: AN INVESTIGATION OF COMPETENCE AND WARMTH STEREOTYPES, AND COOPERATIVE/COMPETITIVE MINDSETS

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การวิจัยครั้งนี้ใช้แนวคิดทฤษฎี the continuum model of impression formation และ stereotype content model เพื่อศึกษาอิทธิพลของภาพในความคิดแบบเหมารวมด้านความสามารถและความอบอุ่นของประเทศของผู้สมัคร ต่อการกีดกันทางตรงและทางอ้อมด้านการจ้างงานผู้สมัครงานที่มีความสามารถสูง การทดลองที่ 1 (*N* = 220) จัดกระทำภาพในความคิดแบบเหมารวมด้วยประเทศสมมุติ การทดลองที่ 2 (*N* = 512) จัดกระทำโดยใช้ประเทศสมาชิกกลุ่มประชาคมเศรษฐกิจอาเซียน (AEC) 4 ประเทศ

ผลการศึกษานี้ต่อยอดทฤษฎี stereotype content model ด้วยการเสนอข้อค้นพบใหม่ว่าภาพในความคิดแบบเหมารวมด้านความสามารถมีอิทธิพลที่แตกต่างไปจากด้านความอบอุ่น ต่อการกีดกันผู้สมัครที่มีความสามารถสูง ผลจากทั้งสองการศึกษาพบว่าภาพในความคิดแบบเหมารวมด้านความสามารถส่งผลทางตรงต่อการกีดกันการจ้างงานทางตรงต่อผู้สมัครจากประเทศนั้นๆ ผู้สมัครที่มาจากประเทศที่ประชาชนถูกมองอย่างเหมารวมว่ามีความสามารถต่ำได้รับคะแนนการว่าจ้างน้อยกว่าและได้รับประเมินเงินเดือนเริ่มต้นน้อยกว่าผู้สมัครที่มีคุณสมบัติเดียวกันแต่มาจากประเทศที่ประชาชนถูกมองว่ามีความสามารถสูง แม้ว่าอิทธิพลของอคติของผู้ประเมินได้ถูกควบคุมไว้ การศึกษาที่ 1 พบว่าผู้สมัครจากประเทศที่ประชาชนถูกมองว่าเย็นชาถูกประเมินในทางลบกว่าผู้สมัครจากประเทศที่ประชาชนถูกมองว่าอบอุ่น และภาพในความคิดแบบเหมารวมด้านความอบอุ่นมีอิทธิพลส่งผ่านทางอคติของผู้ประเมินไปยังพฤติกรรมการกีดกันทางอ้อม แม้ว่าผลการศึกษานี้ไม่ได้รับการยืนยันจากการศึกษาที่ 2 เนื่องจากข้อจำกัดในการเลือกประเทศจาก AEC ที่ถูกมองแบบเหมารวมว่าประชาชนมีความสามารถสูงแต่เย็นชา

การศึกษาที่ 2 ทดสอบอิทธิพลของมุมมองแบบร่วมมือหรือแข่งขันระหว่างกลุ่ม ต่อการกีดกันด้านการจ้างงาน และพบว่ามุมมองแบบร่วมมือหรือแข่งขันระหว่างประเทศสมาชิก AEC ไม่มีอิทธิพลต่อการกีดกันการจ้างงานผู้สมัครความสามารถสูงจากประเทศสมาชิกกลุ่ม AEC 4 ประเทศที่ใช้จัดกระทำ ไม่ว่าจะเป็นการกีดกันแบบทางตรงหรือแบบทางอ้อม ซึ่งไม่สนับสนุนสมมุติฐานในการวิจัยนี้ ผลการศึกษานำเสนอข้อมูลที่มีประโยชน์ในทางปฏิบัติเพื่อเตรียมพร้อมรับมือกับการว่าจ้างในบริบทของ AEC

สาขาวิชา จิตวิทยา	ลายมือชื่อนิสิต ....
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VIPAVEE PUTTARAVUTTIPORN: HIRING DISCRIMINATION AGAINST HIGHLY-COMPETENT CANDIDATES: AN INVESTIGATION OF COMPETENCE AND WARMTH STEREOTYPES, AND COOPERATIVE/COMPETITIVE MINDSETS. ADVISOR: ASST. PROF. WATCHARAPORN BOONYASIRIWAT, Ph.D., 365 pp.

This study applies the continuum model of impression formation and the stereotype content model to investigate the effect of warmth and competence stereotype on blatant and subtle hiring discrimination against highly-competent candidates. Study 1 (N = 220) used hypothetical countries and Study 2 (N = 512) used four ASEAN Economic Community (AEC) countries to manipulate the competence and warmth stereotypes.

The results offer a theoretical extension to the stereotype content model where warmth and competence stereotypes have differentiating effects on hiring discrimination against highly-competent candidates. Results from both studies showed that competence stereotype had a significant positive direct effect on blatant hiring discrimination when controlling for participants' prejudice level. Highly-competent candidates from low-competent stereotyped countries were rated significantly lower in hireability and salary assignment. Study 1 results showed that highly-competent candidates from low-warmth stereotyped countries were perceived poorly on career related items. Warmth stereotype had a significant positive total effect on subtle hiring discrimination via prejudice. However, Study 2 did not replicate this result possibly due to a limitation in selecting an actual country in AEC to represent the high competence-low warmth stereotype.

Drawing on past evidence in intergroup studies, Study 2 tested the effect of evaluators' cooperative/competitive mindsets on hiring discrimination. Study 2 revealed that the evaluators' cooperative or competitive mindset regarding the AEC did not affect their hiring decisions against highly-competent candidates in any of the hiring measures, which did not support this study hypothesis. Results offer practical implications for Thai decision-makers in preparation for AEC hiring.

Field of Study: Psychology	Student's Signature ....
Academic Year: 2017	Advisor's Signature ....

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Chapter 1

Introduction

Background

The hiring of professionals from ASEAN Economic Community (AEC) member countries has recently been accommodated. Thai labour market is expected to become more multicultural, as the movement and employment of selected professionals between the ASEAN member countries are encouraged (The ASEAN Secretariat, 2008). This change in the labour market poses a new challenge for Thai decision-makers, as past research has shown that it is difficult to make a faire judgment regarding highly-competent candidates from different countries.

Past research in social psychology has demonstrated that stereotypes, i.e. the beliefs that people have about other groups, lead to negative evaluations, negative emotions, and discriminative behaviours toward members of those groups (Cuddy, Fiske, & Glick, 2007; Devine, 1989; Fiske & Neuberg, 1990). In hiring discrimination studies, past research has also shown that candidates from negatively-stereotyped groups were more likely to be discriminated against compared to their counterparts from positively-stereotyped groups (Derous, Nguyen, & Ryan, 2009; Derous, Ryan, & Nguyen, 2012; Drydakis, 2012; Horverak, Sandal, Bye, & Pallesen, 2013).

Moreover, studies that focused on counter-stereotypic individuals also showed that stereotype effects are persistent. Evaluators use cognitive strategies to discount the counter-stereotypical information and arrive at their preferred outcome (Hewstone, Hopkins, & Routh, 1992a; Johnston & Hewstone, 1992; Kunda, Miller, &

Claire, 1990; Weber & Crocker, 1983). Thus competent individuals from negatively-stereotyped groups are also affected by their group stereotype.

Past studies have indicated that highly-competent candidates are likely to be judged according to their country's stereotypes rather than their qualifications. However, a main drawback of past research is that most of the hiring discrimination studies pitched one negatively-stereotyped group against another positively-stereotyped group, viewing stereotype as a unidimensional construct and limiting the comparison to only two countries. This current research fills the gap in the literature by adopting the stereotype content model (SCM; Fiske, Cuddy, Glick, & Xu, 2002) to investigate the effects of the stereotypes of four countries surrounding Thailand that vary in their competence and warmth stereotypes at the same time.

In addition, this research aims to investigate the effects of intergroup cooperation and competition mindsets on hiring discrimination since the MRA can be seen either as cooperation between countries or causing higher competition in the local labour market (Emerging Marketing Consulting, 2014; The Nation, 2013).

Finally, racial discrimination research has been focused on discrimination against Blacks compared to Whites in the United States (Byrnes & Kiger, 1988; Kelly, Ferson, & Holtzman, 1958; Kirschenman & Neckerman, 1990; McConahay, Hardee, & Batts, 1981; Terpstra & Larsen, 1980), where there are anti-racial discrimination laws, causing discrimination to change from blatant expressions to subtle expression (Dovidio & Gaertner, 2000, 2004; McConahay et al., 1981; Sears & Henry, 2003). Thus an investigation on the blatant and subtle aspects of hiring discrimination is needed for the Thai context where there is not yet an anti-discrimination law.

In sum, this research makes four contributions. First, it offers a theoretical extension to the SCM by investigating the effects of the warmth-by-competence stereotypes on hiring discrimination. Second, this research offers insight into how perceivers express their blatant and subtle discriminatory in the context where hiring discrimination legislation is absent. Third, this research demonstrates the effect of a cooperative and competitive mindset on hiring discrimination and suggests whether a cooperative mindset could reduce hiring discrimination. Finally, this research offers practical applications for Thai decision-makers to prepare for the approaching challenges in AEC hiring.

Literature Review

This literature review comprises four main parts. The first part introduces three constructs of intergroup bias: discrimination, stereotype, and prejudice. The second part introduces the mediating variable of the evaluators’ standards. The third part focuses on the effects of the evaluators’ cooperative or competitive mindset on their judgments and decisions. Finally, the last section summarizes this study’s hypotheses, presents the research framework, and addresses the innovations and contributions of this research.

Part 1: Discrimination, stereotyping, and prejudice

Researchers have distinguished three key constructs of intergroup bias, which are viewed as the cognitive (stereotyping), affective (prejudice), and behavioural components (discrimination) of intergroup bias (Whitley & Kite, 2010). This first part introduces the three constructs and their relations to job hiring.

Discrimination

According to Dovidio and Gaertner (2010), discrimination refers to the unequal treatment of a person or a group differently from others because of their group membership. Whitley and Kite (2010) offer a similar definition, that discrimination occurs when “individuals are singled out and treated unfairly because of race, gender, age, sexual orientation, disability status, or any other factor” (p.12). These unequal treatments are expressed in various ways, such as deliberate harm, refusing to help, negative nonverbal expression, negative evaluation, and other negative expressions (Alport, 1958; Dovidio, Hewstone, Glick, & Esses, 2013; Whitley & Kite, 2010).

Hiring discrimination

Whitley and Kite (2010) pointed out that discrimination in an organization occurs when organizations’ rules, policies, or the practice of the individuals in organizations result in different outcomes for the members of different groups. The current study focuses on hiring discrimination and two types of discriminatory expressions: blatant hiring discrimination and subtle hiring discrimination. Blatant hiring discrimination is defined as overt hiring decisions that are made with a directed effort to negatively affect the target group. Subtle hiring discrimination is defined as unequal employment treatments that are indirectly expressed and are restricted by the actors’ need to justify their action (Cuddy et al., 2007; Dovidio & Gaertner, 2000).

Organizational discrimination has attracted attention of researchers from various research fields, particularly sociology, psychology, and organization. Research in these fields has shown that individuals have been treated unequally based on social groups, such as race (Biernat, Collins, Katzarska-Miller, & Thompson, 2009; Biernat & Kobrynowicz, 1997; Frazer & Wiersma, 2001; James, 2000; Stewart & Perlow, 2001; Terpstra & Larsen, 1980), gender (Biernat & Fuegen, 2001; Biernat, Tocci, & Williams, 2012; Biernat & Vescio, 2002; Bosak & Sczesny, 2011; Eagly, Makhijani, & Klonsky, 1992; Glick & Fiske, 2001; Heilman, 2001, 2012), and age (Cox & Beier, 2014; Cuddy, Norton, & Fiske, 2005; Richardson, Webb, Webber, & Smith, 2013) . Among the many types of discrimination, one that has gained continual interest throughout the decades is racial discrimination, where an individual is discriminated against because of his or her race or ethnicity.

Early racial discrimination research focused on discrimination against Blacks compared to Whites in the United States (Byrnes & Kiger, 1988; Hirsch & Schumacher, 1992; Kelly et al., 1958; Kirschenman & Neckerman, 1990; McConahay et al., 1981; Terpstra & Larsen, 1980). Recently, there has been increasing interest in the unequal treatment between minority and majority ethnic groups in other countries, such as the Turkish vs. Norwegians (Horverak et al., 2013), Arabs vs. the Dutch (Derous et al., 2009; Derous et al., 2012), Arabs vs. the Swedish (Agerstrom, Bjorklund, Carlsson, & Rooth, 2012), and Albanian women vs. Greek women (Drydakis, 2012).

Direct discrimination has been observed via various measures such as hireability ratings (Dovidio & Gaertner, 2000; Frazer & Wiersma, 2001), starting salary offers (Drydakis, 2012), earning disparities (Li, 2000), invitations for job interviews (Agerstrom et al., 2012; Bertrand & Mullainathan, 2004; Drydakis, 2012), and recommendations for position.

However, research that measures intention to hire has reported a decreasing trend and has tended to show no race effect (Derous et al., 2009; Frazer & Wiersma, 2001; Stewart & Perlow, 2001). On the other hand, research has reported race effects in situations where evaluators can justify their discrimination (Dovidio & Gaertner, 2000; Hodson, Dovidio, & Gaertner, 2002; Krings & Olivares, 2007; Stewart & Perlow, 2001) or when a more subtle aspect of discrimination is measured such as perceived career advancements (James, 2000; Landau, 1995), confidence in the hiring decision (Stewart & Perlow, 2001), and perceived socially fit with co-workers and customers (Kirschenman & Neckerman, 1990).

Blatant vs. subtle hiring discrimination

Psychologists have proposed that racial discrimination has changed from direct expression to more indirect forms (Dovidio & Gaertner, 2000, 2004; McConahay et al., 1981; Sears & Henry, 2003). For example, Dovidio and Gaertner (2000) have suggested that people will not act inappropriately in situations in which discrimination would be obvious in evident but will express prejudice and discrimination in situations when they can justify or rationalize their actions on the basis of other factors besides race. For example, when the strength of the candidate's qualifications are ambiguous (Dovidio & Gaertner, 2000; Hodson et al., 2002), when the characteristics of the job allow the perceiver to rationalize that that a candidate from a certain social group is not suitable (Heilman, 2001, 2012; Lyness & Heilman, 2006; Stewart & Perlow, 2001; Terpstra & Larsen, 1980), or when the criteria for making a decision allow the candidate to justify his or her bias (Hodson et al., 2002; Norton, Vandello, & Darley, 2004).

Moreover, subtle discrimination can also be observed according to type of measurement used to measure discriminatory behaviour. Studies have reported race effects on more subtle behaviours such as perceived career advancements (James, 2000; Landau, 1995), confidence in the hiring decision (Stewart & Perlow, 2001), perceived socially fit with co-workers and customers (Kirschenman & Neckerman, 1990), and probationary periods (Bagilhole, 1993; Fryer, Goeree, & Holt, 2005).

Research has found that even when Black workers receive similar job performance ratings compared to their White peers, they tend to receive lower ratings on their promotion potential (James, 2000; Landau, 1995), are less likely to be promoted (Roth, Huffcutt, & Bobko, 2003), and have to wait longer for a promotion (Maume, 1999). Moreover, Black workers in non-managerial positions are also less likely to advance to managerial positions compared to White workers (Maume, 1999; Smith & Elliott, 2002).

Stewart and Perlow (2001) proposed that assessing evaluator confidence in the hiring decision can help reveal subtle discrimination. Their study showed that the respondents did not commit blatant bias and hired Black and White candidates equally. Instead, they found significantly differences in the participant's confidence rating, suggesting that confidence in the hiring decision can help reveal participants' subtle discrimination.

Another way that discrimination can manifest is in how individuals perceive whether the candidate will socially fit within the organization or not. Research has found that candidates or workers from negatively-stereotyped groups are discriminated against on the basis of social aspects, such as maintaining workplace harmony, or maintaining relationships with customers (Kirschenman & Neckerman, 1990).

For example, Kirschenman and Neckerman (1990) carried out qualitative studies among employers in the U.S. and found that many employers justified their discrimination by arguing that hiring Black workers would disrupt workplace harmony because the White workers would be upset and company productivity would decrease. Moreover, in their interviews some employers also believed that hiring Black workers would cause their companies to lose their White customers.

Finally, there is suggestive evidence concerning probationary period discrimination, where the participants felt that probationary hiring periods were needed to make them feel more confident in hiring an out-group (Fryer et al., 2005).

Stereotyping

According to Dovidio et al. (2013), stereotypes are comprised of the knowledge and beliefs about a group and its members that come from shared beliefs in the perceivers' culture. Dovidio and Gaertner (2010) pointed out that the term stereotype was first introduced to refer to the typical pictures that come to mind of a social group (Lippmann, 1942). However, it was later proposed to contain beliefs about the characteristics, attributes or traits characterizing its typical members as well as other qualities, such as social roles or expected behaviours that people use to distinguish between social groups. Thus stereotypes link group members to their group's typical attributes (Correll, Judd, Park, & Wittenbrink, 2013) and they influence how people think about and respond to that group and its members (Dovidio, Hewstone, Glick, & Esses, 2010; Dovidio et al., 2013).

Traditionally, stereotyping has been viewed as a faulty thought process (Dovidio & Gaertner, 2010); however, researchers now view stereotyping as a basic cognition process that humans use to handle complex and large amounts of information and stimuli without having to invest their full attention or cognitive resources (Cottrell & Park, 2013; Dovidio et al., 2013).

How stereotypes cause decision bias against highly-competent individuals

The continuum model of impression formation (Fiske, Lin, & Neuberg, 1999; Fiske & Neuberg, 1990) offers an explanation of how a social group's stereotypes affect evaluators' judgments and decisions. The model posits that there are two main processes: category-based and individuating processes. These two processes are on the opposing ends of a continuum, reflecting a degree to which perceivers utilize a category-based process or an individuating process to form their impressions.

The category-based process is when perceivers use a target's category labels to base their judgments of the target. The category labels may be explicit social label cues, such as Black, Jewish, or indirect social label cues, such as common names for a Black person. Social label cues that are easy to organize and access from memory, that are physically manifested, and that contrast with the context are more likely to be used to categorize the target. For these reasons, the race of a target is one of the most efficient category cues that can trigger the category-based process. As a result, the target's social category will predict the evaluators' affects, cognitions, and behavioural tendencies in relation to the target.

The individuating process is when perceivers use a target's particular attributes to base their judgments when perceivers cannot categorize a target. Under these conditions, perceivers with motivation and available cognitive resources are predicted to form their impression of the target through attribute-by-attribute integration (also called piecemeal integration). Thus the targets' attributes will predict the evaluators' affects, cognitions, and behavioural tendencies in relation to the target.

In addition, the model proposes that when encountering a counter-stereotypic target, i.e. when attributes are incongruent with the initial categorization, perceivers will attempt to recategorize based on the information at hand. When they cannot recategorize the target, piecemeal information processing occurs and the target will be evaluated based on his or her individual attributes.

In their hallmark study, Fiske, Neuberg, Beattie, and Milberg (1987) showed that when salient categories cues were available, i.e. when the targets are easy to categorize and the attributes are congruent with the target social category, the respondents made spontaneous category-based judgments. However, when the attributes were incongruent with the target's social category, the perceiver's impression was based on the target's attribute information rather than the target's social category. This result supports the proposition that when perceivers fail to recategorize, they are more likely to base their judgment on individuating information.

Persistence in stereotyping the counter-stereotypic individual

In contrast to the aforementioned findings, later research has shown that inconsistence between the target's attributes and their group stereotype alone is not sufficient to influence perceivers' to base their judgments on the target's attributes. Gawronski and Creighton (2013) noted that the individuating process rarely occurs and social stereotypes are persistent even when perceivers pay high attention to their task. Upon encountering individuals that deviate from their group's stereotype, instead of abandoning the initial stereotype and relying purely on piecemeal information processing, perceivers dismiss the inconsistency by creating reasons to explain the discrepancies (Kunda et al., 1990), or create a new sub-category for the target and maintain their overall stereotype of the target social group (Hewstone et al., 1992a; Johnston & Hewstone, 1992; Weber & Crocker, 1983).

For example, Hewstone et al. (1992a) studied stereotypic beliefs about policemen. They gathered data from young students whose schools participated in police-school liaisons in which full-time school police officers were attached to secondary schools to develop a close contact with the pupils and their teachers. They found that school police officers were rated positively but this positive perception was not generalized to the police in general.

Thus from this evidence, it is reasonable to expect that when Thai perceivers evaluate highly-competent candidates who may deviate from their racial stereotype, perceivers will rely on the racial stereotype rather than the candidate's competency to arrive at their hiring decisions.

Although past research has firmly established the effect of stereotypes on individual decisions, most studies have compared only one negatively stereotyped group to another positively stereotyped group. In order to understand the effect of a stereotype Thais have toward multiple countries at the same time, this study uses the stereotype content model (SCM) framework (Fiske et al., 2002), which introduces systematic principles that shape the content of stereotypes cross-culturally.

The stereotype content model and hiring discrimination

Fiske, Cuddy, Glick, and Xu (2002) proposed the SCM framework in order to capture and organize stereotypes of different groups in society based on the warmth and competence dimensions. The warmth dimension includes characteristics such as morality, sincerity, kindness, friendliness, and warmth. The competence dimension includes characteristics such as being capable, intelligent, confident, competitive, and competent (Cuddy et al., 2007; Fiske et al., 2002).

As illustrated in Figure 1, the interaction between the two core dimensions creates four clusters of stereotypes and associated distinct emotions: the high warmth-high competence stereotyped group (HW-HC), the low warmth-low competence stereotyped group (LW-LC), the high warmth-low competence stereotyped group (HW-LC), and the low warmth-high competence stereotyped group (LW-HC). The stereotypes of the admired group and contempt group are univalent, while the stereotypes of the pitied group and the envied group are, on the other hand, ambivalent.

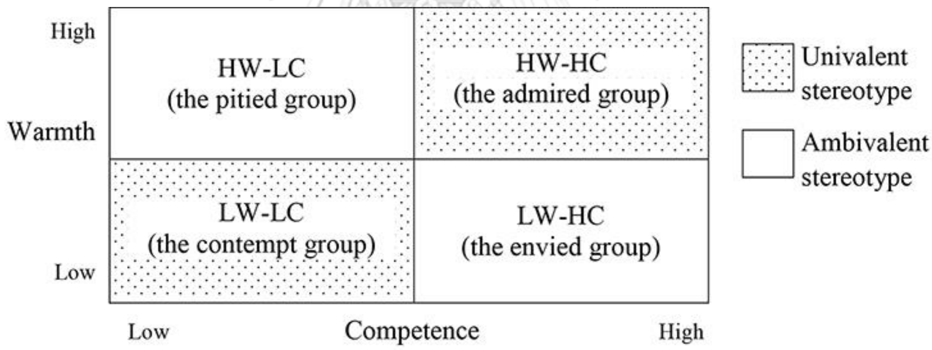

Figure 1. Ideal stereotype content model clusters based on the SCM. Adapted from Fiske et al. (2002), p. 881.

Cuddy et al. (2007) further proposed “the behaviours from intergroup affect and stereotypes (BIAS) map framework”, which predicts that distinct emotions are linked to each stereotype cluster group—the HW-HC group with admiration, the LW-LC group with contempt, the HW-LC group with pity, and the LW-HC group with envy and anger—and that these discrete emotions mediate the effects of stereotypes on behavioural tendencies. The BIAS map model also posits that the warmth dimension is the leading dimension and predicts active discriminatory behaviours (e.g. attacking), while the competence dimension predicts passive discriminatory behaviours (e.g. exclusion, neglecting).

However, in the context of hiring, past studies have suggested that the competence dimension is the leading dimension that predicts blatant hiring discrimination, which is contrary to the BIAS map predictions. Past studies have shown that candidates from social groups that are perceived as low competent are likely to be discriminated against, regardless of how they are perceived on the warmth dimension. Examples include candidates from the incompetent and cold stereotyped group, such as Blacks when compared to Whites (Dovidio & Gaertner, 2000), candidates from the incompetent but warm stereotyped group such as females when compared to males (Glick & Fiske, 2001; Glick, Fiske, Mladinic et al., 2000), and older candidates when compared to younger candidates (Cuddy et al., 2005; Richardson et al., 2013; Rupp, Vodanovich, & Crede, 2006).

On the other hand, past studies have suggested that perceivers rely on the warmth stereotype dimension to justify their subtle bias decisions. Individuals from social groups that are stereotyped as being cold but competent, such as Asian Americans (Berdahl & Min, 2012; Lai & Babcock, 2013), face subtle discrimination, such as career advancement discrimination, because they are perceived as lacking in social skills compared to Whites.

Lai and Babcock (2013) found that when the position involves social skills, the female participants were less likely to hire or promote Asian than White candidates. The female participants that perceived Asians as having low social skills were more likely to choose White candidates and also were more likely to promote White candidates to the position. They pointed out that the deficiency in Asians' social skills perceived by female participants influenced them to engage in hiring discrimination.

In addition, there is supporting evidence of the interactions between the warmth and competence dimensions. Research that investigated the relationship between these two key dimensions has shown that people have a natural tendency to perceive a warm person as incompetent and perceived a cold person as competent (Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Yzerbyt, Provost, & Corneille, 2005; Yzerbyt, Kervyn, & Judd, 2008), suggesting that perceivers use one dimension to signal the degree of how the other dimension is.

Thus it is possible that blatant discrimination would be the most severe among the high warmth-low competence group because they would appear to be the least competent, and subtle hiring discrimination would be the most severe among the low warmth-high competence stereotyped group because they would appear to be the least warm.

Prejudice

Another related but distinct construct is prejudice. Prejudice has been defined as the evaluations (Correll et al., 2013; Dovidio et al., 2013; Whitley & Kite, 2010) or emotional responses (Cuddy et al., 2007) of a group or its members. According to Dovidio and Gaertner (2010), prejudice is a negative evaluation or a negative affective response or both toward a target in a situation when those negative evaluations or affective responses are based on the target group membership.

Prejudice and stereotyping are two distinct constructs and exert their effects differently. According to Devine (1989), stereotypic knowledge is acquired early in life and is activated automatically and equally strong for both low- and high-prejudice individuals.

Past research viewed prejudice as motivational factors that treated perceivers' level of prejudice as a moderating variable. For example, the continuum model of impression formation posits that prejudice can decrease the tendency to use the individuating process; the perceiver's personal values can lead him or her to form particular impressions in a category-based manner (Fiske & Neuberg, 1990). Moreover, motivation to avoid prejudice also moderates the tendency to engage in stereotyping versus individuating (Bodenhausen & Macrae, 1998; Devine, 2009; Devine & Monteith, 1999).

When evaluating a job applicant, perceivers with a high level of prejudice toward the target's social group are motivated to form a negative evaluation of the target in order to maintain their negative attitude (Horverak et al., 2013; Krings & Olivares, 2007; Sherman, Stroessner, Conrey, & Azam, 2005). Consequently, they are more likely to rely on their negative category-based process to arrive at their desired final judgments.

As past studies have also shown that evaluators' prejudice can also motivate the evaluator to discriminate, it is important to distinguish the effect of stereotypes from the perceivers' level of prejudice and to investigate whether stereotypes alone can predict discriminatory behaviour or not. In other words, the evaluator's level of prejudice needs to be controlled for in order to test the causality of the stereotypes regarding hiring discrimination.

In addition, past studies also suggested an alternative view that perceiver's level of prejudice mediates the effects of stereotypes on discriminating behaviour. For example, Kawakami, Dion, and Dovidio (1998) showed that perceivers who have higher level of racial prejudice have higher tendency to over-categorize the target from groups they prejudice against and they also have higher tendency to attribute stereotypic traits to the target. Cuddy et al. (2007) also demonstrated that emotional prejudice mediated the effects of warmth-by-competence stereotypes on discriminating behaviours in their proposed BIAS map model.

The stereotype content model and hiring discrimination in Thailand

Adopting the SCM, Boonyasiriwat and Puttaravuttiporn (2015) surveyed 374 Thai participants nationwide using a telephone survey. Each participant rated 3 AEC countries on the stereotypic belief scale, consisting of 12 adjective pairs developed specifically to describe AEC citizens. (The warmth scale comprised kind-unkind, generous-ungenerous, cheerful-remorse, friendly-unfriendly, attractive-unattractive, honest-dishonest; competence scale comprises disciplinary-undisciplined, intelligent-unintelligent, diligent-lazy, competent-incompetent, rich-poor, and tolerant-intolerant).

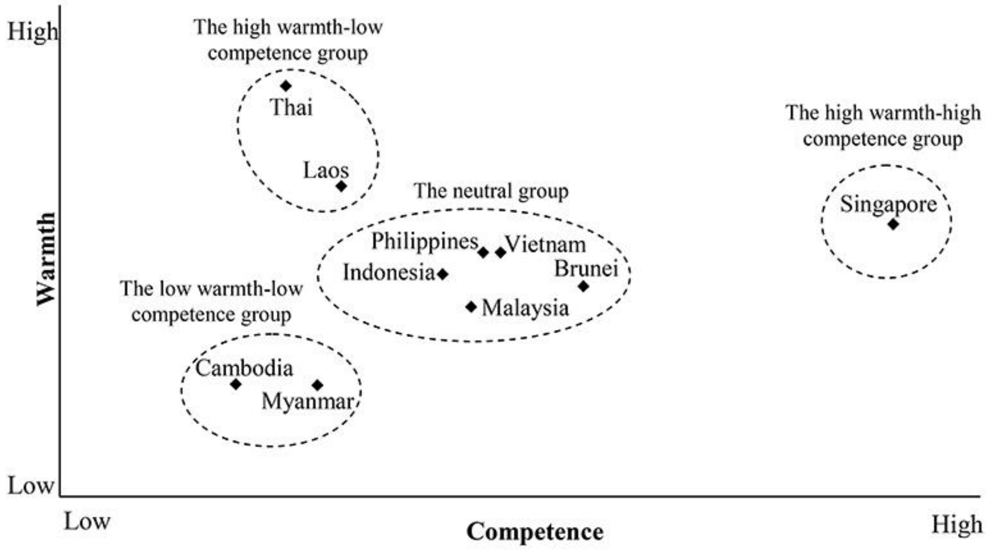

Figure 2. The stereotype content model clusters of Thais based on the SCM among AEC countries, from Boonyasiriwat and Puttaravuttiporn (2015).

The cluster analysis shows that four clusters were identified, as shown in Figure 2. The admired group comprises Singapore. The pitied group comprises Thailand and Laos. The contempt group comprises Cambodia and Myanmar, and the rest (the Philippines, Vietnam, Indonesia, Malaysia, and Brunei) are located in the middle.

Many studies in the U.S. have shown a steady decline in blatant prejudice and discrimination because prejudice and discrimination have been viewed as unacceptable due to the legislation against discrimination (Dovidio & Gaertner, 2000, 2010; Huddy & Sears, 1995; Sears & Henry, 2003). In Thailand, however, there is not yet an anti-racial discrimination law. Thus it is reasonable to expect that Thai decision-makers would be at more liberty to show both blatant and subtle discrimination against candidates from other AEC countries.

Thus from the past evidence it is possible that Thai perceivers would use the competence stereotype as a social cue to arrive at the decision whether the candidate should be hired or not; and use the warmth stereotype to infer the candidate's social skills and judge whether the candidate would socially fit the company and customers or not. Countries that are stereotyped as high warmth-low competence would be at higher risk in facing blatant discrimination because they would appear to be the least competent, and countries that are stereotyped as low warmth-high competence would be the most vulnerable to subtle hiring discrimination because they would appear to be the least warm. Further, stereotypes would exert their effects on both blatant and subtle hiring discrimination even when the perceivers' level of prejudice is controlled for.

Part 2: The stringent evaluation standard

According to the continuum model of impression formation, the successful individuating process depends on both the attention and interpretation of the evaluators. When encountering a counter stereotypical target, the unexpected information is likely to draw attention from the perceivers, but may not necessarily result in individuating impression formation, because the perceiver is interpreting the target attributes in order to discount inconsistent information (Klein & Kunda, 1992). For this reason, the interpretation of the target's attributes plays an important role in the process of impression formation and is the focus of this study.

This study proposes to integrate a mediating variable from shifting standard research, and the confirmatory standard, or as it is referred in this study, the stringent evaluation standard (Biernat & Kobrynowicz, 1997), to help explain how people evaluate and make judgments of an out-group with a positive performance.

The mediating effect of the stringent evaluation standard

When perceivers encounter a counter-stereotypic individual, particularly in a successful out-group, past research has shown two contrasting results. On the one hand, a successful out-group person can be "contrasted" with his or her group's negative stereotype and be evaluated extremely positively. For example, a Black student with high academic score can be evaluated more positively and more extremely compared to a White student with a similar score. On the other hand, many studies have demonstrated that a successful out-group individual can be "assimilated" to his or her group stereotype. For example, a Black job candidate can be evaluated poorly and discriminated against when compared to a White candidate with similar qualifications.

The fact that the counter-stereotypic target can be assimilated to or contrasted away from a group's negative stereotype was investigated extensively by Biernat and colleagues. Biernat and Kobrynowicz (1997) demonstrated that participants use different standards to assess different social groups by asking participants to view a candidate of a different gender (male or female) or different race (Black or White) that had applied for a job position. They then presented the participants with a list of nine relevant skills and asked them to indicate how many examples of each skill they would require of this applicant before feeling confident that the candidate met the minimum standard to perform the skill or that the candidate had the ability to equally perform the skill as his or her counterparts. Their results showed that female and Black targets needed fewer examples to show that they met the minimum standard but they needed more evidence to demonstrate that they had the ability to perform the skill compared to males and White targets. They concluded that participants set lower minimum standards but higher confirmatory standards for female than male and for Black than for White applicants, which showed that stereotypes can affect one's judgment via contrast and assimilation depending on the context of the judgment.

Roles of zero-sum vs. non-zero-sum behaviours

One of the contexts that affect a perceiver evaluation is whether the decision represents zero-sum or non-zero sum behaviour. Zero-sum behaviours are actions whereby the gain of one person means the loss of another, such as decisions for hiring, promotion or the allocation of valuable assets. Biernat and Vescio (2002) suggested that in this situation a target from negatively-stereotyped group is more likely to face a "stringent evaluation standard" in which the perceivers would need more evidence to counter their negative stereotype about the target group. Non-zero-sum behaviours on the other hand are actions according to which a gain of a person does not affect the other person. In this situation a target from a negatively-stereotyped group is more likely to be contrasted away from his or her group stereotype and a "lenient evaluation standard" will be used.

For example, studies have shown that female workers receive compliments or are evaluated more positively than male workers, but when decisions for promotion or a pay raise are made, female workers are less likely to be rewarded than male workers (Biernat & Kobrynowicz, 1997; Biernat et al., 2012) because verbal compliments are unlimited (non-zero-sum) while promotion or a rise in pay is limited (zero-sum).

In sum, past evidence suggests that when encountering a highly-competent target, evaluators will interpret the target attributes in the way that they assimilate the target social stereotypes. As a result the evaluators apply stricter standards in assessing highly-competent candidates from low-competent stereotyped groups, suggesting that the stringent evaluation standard mediates the effect of stereotypes on hiring discrimination.

Part 3: The effect of perceived cooperation or competition

Reynolds and Oakes (2000) pointed out that intergroup cooperation and competition go beyond small group interaction, as groups can be a result of cognitive rather than actual interpersonal interaction. In this sense intergroup refers to a situation in which individuals perceive themselves to be a part of a group (Tajfel, 1970; Tajfel, Billig, Bundy, & Flament, 1971).

The effect of competitive and cooperative mindsets

Not only does actual competition result in intergroup bias; perceived competition also has yielded similar results (Bornstein, Budescu, & Zamir, 1997; Esses, Jackson, & Armstrong, 1998). Esses et al. (1998) manipulated Canadian participants' perception of competition by presenting them with an article discussing a fictitious immigrant group called the Sandirians and focusing on the scarcity of jobs in Canada and on the successful participation of skilled immigrants in the job market compared to the non-competition group, where there was no mention of the job market but other general aspects about the immigrants. In both conditions the immigrant group was described as highly competitive and warm. Esses et al. found that under a competitive condition the respondents rated the immigrant group less favourably than the non-competition group.

In addition, their open-ended data showed that the participants in the competitive condition listed more negative thoughts about the target and the target's attributes were interpreted in a negative light. The research team hypothesized that the immigrants' positive attributes were viewed as a threat to the Canadian participants because they were competing for limited resources, i.e. zero-sum belief. Their subsequent study determined that highly-prejudiced people hold less favourable attitudes because they believe that any gains that immigrants might make are at their own expense (Esses et al., 1998).

Intergroup competition also carries over to uninvolved out-groups (Sassenberg, Moskowitz, Jacoby, & Hansen, 2007). Based on realistic group theory, that following competition social categories are applied in a rigid manner, Sassenberg et al. (2007) hypothesized that competition increases prejudice, regardless whether the derogated out-group is involved in the competition or not. Their experiment showed supporting evidence; the participants were asked to remember an event involving either competition or cooperation (study 1) or to participate in a competitive, cooperative, or individual assessment of their knowledge (study 2 and 3). Subsequent measures indicated that competition results in higher levels of prejudice, even when the target is not directly related to the intergroup context.

Prominent social psychology theories that offer an explanation to account for this perceived intergroup cooperation and competition include the social categorization (Brewer, 1979; Tajfel et al., 1971) and the realistic group conflict theory (Bobo, 1983; Sherif, Harvey, White, Hood, & Sherif, 1961). According to the social categorization theory (Brewer, 1979; Tajfel et al., 1971), social categorization transforms the cognitive representation of the perceivers. When groups are made salient, the social categorization process occurs and results in in-group enhancement, out-group homogeneity, and perceived distance between in-group and out-group.

Cooperation reduces bias because it reduces the salience of the intergroup boundary, thus making people perceive themselves and their target (out-group) as one superordinate group, resulting in a greater likelihood for evaluators to individuate an out-group target. Under a cooperative condition the participants from two groups view themselves as one group to a greater extent compared to a non-cooperation condition, and their rating of another group in terms of liking and honesty also improves under a cooperative condition (Gaertner, Mann, Dovidio, Murrell, & Pomare, 1990).

Another line of research that explores the role of group competition in relation to intergroup bias is based on the realistic group conflict theory (Bobo, 1983; Sherif et al., 1961; Zárate, Garcia, Garza, & Hitlan, 2004). According to this theory, intergroup hostility is a result of competition or conflicting goals between groups, and competition for limited resources leads to conflict between groups. Perceived threats also play an important role in increasing intergroup bias; when competition increases, threats and conflicts also increase, resulting in hostility toward the target group (Stephan & Mealy, 2011; Stephan & Stephan, 1996; Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998; Zárate et al., 2004).

This line of research is rooted in three large-scale experiments from Sherif and colleagues at boys summer camps (Sherif et al., 1961). The experiments set two groups of 11-12 year old boys, with no pre-existing friendship prior to the experiment, in group competition. The research team then observed hostile and conflict behaviours between the two groups. The research team found that the hostility between the groups was a result of reciprocally-competitive activities where a gain in one group resulted in a total loss of another group. The removal of competition thus resulted in reduced hostility between the groups (Sherif, 1958; Sherif et al., 1961).

Cooperative/competitive environments and the SCM

The literature suggests that a cooperative and competitive environment has a greater effect on the envied group and the pitied group compared to other stereotyped groups. Glick (2005) pointed out that when a society is stressed or experiences widespread misfortunes and instability, the members of the envied group are likely to be directly harmed because they are perceived to have both the capability and intention to take advantage of or disrupt society. In the past, members of high status groups in a stressed society have been subjected to "scapegoating," such as the genocidal mass slaughter of Tutsi in Rwandan (Glick, 2005). Based on this notion, Cuddy, Fiske, and Glick (2008) proposed that a target from groups that are viewed as highly competent but lack warmth will be helped, for example, will be hired or chosen as a team member under normal conditions, but will face blatant discrimination when society is stressed.

As for the high warmth-low competence stereotyped group, the SCM suggests that this group elicits pity, which is an ambivalent emotion that includes both compassion and also a sense of superiority over the target group. Candidates from the pitied group are perceived as non-threatening and are more likely to be helped or assisted when they are needed compared to other groups. As suggest by the realistic group conflict theory—that willingness to help the out-group increases under a cooperative environment and decreases under a competitive environment (Bobo, 1983; Sherif et al., 1961; Zárate et al., 2004), members of the pitied group should benefit from proactive help compared to members of other stereotyped groups.

In sum, past research has suggested that the cooperative mindset can lead to lower categorization and thus reduce decision bias while the competitive mindset increases intergroup bias resulting in a higher level of outgroup discrimination. Moreover, under a competitive mindset, evaluators are expected to have a higher level of bias against the high competence-low warmth stereotyped group compared to other groups, and under a cooperative mindset, the evaluators are expected to help the low competence-high warmth group the most.

Research Questions

This study carried out two experiments in order to answer each research question separately.

1. When deciding to hire highly-competent candidates from different races, do Thai people discriminate against candidates from particular races?
2. Do Thai people that perceive the AEC as cooperation among countries exhibit less hiring discrimination against candidates from member countries compared to those that perceive the AEC as competition over resources?

Research Objectives

1. To test whether Thai people make blatant and subtle discriminatory hiring decisions against highly-competent candidates from different countries differently according to their country's competence and warmth stereotypes.
2. To test whether Thai people with a cooperative mindset toward the AEC exhibit less hiring discrimination, both blatantly and subtlety, against highly-competent candidates from other countries compared to those with a competitive mindset toward AEC.
3. To test whether an increase in the stringent evaluation standard explains the hiring discrimination process.

Scope of Study

This study used a experimental design. There were two studies. Study 1 used a 2 (competence stereotype: high vs. low) x 2 (warmth stereotype: high vs. low) between subject design. Study 2 used a 2 (competence stereotype: high vs. low) x 2 (warmth stereotype: high vs. low) x 2 (mindset: cooperative vs. competitive) between subject design.

Study 1 variables

<u>Independent variables</u>

1. Competence stereotype: Categorical variable with two levels – high competence and low competence
2. Warmth stereotype: Categorical variable with two levels – high warmth and low warmth

<u>Dependent variables</u>

1. Blatant hiring discrimination: Interval scale
2. Subtle hiring discrimination: Interval scale

<u>Covariate variable</u>

1. Prejudice level: Interval scale measured by the feeling thermometer

Study 1 hypothesis development

Past research has suggested that discrimination can be divided into blatant hiring discrimination and subtle hiring discrimination and that these two dimensions are not dependent on each other (Dovidio & Gaertner, 2000, 2004; McConahay et al., 1981; Sears & Henry, 2003). Psychologists claim that the changes in society, such as the introduction of anti-discrimination laws, have been a key contribution to the changes in the individual expression of prejudice and discrimination (Dovidio & Gaertner, 2000, 2004). Since there is not yet anti-racial discrimination law in Thailand, Thai people may not inhibit their blatant discrimination but express it freely. For this reason, this study proposes to examine the two dimensions of hiring discrimination separately.

Drawing on the continuum model of impression formation (Fiske et al., 1999; Fiske & Neuberg, 1990), it can be predicted that when evaluators review candidates' resumes, they will use their nationality as a category label on which to base their judgments of the target as result evaluators will rely on the candidate's country stereotype relative to the candidate's qualifications.

In addition, the SCM (Cuddy et al., 2007; Fiske et al., 2002) posits that stereotypes can be distinguished into the warmth and competent dimensions. Past evidence on the stereotypes effect are mixed. On the one hand, research identified that the warmth stereotype is the leading dimension that predicts active behaviour while the competence stereotype predicts passive behaviour (Cuddy et al., 2007). On the other hand, past research on hiring discrimination suggests that the competence stereotype is the leading dimension that predicts blatant discrimination while the warmth stereotype predicts subtle hiring discrimination.

Moreover, research also suggest that there is interaction between the competence and the warmth stereotype as people have a natural tendency to perceive a warm person as incompetent and perceive a cold person as competent (Judd et al., 2005; Yzerbyt et al., 2005; Yzerbyt et al., 2008). Thus candidates from countries that are stereotyped as having high warmth-low competence would appear to be the least competent and would be at higher risk in facing blatant while candidates from countries that are stereotyped as low warmth-high competence would appear to be the least warm and would be the most vulnerable to subtle hiring discrimination.

From the past evidence, this research hypothesize that stereotypes can be distinguished into the warmth and competence dimensions and both dimensions affect the blatant and subtle hiring discrimination. The highly-competent candidates from the negatively stereotyped group, i.e. low warmth and low competence groups, would face higher blatant and subtle hiring discrimination. In addition, the two stereotypes interact such that the effect of competence stereotype varied by the effect of the warmth stereotype and the effect of warmth stereotype varied by the effect of the competence stereotype.

Finally, as stereotypic knowledge is acquired early in life and is activated automatically and equally strong for both low and high-prejudice individuals (Devine, 1989), stereotypes are expected to affect both blatant and subtle hiring discrimination when the perceivers' level of prejudice is controlled for. From this evidence, Hypothesis 1 was developed.

Hypothesis 1

Figure 3 illustrates the research framework for hypothesis 1. From this framework there are three specific hypotheses. Each hypothesis was separated into 2 sets according to the two types of hiring discrimination.

H1.1: The competent stereotype has a direct effect on blatant (H1.1a) and subtle hiring discrimination (H1.1b) such that candidates from high competence stereotyped countries receive lower blatant and subtle hiring discrimination, when controlling for prejudice.

H1.2: The warmth stereotype has a direct effect on blatant (H1.2a) and subtle hiring discrimination (H1.2b) such that candidates from high warmth countries receive lower blatant and subtle hiring discrimination compared to candidates from low warmth stereotyped countries, when controlling for prejudice.

H1.3: There is an interaction between the competence and warmth stereotype on blatant (H1.3a) and subtle hiring discrimination (H1.3b) such that the effect of the competent stereotype on blatant hiring discrimination is greater among high warmth stereotyped groups compared to low warmth stereotyped groups, when controlling for prejudice. On the other hand the effect of the warmth stereotype on subtle hiring discrimination is greater among high competence stereotyped groups compare to low warmth stereotyped groups, when controlling for prejudice.

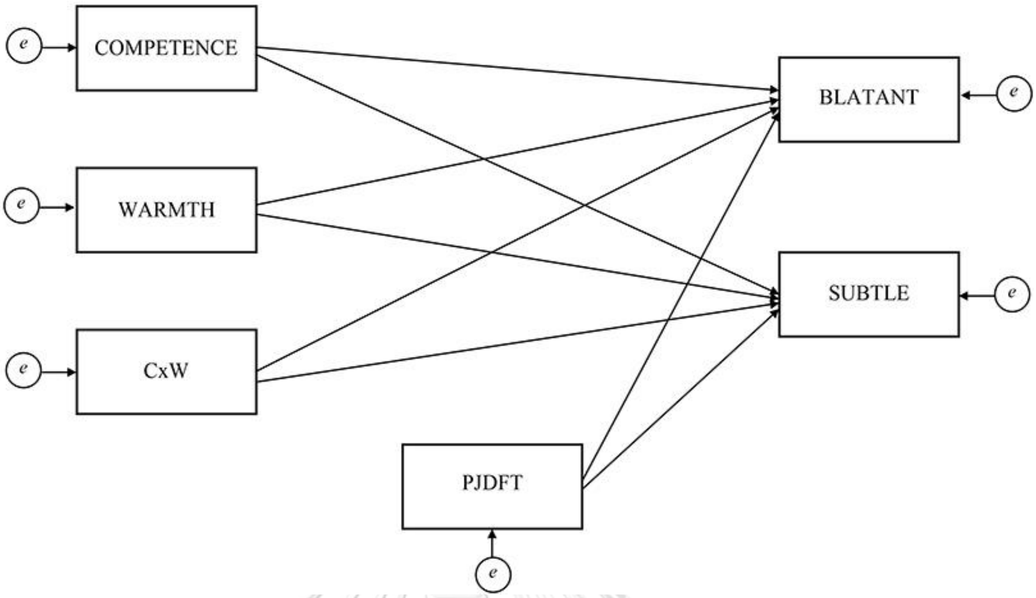

Figure 3. Conceptual model of Study 1 main model (Model 1).

Alternative models when prejudice is a mediator

This research also proposed alternative models that reposition perceiver’s level of prejudice as a mediator of the effects of warmth-by-competence stereotypes on blatant and subtle hiring discriminating. The conceptual model is shown in Model 2 (see Figure 4) and Model 3 (see Figure 5). Model 2 is the full model that has all possible parameters and Model 3 is a parsimonious model that has the highest explanatory power.

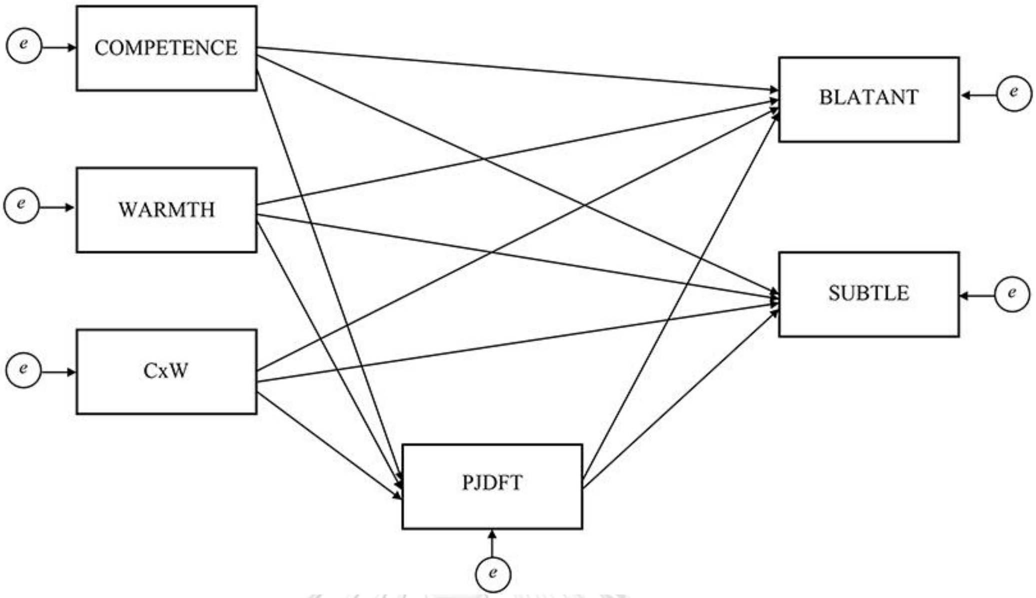

Figure 4. Conceptual model of Study 1 alternative model (Model 2).

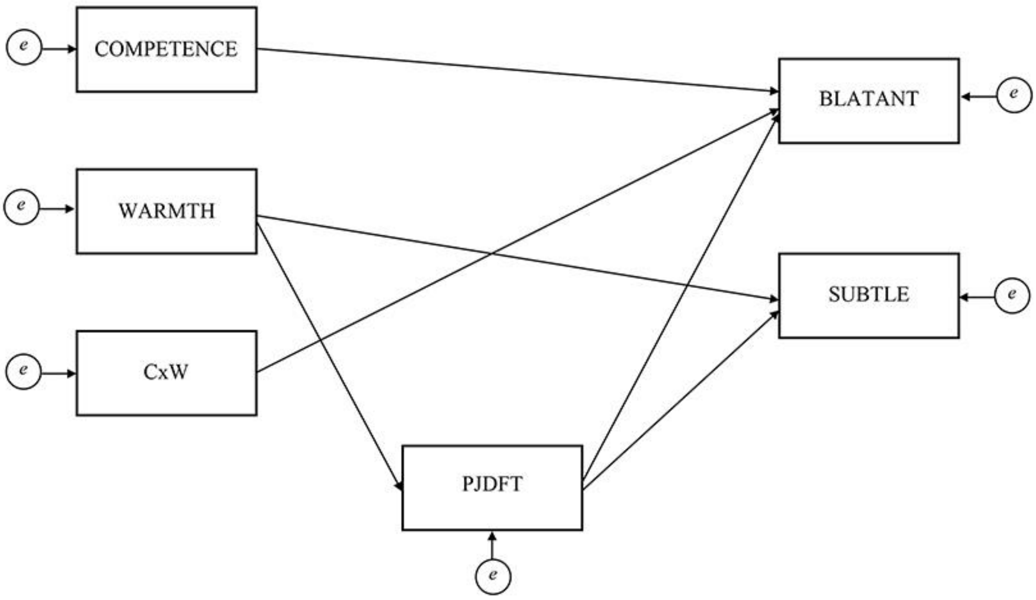

Figure 5. Conceptual model of Study 1 parsimony model (Model 3).

Study 2 variables

Independent variables

1. Competence stereotype: Categorical variable with two levels – high competence and low competence
2. Warmth stereotype: Categorical variable with two levels – high warmth and low warmth
3. Evaluator's mindset toward AEC: Categorical variable with two levels – cooperative mindset and competitive mindset

Dependent variables

1. Blatant hiring discrimination: Interval scale. Measured by (a) recommendation discrimination and (b) salary recommendation
2. Subtle hiring discrimination: Interval scale. Measured by (a) subtle hiring discrimination, (b) probation placement discrimination, and (b) probation time discrimination

Mediating variable

1. Stringent evaluation standard: Interval scale

Covariate variables

1. Prejudice level: Interval scale measured by the social distance scale
2. Respondents' age
3. Respondents' gender
4. Respondents who know or did not know someone from other AEC countries besides Thailand
5. Respondents' area of study

Study 2 hypothesis development

According to social categorization theory (Brewer, 1979; Tajfel et al., 1971) and the realistic group conflict theory (Bobo, 1983; Sherif et al., 1961), in a competitive environment evaluators will increase their tendency to categorize the candidate based on his or her nationality and base their judgments on the negative stereotypic belief, and consequently, out-group candidates are more likely to be discriminated against. On the other hand, in a cooperative environment, evaluators will reduce their intergroup bias and increase their tendency to view candidates less stereotypically. Thus it is hypothesized that perceived competition within the AEC should yield negative consequences for out-group candidates, while perceived cooperation within the AEC will result in less hiring discrimination. As a result the interactions between the evaluators' mindsets and the stereotypes' effects are expected such that the effects from stereotypes are greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.

In addition, past literature suggests the interaction between cooperative/competitive mindsets, and the competence and warmth stereotypes. Studies have found that cooperative and competitive environments have greater effects among ambivalent stereotyped groups, i.e. the envied group and the pitied group (Cuddy et al., 2007, 2008; Fiske et al., 2002; Glick, 2005) than other stereotype combination groups.

For the envied group (high competence-low warmth stereotype), under normal and cooperative circumstances, they are less likely to be discriminated against because of the stereotype of them being highly competent. However, past research has indicated that, when entering a competitive environment or when a society enters a widespread misfortune or instability, this group is likely to pose a high threat and thus will be a target of elimination (Cuddy et al., 2007, 2008; Fiske et al., 2002; Glick, 2005). For this reason there should be a significant difference between discrimination against candidates from the envied group in cooperative versus competitive environments.

As for the pitied group (low competence-high warmth stereotyped), this group is perceived as non-threatening and is more likely to be helped or assisted when they are compared to other groups (Cuddy et al., 2007; Fiske et al., 2002). Thus, candidates from this group should benefit from the proactive help from other countries under cooperation compared to candidates from other countries. Consequently, discrimination scores should significantly decrease when evaluators have a cooperative mindset.

Finally, past evidence suggests that when encountering a highly-competent target, evaluators will interpret the target attributes in the way that they assimilate their impression of the target to the target social stereotypes (Biernat & Kobrynowicz, 1997; Biernat et al., 2012). As a result they are more likely to apply stricter standards in assessing highly-competent candidates from low competence stereotyped groups because they would need more evidence to confirm that the candidate would be suitable for the position. Thus the stringent evaluation standard should mediate the effect of stereotypes on hiring discrimination. From this evidence, the second experiment was designed to test the following hypotheses (hypothesis 2 and 3).

Hypothesis 2:

Hypothesis 2 includes 7 hypotheses. Each hypothesis was separated into 5 sets according to the discrimination measures including the following:

(a) Blatant hiring discrimination measured by recommendation for the position

(b) Blatant hiring discrimination measured by starting salary rating

(c) Subtle hiring discrimination measured by perceived career advancement, perceived social fit with co-workers, and perceived social fit with customers

(d) Subtle hiring discrimination measured by probation placement discrimination

(e) Subtle hiring discrimination measured by probationary period discrimination

H2.1: The evaluator's mindset has a direct effect on blatant hiring discrimination (H2.1a, H2.1b) and subtle hiring discrimination (H2.1c, H2.1d, H2.1e) such that evaluators with a competitive mindset have higher blatant and subtle hiring discrimination than those with a cooperative mindset, when controlling for prejudice.

H2.2: The competence stereotype has a direct effect on blatant hiring discrimination (H2.2a, H2.2b) and subtle hiring discrimination (H2.2c, H2.2d, H2.2e) such that highly-competent candidates from high competence stereotyped countries receive lower blatant and subtle hiring discrimination compared to highly-competent candidates from low competence stereotyped countries, when controlling for prejudice.

H2.3: The warmth stereotype has a direct effect on blatant hiring discrimination (H2.3a, H2.3b) and subtle hiring discrimination (H2.3c, H2.3d, H2.3e) such that highly-competent candidates from high warmth stereotyped countries receive lower blatant and subtle hiring discrimination compared to highly-competent candidates from low warmth stereotyped countries, when controlling for prejudice.

H2.4: There is an interaction between the competence and warmth stereotype regarding blatant hiring discrimination (H2.4a, H2.4b) and subtle hiring discrimination (H2.4c, H2.4d, H2.4e) such that the effect of the competence stereotype on blatant and subtle hiring discrimination is greater among the high warmth stereotyped countries compared to the low warmth stereotyped countries, when controlling for prejudice. On the other hand the effect of the warmth stereotype on blatant and subtle hiring discrimination is greater among high competence stereotyped countries compare to low competence stereotyped countries, when controlling for prejudice.

H2.5: There is an interaction between the competence stereotype and the evaluator's mindset regarding blatant hiring discrimination (H2.5a, H2.5b) and subtle hiring discrimination (H2.5c, H2.5d, H2.5e) such that the effect of the competence stereotype on blatant and subtle discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.

H2.6: There is an interaction between the warmth stereotype and the evaluator's mindset regarding blatant hiring discrimination (H2.6a, H2.6b) and subtle hiring discrimination (H2.6c, H2.6d, H2.6e) such that the effect of the warmth stereotype on blatant and subtle discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.

H2.7: Finally, there are interactions between the competence stereotype, the warmth stereotype, and the evaluator's mindset regarding blatant hiring discrimination (H2.7a, H2.7b) and subtle hiring discrimination (H2.7c, H2.7d, H2.7e) such that the effect of the competence stereotype on blatant and subtle discrimination is greater among the low warmth stereotyped group compared to high the warmth stereotyped group only among evaluators with competitive mindset, when controlling for prejudice. On the other hand, the effect of the competence stereotype on blatant and subtle discrimination is lower among the high warmth stereotype group compared to the low warmth stereotyped group only among evaluators with a cooperative mindset, when controlling for prejudice.

Hypothesis 3:

The effects of the competence and warmth stereotypes and the evaluators' mindset on blatant and subtle hiring discrimination can be partially explained by an increase in the participants' stringent evaluation standards for the candidates.

Model 4 illustrates the research framework for hypothesis 2 and 3 regarding (a) recommendation discrimination, (b) salary discrimination, and (c) subtle hiring discrimination measured by perceived career-related items, as shown in Figure 6.

Model 5 illustrates the research framework for hypothesis 2 and 3 regarding (d) probation placement discrimination, and (e) probation time discrimination, as shown in Figure 7.

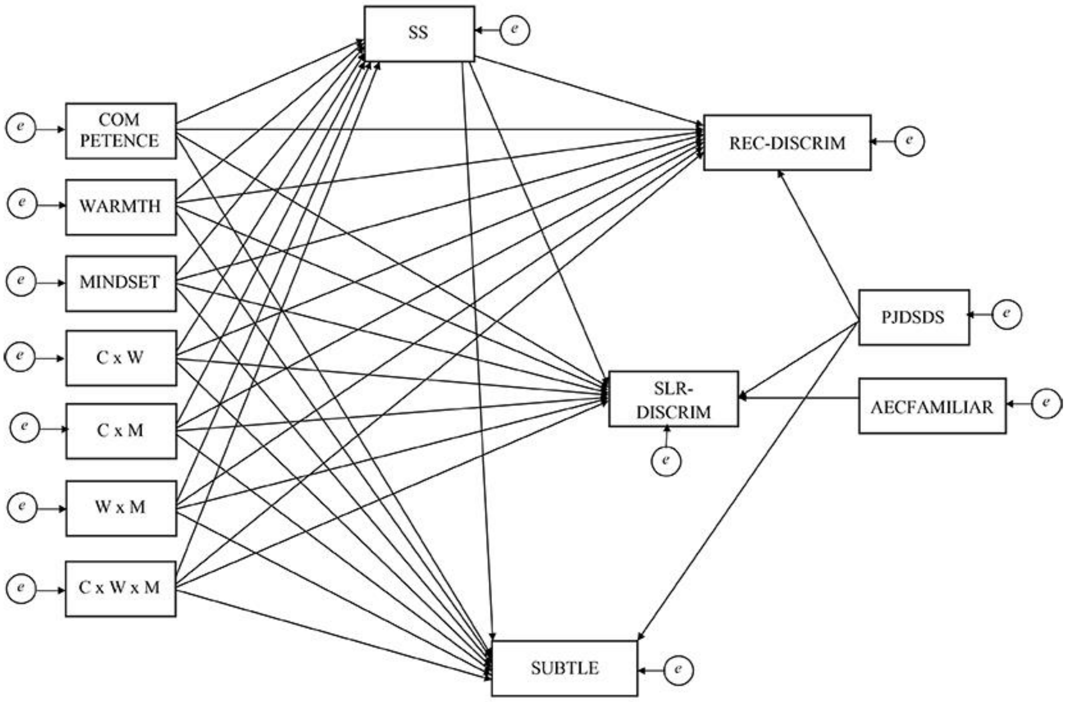

Figure 6. Conceptual model of Study 2 main model (Model 4).

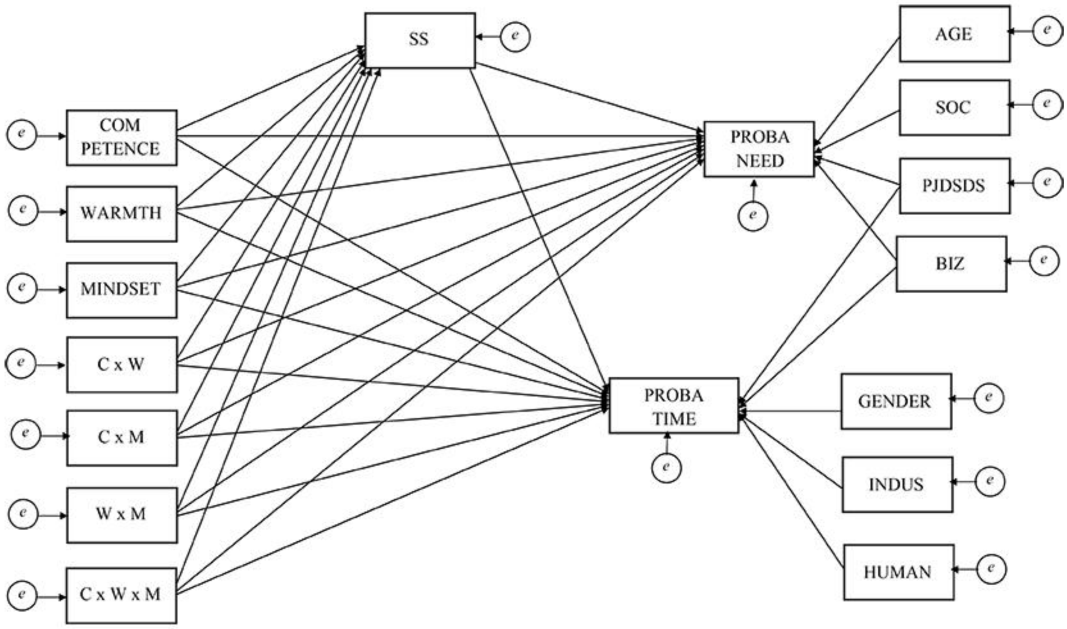

Figure 7. Conceptual model of Study 2 probation discrimination model (Model 5).

Alternative models when prejudice is a mediator

This research also proposed alternative models that reposition perceiver's level of prejudice as a mediator of the effects of warmth-by-competence stereotypes on recommendation discrimination, salary discrimination, and subtle hiring discriminating. The conceptual models are shown in Model 6 (see Figure 8) and Model 7 (see Figure 9). Model 6 is the full model that has all possible parameters and Model 7 is a parsimonious model that has the highest explanatory power.

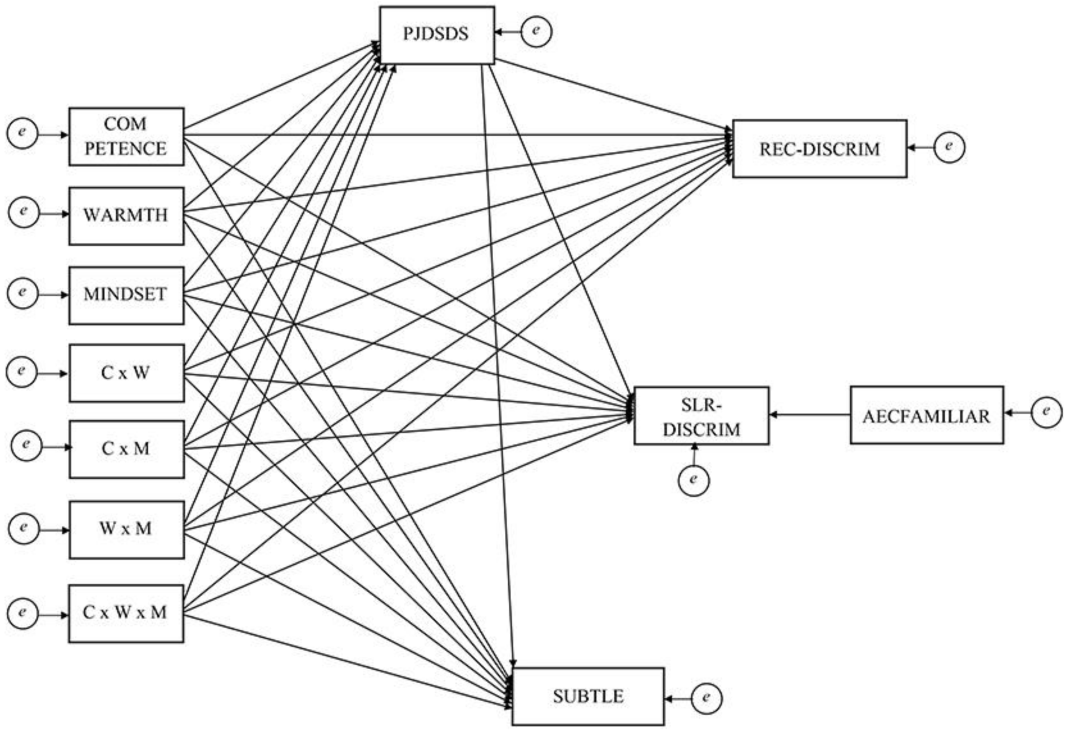

Figure 8. Conceptual model of Study 2 alternative model (Model 6).

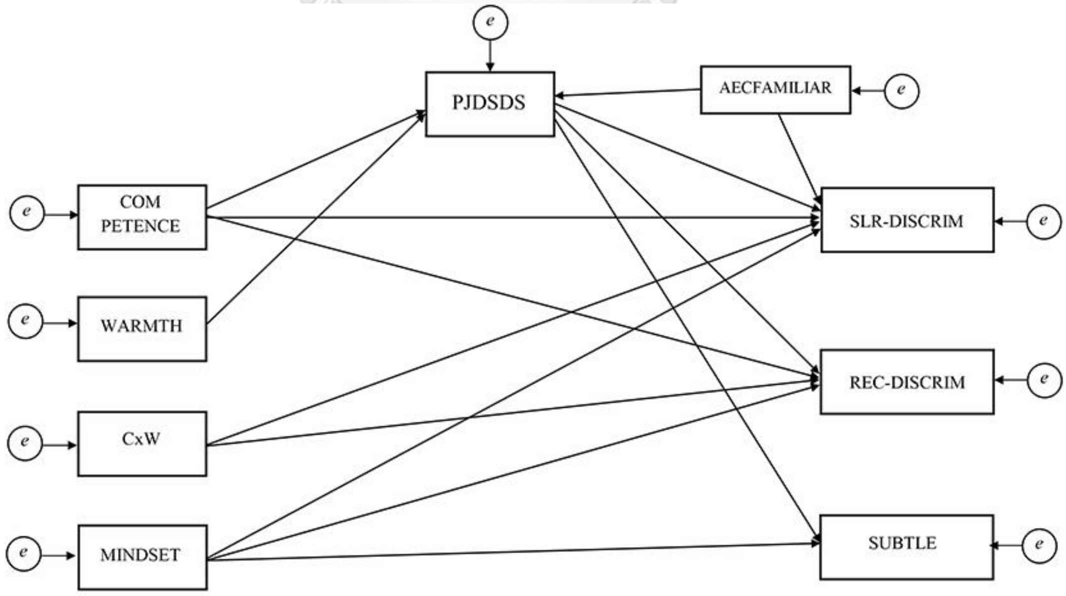

Figure 9. Conceptual model of Study 2 parsimonious model (Model 7).

Definitions

Hiring discrimination is defined as the process of resume screening when the practices, rules or policies of organizations result in different outcomes for members of different groups. In this study hiring discrimination includes two variables: blatant hiring discrimination and subtle hiring discrimination.

Blatant hiring discrimination refers to overt or direct hiring decisions that are made with a directed effort to negatively affect the target group and are not restricted by the actors' need to justify their action.

In Study 1 blatant hiring discrimination refers to the reversed score of the averaged hireability scale. The score ranges from 1-7 and, after the reversion, the higher score indicates higher blatant hiring discrimination.

In Study 2 blatant hiring discrimination refers to two scores; the reversed scores of the recommendation to position rating, and the reversed score of the starting salary rating. The recommendation to position rating has 1 item and the score ranges from 1-7 and, after the reversion, the higher score indicates higher blatant hiring discrimination. The starting salary rating also has 1 item. The salary figures were anchored to a 7-point scale and, after the reversion, the higher score indicates higher blatant hiring discrimination.

Subtle hiring discrimination is defined as hiring decisions that have repercussions for the target group but are indirectly expressed and are restricted by the actors' need to justify their actions.

In Study 1 subtle hiring discrimination refers to the reversed score of the 4-item scale comprises: confidence in hiring decisions, perceived career advancement potential, perceived social fit with co-workers, and perceived social fit with customers. The score ranges from 1-7 and, after the reversion, the higher score indicates higher subtle hiring discrimination.

In Study 2 subtle hiring discrimination refers to the reversed score of the 3-item scale comprises: perceived career advancement potential, perceived social fit with co-workers, and perceived social fit with co-workers customers. The score ranges from 1-7 and after the reversion, the higher score indicates higher subtle hiring discrimination.

In addition, Study 2 subtle hiring discrimination also refers to discrimination regarding probation placement decision and probation period decision. Probation placement discrimination refers to the score of the respondents rating of how likely they would place the candidate on probation on a 7-point scale. The higher score reflects higher discrimination. Probation time discrimination refers to the rating of the period of time that respondents feel that the candidate should be placed on probation on a 7-point scale. The higher score reflects higher discrimination.

Competence and warmth stereotypes are defined as the shared beliefs or perceptions about groups or their members according to the warmth and competence dimension according to the SCM.

In study 1, the competent and warmth stereotypes were manipulated by asking the participants to read attributes that were diagnostic of the competence and warmth dimensions of four fictitious groups.

In Study 2, 4 AEC countries were used to manipulate the competence and warmth stereotypes; Singapore for the high competence-high warmth stereotype, Myanmar for the low competence-low warmth stereotype, Laos for the low competence-high warmth stereotype, and Malaysia for the high competence-low warmth stereotype.

Prejudice is defined as a negative evaluation toward a target in a situation when those negative evaluations are based on the target group membership.

In Study 1 prejudice refers to the reversed score of the feeling thermometer. The score ranges from 0-100. After the reversion, the higher score reflects higher prejudice level.

In Study 2 prejudice refers to the reversed score of the 4-items social distance scale. The score ranges from 1-7. After the reversion, the higher score reflects higher prejudice level.

A cooperative mindset is defined as the perception that groups (the perceiver's group and the target's group) cooperate to achieve the same goal while **a competitive mindset** is the perception that groups compete when there are conflicting goals between groups.

In this study, the cooperative mindset refers to respondents who read the AEC article that focus on cooperation between AEC member countries, and the competitive mindset refers to respondents who read the AEC article that focus on competition between AEC member countries.

The stringent evaluation standard is defined as an increase in the amount of evidence perceived to be necessary to confirm that an individual processes an attribute when evaluating a target from groups that are stereotyped as lack in the attribute being assessed.

In this study the stringent evaluation standard refers to the number of items that participants selected from the list of 8 items that they could request from the candidate. The higher score reflects a more stringent evaluation standard.

Key Research Contributions

The key contributions of this research are in four main areas. First, this study is the first to propose a specific model that accounts for the hiring discrimination of highly-competent candidates from different countries by integrating the continuum model of impression formation, the SCM, and the shifting standard model.

Second, this study contributes to theoretical knowledge in the area of stereotype study and hiring discrimination, and offers a theoretical extension to the SCM by investigating the effects of the warmth-by-competence stereotypes on hiring discrimination in an experimental manner and by varying the manipulation tool and prejudice measure in order to test the generalization of the model.

Third, this research is the first to demonstrate the hiring decision bias that is expressed in both blatant and subtle forms in Thailand where hiring discrimination legislation is absent.

Lastly, this study offers practical implications by experimentally investigating the effect of cooperative and competitive mindsets regarding the AEC on the evaluator’s decisions. This information is important for organizations that are going to deal with hiring decisions in the near future due to the implementation of the AEC..

Chapter 2

Methods

This study used a laboratory experimental design. There were two experiments. The first study aimed to explore the differences in Thai participants' blatant and subtle hiring discrimination against highly-competent candidates from four hypothetical countries with different stereotype content. The first experiment used a 2 (competence stereotype: high vs. low) x 2 (warmth stereotype: high vs. low) between subject design.

The second study aimed to test the effect of cooperative/competitive mindsets and the mediating effect of the stringent evaluation standard. It also aimed to test the generalization of the research results by using actual AEC member countries in order to represent the competence and warmth stereotype and a different measurement tool to measure hiring discrimination. The second experiment used a 2 (competence stereotype: high vs. low) x 2 (warmth stereotype: high vs. low) x 2 (mindset: cooperative vs. competitive) between subject design.

Study 1 Methods

Population

The target population of this study was university students in Thailand that were studying in the areas of human resources, business, management, accounting, finance-related, social sciences, arts, or humanities and that were of the Thai nationality and were 18 years or older.

Research samples

Study 1 samples included 220 university students from four universities in Thailand (Srinakharinwirot University, the National Institute of Development Administration, Rajamangala University of Technology Krungthep, and Prince of Songkla University). Their age ranged from 20 to 30 years and they were studying business management, finance, and economics, psychology, arts, and humanities.

All of the participants were Thai adults, age higher than 18 and did not have a close family member that was from Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, or Vietnam. None of the participants had been living in Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, or Vietnam for more than 6 months at any time in their lives.

<u>Sample size</u>

Study 1 sample size was 220 participants, which was calculated by the recommended sample size of 15 samples to one free parameter (Bentler & Chou, 1987). Study 1 path analysis model had 14 parameters resulting in a total sample of 210 cases. The 10 samples were added for contingency reasons resulting in a total sample size of 220 (55 samples per group).

<u>Sampling technique</u>

This study used purposive samples to select the classes for data collection and used a random assignment method to assign participants to the manipulation group. Researcher asked permission to collect data from lecturers or class representatives based on personal contact. The randomization was done when the participants agreed to participate in the study. Each participant was randomly assigned to 1 of the 4 research conditions.

Participants for Study 1 research tools development

The research tools development samples included 60 university students; 77% were female and 23% were male. They were all undergraduate students from Chulalongkorn University. Their age ranged from 20 to 23 years (*M* = 21.0, *SD* = .87) and studied psychology (88%), communication arts (7%), arts (2%), economics (2%), and political sciences (2%).

Development of research tools for Study 1

Study 1 research tools include:

1) Competence and warmth stereotype manipulation

2) Blatant hiring discrimination measurement

3) Subtle hiring discrimination measurement

4) Prejudice level measurement

5) A managerial job position advertisement

6) Candidate resumes

1. Competence and warmth stereotype manipulation

The competence and warmth stereotypes were manipulated by asking the participants to read a description of a hypothetical country varying in its competence and warmth valences.

Vignettes

In the 2 × 2 between-subjects design, the participants were presented with a description of a hypothetical country that comprised statements that were diagnostic of the competence stereotype (high or low), and statements that were diagnostic of warmth stereotype (high or low) adopted from Caprariello, Cuddy, and Fiske (2009) study.

Participants read:

ประเทศนี้ ประชาชนส่วนใหญ่มักทำงานที่ได้ค่าตอบแทนสูง มีระดับการศึกษาสูง และประสบความสำเร็จด้านการเงิน [ทำงานระดับแรงงาน มีระดับการศึกษาไม่สูงนัก และมักมีปัญหาด้านการเงิน] แต่ประเทศนี้มักพยายามแข่งขันและแย่งชิงเอาทรัพยากรจาก [ไม่ชอบแข่งขันกับเพื่อนบ้านและมักแบ่งปันทรัพยากรให้กับ] ประเทศเพื่อนบ้านอยู่เสมอ ทำให้คนจากประเทศนี้มักถูกบรรยายว่า ฉลาด มีประสิทธิภาพ [ไม่ฉลาด ประสิทธิภาพน้อย] ชอบการแข่งขัน และเห็นแก่ตัว [รักสงบ และใจกว้าง]

Variant indicated in bracketed text.

Manipulation checks

The participants then rated their perception about citizens from the country on the competence and warmth scales. The competence scale comprised competence and capability (α = .90) and the warmth scale comprised being friendly and warm (α = .91), using 7-point scales (1 = extremely unlikely to 7 = extremely likely) (Cuddy et al., 2007; Fiske et al., 2002).

An ANOVA of 2 (Competence: high, low) × 2 (Warmth: high, low) was used to test the manipulation results and they showed that the manipulation was successful.

There was a main effect of competence manipulation on the competence scale, such that high competence stereotyped countries were rated as more competent (*M* = 5.78, *SD* = .77) than low competence stereotyped countries (*M* = 3.57 *SD* = 1.03), $F(1, 56) = 87.14$, $p < .001$, $\eta_p^2 = .61$. There was no main effect of competence manipulation on the warmth scale, $F(1, 56) = 3.87$, $p = .05$, $\eta_p^2 = .06$, and no interaction between the competence and warmth manipulation on the competence scale, $F(1, 56) = 1.20$, $p = .28$, $\eta_p^2 = .02$.

There was a main effect of warmth on the warmth scale, such that high warmth stereotyped countries were rated as more warm (*M* = 5.78 *SD* = .80) than low warmth stereotyped countries (*M* = 3.10 *SD* = 1.01), $F(1, 56) = 137.25$, $p < .001$, $\eta_p^2 = .71$. There was no main effect of warmth manipulation on the competence scale, $F(1, 56) = .60$, $p = .44$, $\eta_p^2 = .01$, and no interaction between competence and warmth manipulation on the warmth scale, $F(1, 56) = .40$, $p = .53$, $\eta_p^2 = .01$. Materials and a detailed analysis are presented in Appendix A.

2. Blatant hiring discrimination measurement

Blatant hiring discrimination was measured using the hireability scale with three items which was adapted from Phelan, Moss-Racusin, and Rudman (2008). The respondents indicated how likely it was that they “would choose to interview the applicant for the job,” that “the applicant would be hired for the job,” and that “you would hire the applicant for the job” on a 7-point scale. The score from the three items were converted and all of the item scores were averaged so that the higher score indicated higher discrimination. According to the pretest of the 60 respondents, the scale had high internal reliability (α = .92).

3. Subtle hiring discrimination measurement

Subtle discrimination scale was created based on four job-related items: confidence in hiring decisions (Stewart & Perlow, 2001), career advancements potential (James, 2000; Landau, 1995; Park, Malachi, Sternin, & Tevet, 2009), perceived social fit with co-workers, and perceived social fit with customers (Kirschenman & Neckerman, 1990). The respondents were asked to indicate their decision for each item on 7-point scales. The score from the four items were converted and all item scores were averaged so that the higher score indicated higher discrimination. According to the pretest of the 60 respondents, the scale had high internal reliability (α = .81).

4. Prejudice level measurement

Prejudice was measured by the feeling thermometer (Dasgupta & Greenwald, 2001). The respondents were asked to indicate their attitudes on a 0-100-point scale ranging from "very cold, unfavourable feeling" to "very warm, favourable feeling." The score was reversed so that the higher score indicated higher prejudice.

5. Managerial job position advertisement

ASEAN has established mutual recognition arrangements (MRAs) regarding eight professional services in order to encourage the free flow of skilled labour (Fukunaga, 2015; The ASEAN Secretariat, 2008). These professions are engineering services, nursing services, architectural services, surveying, accountancy services, medical practitioners, dental practitioners, and tourism professionals (Fukunaga, 2015; Vietnam National Administration of Tourism, 2013). Fukunaga (2015) noted that tourism professionals differ from the other professions because tourism employments are not dependent on the legal or education systems of each member country compared to the regulated professions, and thus the MRA will be beneficial. For this reason, the tourism profession was selected for this study. The food and beverage manager's position was selected and the job description was created based on Saengpayap (2006) description of food and beverage manager's job responsibilities and a bogus hotel name was used. Typical qualifications were created based on online food and beverage manager's job posts (JobsDB, n.d.).

6. Candidate resume

Four resumes were created with strong candidate qualifications. All of the resumes were matched to key attributes, including candidate gender (male), age range (28-31 years), educational level (bachelors' degree in hotel- or tourism-related filed), marital status (single), and work experience (7-8 years). Two recruitment professionals reviewed all 4 resumes for face validity.

The resumes were pre-tested with 60 participants for the 3 items' hireability scale (α = .92). Bonferroni's post hoc comparison showed that there was no difference between resume number 1 (*M* = 4.73, *SD* = .71, *n* = 15), 2 (*M* = 4.91, *SD* = .71, *n* = 15), and 4 (*M* = 4.29, *SD* = 1.01, *n* = 15). However, resume number 2 was rated significantly higher than resume 3 (*M* = 3.98, *SD* = .61, *n* = 15). Thus the resume with the highest hireability rating (resume no.2) was selected. Materials and a detailed analysis are presented in Appendix B.

Study 1 data collection

The researcher asked for permission to collect the data from classes (as specified in the research sample section), and the research materials were printed out and randomly sequenced prior to the session. The research materials were given to volunteer participants one by one. The final Study 1 research material is presented in Appendix E.

First, the participants read the material introduction, stating that this study aimed to understand how people process information about overseas candidates, and that they were going to learn about one out of four countries by reading a description about that country. After that the participants were to rate the citizen of that country on a competence and warmth scale for a manipulation check before proceeding to the next section.

The participants then read the food and beverage manager’s job description and a candidate resume from the country that they had just learned about.

After reviewing the job position and resume, the participants then completed the blatant hiring discrimination, the subtle hiring discrimination, the feeling thermometer, and supplied their demographic information.

Finally, the researchers collected the materials and participants were debriefed and thanked.

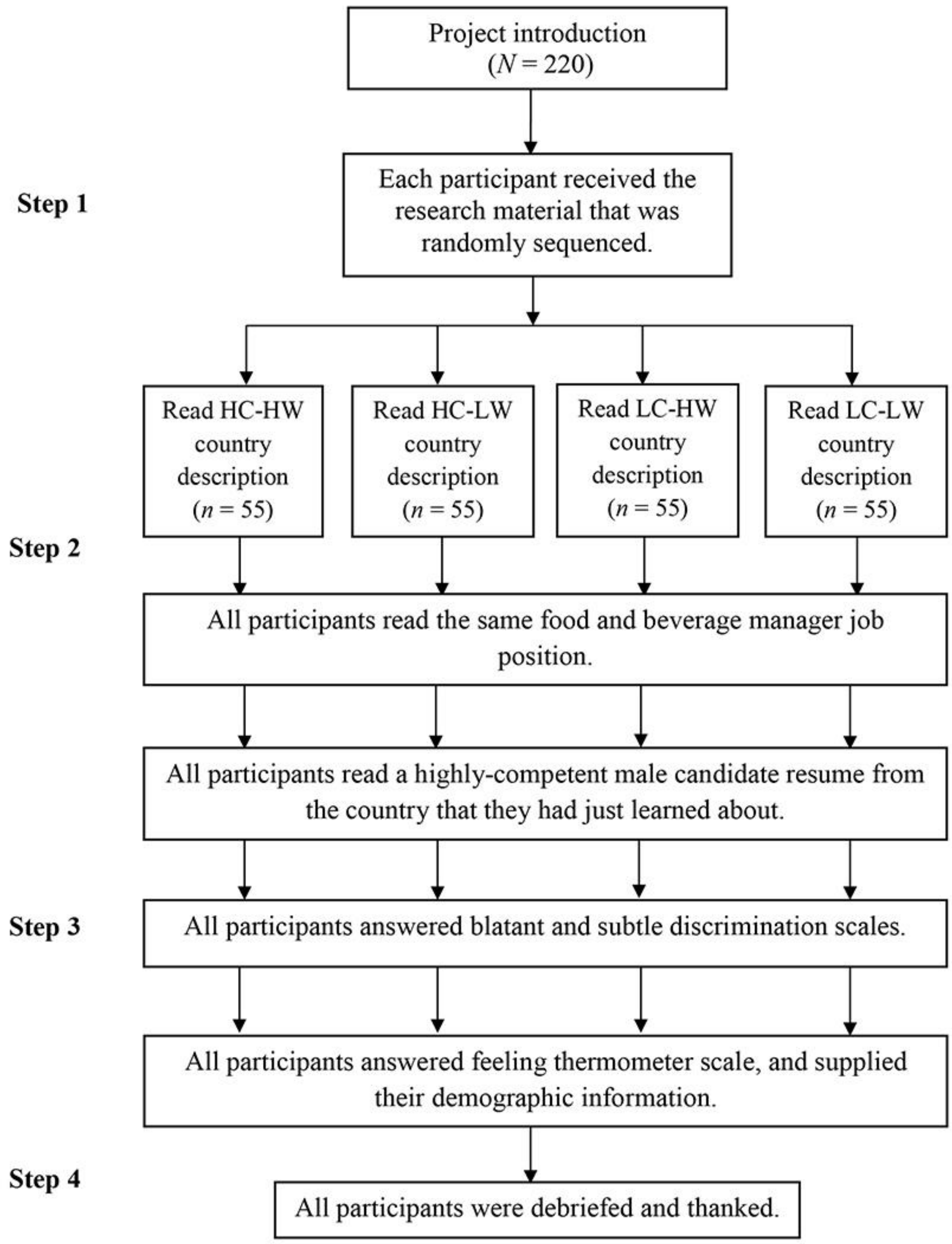

Figure 10. Diagram of data collection process for Study 1.

Study 1 data analysis

The analysis was performed using SPSS, PROCESS (Hayes, 2013), and LISREL (Jöreskog & Sörbom, 2012) programs. The data analysis included:

1. Data screening for missing data, unengaged responses, and outliers
2. Variable screening concerning whether the data met the assumptions for the path analysis
3. Hypothesis testing using path analysis (LISREL)
4. Conditioning effect analysis using PROCESS

Study 2 Methods

Population

The target population of this study was university students in Thailand that were studying in the areas of human resources, business, management, accounting, finance-related, social sciences, arts, or humanities and that were Thai and 18 years or older.

Research samples

Study 2 samples included 512 undergraduate and graduate students from four universities in Thailand (Kasetsart University, King Mongkut's University of Technology North Bangkok, Srinakharinwirot University, and the University of the Thai Chamber of Commerce). Their age ranged from 19 to 50 years. They were from the business, finance, economics, social science, humanities, applied science, and industrial technology and management faculties.

All participants were Thai adults, age higher than 18 and did not have close family members that were from Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, or Vietnam. None of the participants had been living in Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, or Vietnam for more than 6 months at any time in their lives.

Sample size

Study 2's sample size was 512 participants. The sample size was calculated in order to accommodate Study 2 models, which had 48 parameters, i.e. 10 cases per parameter plus 32 contingency cases (Bentler & Chou, 1987)— see Figure 8 and Figure 9.

Sampling technique

This study used purposive samples to select the classes for data collection and used random assignment method to assign participants to the manipulation group. Researcher asked permission to collect data from lecturers or class representatives based on personal contact. The randomization was done when the participants agreed to participate in the study. Each participant was randomly assigned to 1 of the 8 research conditions.

Participants for Study 2 research tools development

There were 2 sets of pretests for Study 2. The AEC articles that were used to manipulate the evaluator's mindset were tested with samples of 98 university students, 75% female and 25% male. They were all undergraduate students from Chulalongkorn University. Their age ranged from 20 to 23 years (M = 21.00, SD =

.87) and they studied psychology (85%), communication Arts (7%), arts (6%), economics (1%), and political sciences (1%).

The competence and warmth stereotype manipulation, the dependent variables, and the mediator variable were tested with samples of 86 university students from four universities (King Mongkut's University of Technology North Bangkok, Srinakharinwirot University, Assumption University, and the National Institute of Development Administration); 50% were female and 50% were male students. Ninety-two point two percent of them were undergraduate students and the rest were master's degree students. Their age ranged from 18 to 27 years (M = 21.19, SD = 1.75). They were studying industrial management (53%), psychology (17%), business management (14%), human resource management (8%), humanities (3%), social sciences (2%), and applied science (1%).

Development of research tools for Study 2

Study 1 research tools include:

1) The evaluator's mindset toward the AEC manipulation tool (news articles)
2) Competence and warmth stereotype manipulation
3) Blatant hiring discrimination measurement
4) Subtle hiring discrimination measurement
5) Stringent evaluation standard measurement
6) Prejudice level measurement
7) A managerial job position advertisement
8) Candidate resumes

1. Evaluator's mindset toward the AEC manipulation tool (news articles)

The evaluator's cooperative/competitive mindset was manipulated by asking the participants to read an article about the AEC that varied some part of the content to focus on competition (competitive mindset condition) or cooperation among AEC countries (cooperative mindset condition).

Development of the manipulation articles

Two articles of a similar length concerning AEC implementation were created. Most of the articles' content was the same, varying only the parts intended for cooperative/competitive mindset manipulation. The article for the cooperative mindset manipulation had a part of its content focus on the benefit of having a single AEC unit to compete in the global market. The article for the competitive mindset manipulation had a part of its content focus on the opinions and surveys that illustrated concern about labour from neighbouring countries competing for job positions in Thailand.

Participants read:

AEC และการร่วมมือกันในตลาดอาเซียน

[AEC และการแข่งขันในตลาดแรงงานอาเซียน]

ประชาคมเศรษฐกิจอาเซียนหรือ ASEAN Economics Community (AEC) คือการรวมตัวของ10 ประเทศ คือ ไทย, พม่า, ลาว, เวียดนาม, มาเลเซีย, สิงคโปร์, อินโดนีเซีย, ฟิลิปปินส์, กัมพูชา, บรูไน เพื่อที่จะให้มีผลประโยชน์ทางเศรษฐกิจร่วมกัน โดยการรวมตัวเป็นประชาคมเศรษฐกิจอาเซียนได้มีผลเป็นรูปธรรม ในวันที่ 31 ธันวาคม 2558 ที่ผ่านมา

ผลกระทบของ AEC ต่อประเทศไทย โอกาสของคนไทย

[ผลกระทบของ AEC ต่อประเทศไทย ความเสี่ยงของคนไทย]

การเปิดประชาคมเศรษฐกิจอาเซียนถูกมองว่าเป็นโอกาส [ความเสี่ยง] ต่อประชาชนชาวไทย การรวมตัวกันครั้งนี้จะทำให้เกิดเคลื่อนย้ายอย่างเสรีของแรงงานระดับวิชาชีพ ความยุ่งยากในการทำเอกสารขออนุญาตทำงานสำหรับชาวต่างชาติ (Work Permits) จะลดลง การจ้างแรงงานที่มีความสามารถสูงจากต่างประเทศจะทำได้ง่ายขึ้น

การเปิดตลาดเสรีจะเพิ่มจำนวนแรงงานระดับสูงในตลาดแรงงาน และทำให้แรงงานสมัครเข้าทำงานในประเทศสมาชิกฯ ได้อย่างอิสระ ทำให้เกิดความเป็นฐานการผลิตรวมขนาดใหญ่จากจำนวนประชากรในภูมิภาคนี้ที่รวมกันถึง 580 ล้านคน ส่งผลให้ประเทศในอาเซียนมีอำนาจต่อรองกับนานาชาติมากขึ้น นำไปสู่การยกระดับการพัฒนาทางเศรษฐกิจและสังคมของประเทศสมาชิกฯในที่สุด

[การเปิดตลาดเสรีจะเพิ่มจำนวนแรงงานระดับสูงในตลาดแรงงาน และเพิ่มอัตราการแข่งขันกับแรงงานในประเทศไทยด้วย เพราะจากจำนวนประชากรในภูมิภาคนี้ที่รวมกันถึง 580 ล้านคน จะมีคนทำงานที่มีความรู้ความสามารถสูง และเก่งภาษา เข้ามาสมัครงานในประเทศไทยเพิ่มมากขึ้น ทำให้แรงงานไทยต้องพัฒนาฝีมือเพื่อรองรับการแข่งขันนี้]

Variant indicated in bracketed text.

Manipulation check

For the manipulation check, the participants rated whether the article contents contained significant differences in their focus on cooperation or competition, and the level of threat that the readers felt after reading each article. Candidates that have a competitive mindset are hypothesized to assign a higher level of threat to the candidate's countries compared to participants that have a cooperative mindset because the level of competition positively correlates with the level of threat from the target group (Stephan & Mealy, 2011; Stephan & Stephan, 1996; Stephan et al., 1998; Zárate et al., 2004).

One-way ANOVA analysis was used for the manipulation check. The results showed that the manipulation of the mindset was successful. The competition condition article (M = 5.24, SD = 1.49) was perceived to have a competition focus more than a cooperation focus (M = 3.27, SD = 1.58; $F(1, 95) = 39.98$, $p < .001$, η_p^2 = .30. The respondents reading the competition condition article (M = 4.53, SD = 1.54) also reported a higher level of threat than the cooperative condition (M = 3.90, SD = 1.43; $F(1, 95) = 4.41$, $p < .05$, $\eta_p^2 = .04$). The materials and a detailed analysis are presented in Appendix C.

2. Competence and warmth stereotype manipulation

The competence and warmth stereotypes were manipulated using nationality of the candidate as representing four AEC countries, one from each stereotype content quadrant. The countries were selected based on Boonyasiriwat and Puttaravuttiporn (2015) study; Singapore for the high competence-high warmth stereotype, Myanmar for the low competence-low warmth stereotype, Laos for the low competence-high warmth stereotype, and Malaysia for the high competence-low warmth stereotype.

The same resumes as used in experiment 1 were used with the only difference that the candidates' nationalities were clearly specified.

After that, the researcher selected the Laos condition to check whether the participants would correctly recall the candidate's nationality or not. The country recall was checked in the pretest but not in the final material in order to disguise the purpose of the study. An ANOAVA analysis was used to check that participants that were asked to recall the country did not give significantly different responses to those that were not asked to recall the candidate's country.

The pretest participants read the food and beverage manager's job position and then read a resume from a Laos candidate. Half of the candidates were asked to recall the candidate's nationality (recall condition) before proceeding to the next section, and the other half proceeded directly to the next section (no recall condition). They then rated the stringent evaluation standard measurement, the blatant discrimination scale, the subtle hiring discrimination scale, and the social distance scale.

All of the participants in the recall condition were able to correctly recall that the candidate was from Laos. The analysis also showed that the dependent variables between the recall and non-recall group were not significantly different. In sum, the manipulation was successful. The detailed analysis is presented in Appendix D. Thus, in Study 2, the recall of the country was not used as a manipulation check in order to disguise the purpose of the study. Instead, Study 2 participants were asked how they perceived the citizen from the manipulated country on the competence and warmth scale (see Study 2 final research materials in Appendix F).

3. Blatant hiring discrimination measure

Blatant hiring discrimination was measured using the hireability index with two items adapted from Terpstra and Larsen (1980). The respondents were asked to indicate their recommendations as to the hireability of each applicant on a 7-point scale. They were also asked to state suitable starting salary figures for the candidate, assuming that the applicant was hired for the job in question. The salary figures were anchored to a 7-point scale with 1 indicating the lowest possible starting salary and 7 the highest possible starting salary.

However, from the pretest samples the blatant scale was seen to have low internal reliability (α = .48). Thus the two items were analysed separately. The scores from both items were converted so that the higher score indicated higher discrimination. The reversed hireability score was named recommendation discrimination (SEC-DISCRIM) and the reversed salary item was named salary discrimination (SLR-DISCRIM).

4. Subtle hiring discrimination measure

Subtle discrimination was measured based on the job-related measurements: career advancement potential (James, 2000; Landau, 1995; Park et al., 2009) and perceived social fit with co-workers and customers (Kirschenman & Neckerman, 1990). The respondents were asked to indicate their decision for each item on a 7-point scale.

The score from the three items were converted and all item scores were averaged so that the higher score indicated higher discrimination. The subtle hiring discrimination scale had high internal consistency (α = .75).

This research also proposed to measure the probation-related decisions in order to explore additional business practices that may reflect subtle discrimination in the organization. This measurement is an extension of Stewart’s (2001) finding—that employers may express subtle discrimination in their lack of confidence in their decision. Thus, when an employer feels uncertain about his or her hiring decision, he/she may express that uncertainty by putting the candidate in a longer probation in order to compensate for his/her uncertainty.

For the probation placement item, the respondents indicated how likely it was that they “would place the candidate on probation” on a 7-point scale. The score was not reversed. The higher score reflected higher discrimination.

For the probation time item, the respondents indicated the period of time that they felt that the candidate should be placed on probation (periods were between 3-9 months anchored on a 7-point scale). The score was not reversed. The higher score reflected higher discrimination.

5. Measurement of stringent evaluation standard

This study measured the stringent evaluation standard based on Biernat, Fuegen, and Kobrynowicz’s (2010) method. Respondents were asked to select from a list of documents or actions that could be requested from the candidate to convince the respondent that the candidate was competent. The list of documents/action requirements was created from Study 1 pretest samples (N = 60). The top 8 items with the highest frequency were used. The eight-item stringent evaluation standard measure was then tested with the second pretest samples (N = 86). When considering candidates from Laos, the pretest participants chose on an average of 4 item (M = 4.0, SD = 2.19), and the data were normally distributed (Skewness = -.37, SE = .26, Kurtosis = -.41, SE = .51).

6. Prejudice measure

In Study 2 prejudice was measured using a social distance measurement adapted from Brewer (1968). The participants were presented with statements, describing the forms of contact with the target group that increased in social intimacy. The participants were asked to indicate their willingness to tolerate each form of contact on a 7-point scale. The scores from the four items were reversed and all item scores were averaged so that the higher score indicated higher discrimination. According to the pretest, the four-item social distance measurement had high internal reliability ($\alpha = .88$).

Study 2 data collection

The researcher asked permission to collect data from classes (as specified in the research sample section). Research materials were printed out and randomly sequenced prior to the session, and they were given to the volunteer participants one by one and each participant took his or her time to complete the material. The final Study 2 research material is presented in Appendix F.

First, the participants read the material introduction, which indicated that this study aimed to understand how people process information about overseas candidates. The respondents then read either a cooperative focus AEC article (cooperative mindset condition) or a competitive focus AEC article (competitive mindset condition). They then rated the manipulation check items before proceeding to the next section.

The respondents then read the food and beverage manager's job position and read a resume that included one of four conditions: the Singapore candidate (HC-HW condition), the Malaysian candidate (HC-LW condition), the Laos candidate (LC-HW condition), or the Myanmar candidate (LC-LW condition). They were asked to read the job description and the candidate's resume carefully before proceeding to the next step.

After that the participants rated the stringent evaluation standard scale, the blatant hiring discrimination scale, and the subtle hiring discrimination scale, and the probation items. All of the respondents then rated how they felt toward the citizen from the candidate's country on the competence and warmth scales for the manipulation check, completed the social distance scale, and gave their demographic information. Finally, the researcher collected the materials and the participants were debriefed and thanked.

Study 2 data analysis

The analyses were performed using SPSS, PROCESS, and LISREL programs. The data analysis included the following:

1. Data screening for missing data, unengaged responses, and outliers
2. Variable screening concerning whether the data met the assumptions for the path analysis
3. Hypothesis testing using path analysis (LISREL)
4. Conditioning effect analysis using PROCESS

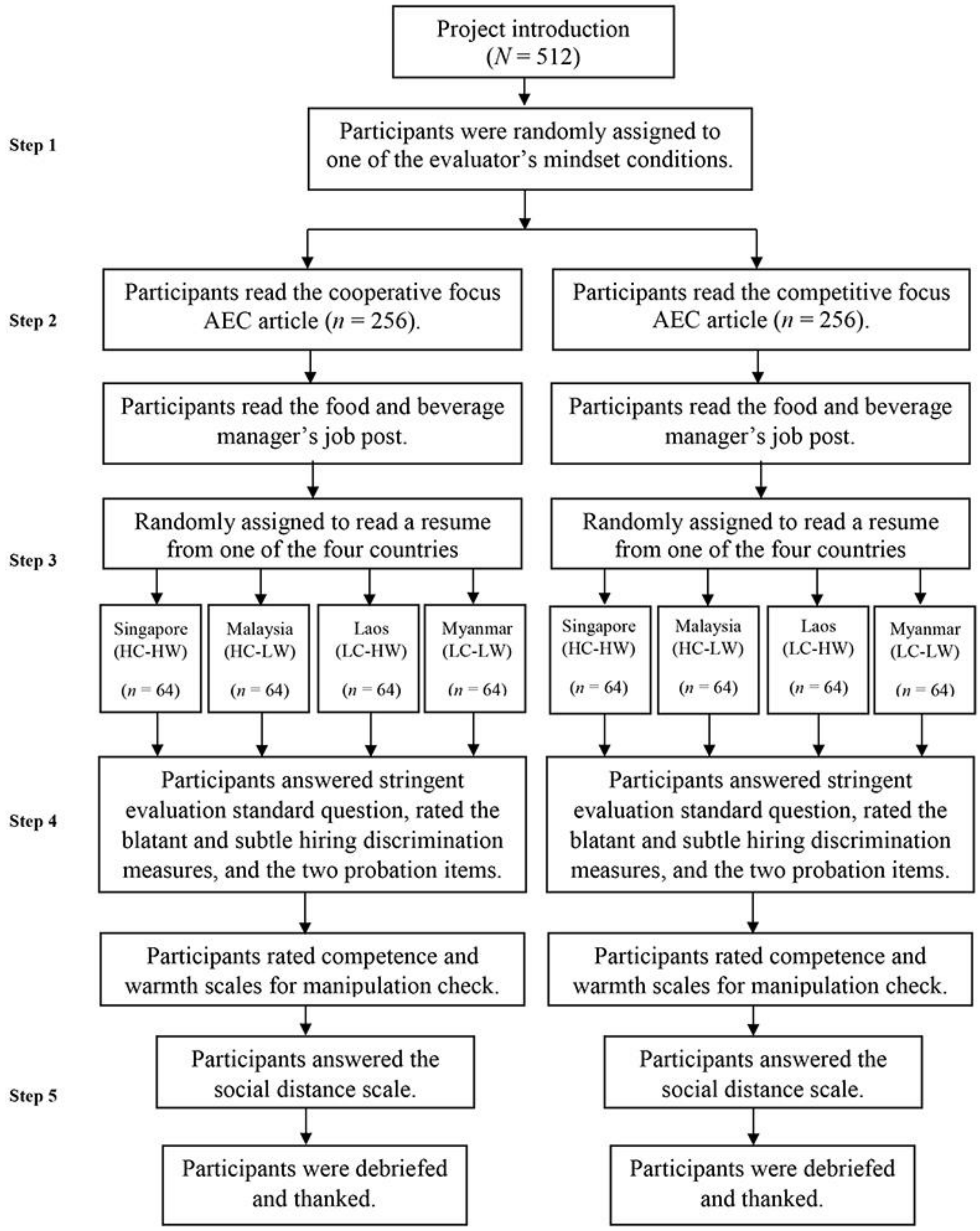

Figure 11. Diagram of data collection process for Study 2.

Chapter 3

Results

The results are presented in 2 sections. Section 1 presents the results from Study 1 and section 2 presents the results from Study 2.

Section 1: Study 1 results

Section 1 comprises 6 parts. Part 1 presents descriptive statistics of Study 1. Part 2 presents data manipulations and data distributions of Study 1 variables. Part 3 presents the results from manipulation checks. Part 4 presents descriptive statistics of Study 1 variables. Part 5 presents the path analysis results from Study 1 main model (Model 1). Finally, Part 6 presents the results from alternative models that reposition prejudice as a mediator (Model 2 and Model 3) and the results from the PROCESS simple slope tests.

Section 2: Study 2 results

Section 2 comprises 7 parts. Part 1 presents descriptive statistics of Study 2. Part 2 presents data manipulations and data distributions of Study 2 variables. Part 3 presents the results from manipulation checks. Part 4 presents descriptive statistics of Study 2 variables. Part 5 presents the path analysis results from Study 2 main model (Model 4) and Part 6 presents the path analysis results from Study 2 probation discrimination model (Model 5). Finally, Part 7 presents the results from alternative models that reposition prejudice as a mediator (Model 6 and Model 7) and the results from the PROCESS simple slope tests.

Variable abbreviations for Study 1

Abbreviation	Description	Characteristic
COMPETENCE	Competence stereotype	Manipulated variable, 2 categories using indicator coding, 0 = High, 1 = Low
WARMTH	Warmth stereotype	Manipulated variable, 2 categories using indicator coding, 0 = High, 1 = Low
CxW	Interaction between COMPETENCE and WARMTH	Interaction terms of COMPETENCE and WARMTH variables
BLATANT	Blatant hiring discrimination	An average of 3 items, high score indicates high blatant hiring discrimination, scale from 1-7
SUBTLE	Subtle hiring discrimination	An average of 4 items, high score indicates high subtle hiring discrimination, scale from 1-7
PJDFT	Prejudice measured by the feeling thermometer	One item, high score indicates high prejudice, scale from 0-100

Variables abbreviations for Study 2

Abbreviation	Description	Characteristic
COMPETENCE	Competence stereotype	Manipulated variable, 2 categories using indicator coding, 0 = High, 1 = Low
WARMTH	Warmth stereotype	Manipulated variable, 2 categories using indicator coding, 0 = High, 1 = Low
MINDSET	Cooperative/ Competitive mindsets	Manipulated variable, 2 categories using indicator coding, 0 = Cooperative, 1 = Competitive

(continued)

Abbreviation	Description	Characteristic
CxW	Interaction between COMPETENCE and WARMTH	Interaction terms of COMPETENCE and WARMTH
CxM	Interaction between COMPETENCE and MINDSET	Interaction terms of COMPETENCE and MINSDET
WxM	Interaction between WARMTH and MINDSET	Interaction terms of WARMTH and MINSDET
CxWxM	Interaction between COMPETENCE, WARMTH, and MINDSET	Interaction terms of COMPETENCE, WARMTH, and MINDSET
REC-DISCRIM	Hiring discrimination measured by decision to recommend	One item, high score indicates high discrimination (low recommendation), scale from 1-7
SLR-DISCRIM	Hiring discrimination measured by salary decision	One item, high score indicates high discrimination (low salary), scale from 1-7
SUBTLE	Subtle hiring discrimination	An average of 3 items, high score indicates high subtle hiring discrimination, scale from 1-7
PJDSD	Prejudice measured by social distance scale	An average of 4 items, high score indicates high prejudice, scale from 1-7

(continued)

Abbreviation	Description	Characteristic
PROBANEED	Hiring discrimination measured by probation placement decision	One item, high score indicates high discrimination (high likelihood to recommend probation placement), scale from 1-7
PROBATIME	Hiring discrimination measured by probationary period	One item, high score indicates high discrimination (longer probationary period), scale from 1-7
SS	Stringent evaluation standard	Number of items respondent required to convince that the candidate was competent, scale from 0-8
AECFAMILIAR	Know someone from AEC countries besides Thailand	Indicator coding, 0 = No, 1 = Yes
GENDER	Respondents' gender	Indicator coding, 0 = Male, 1 = Female
AGE	Respondents' age	Ratio scale
BIZ	Study in business, finance, economics faculties	Indicator coding, 0 = No, 1 = Yes
SOC	Study in social science faculties	Indicator coding, 0 = No, 1 = Yes
INDUS	Study in industrial and technology management faculties	Indicator coding, 0 = No, 1 = Yes
HUMAN	Study in humanities faculties	Indicator coding, 0 = No, 1 = Yes

Statistical abbreviations:

AGFI	for	Adjusted goodness of fit index
b	for	Unstandardized multiple regression coefficient
CFI	for	Comparative fit index
d	for	Cohen's measure of effect size
DE	for	Direct effect
df	for	Degree of freedom
F	for	F-ratio value
GFI	for	Goodness of fit index
IE	for	Indirect effect
LLCI	for	Lower limit of confidence interval
M	for	Mean score
MS	for	Mean squares
n	for	Analysis sample size
N	for	Total sample size
p	for	Probability
r	for	Pearson product-moment correlation
R	for	Multiple correlation
R^2	for	Multiple correlation squired
RMR	for	Root mean squared residual
RMSEA	for	Root mean square error of approximation
SD	for	Standard deviation
SE	for	Standard error
SS	for	Sum of squares
t	for	Student’s *t* distribution
TE	for	Total effect
ULCI	for	Upper limit of confidence interval
α	for	Cronbach’s index of internal consistency
β	for	Standardized multiple regression coefficient
η^2	for	Eta-squared effect size
χ^2	for	Chi-square test value
χ^2/df	for	Chi-square relative to its degree of freedom

Section 1: Study 1 Results

Part 1: Descriptive statistics of Study 1 samples

Study 1 samples included 220 university students, 73% were female and 27% were male. They were undergraduate (89%) and post graduate students (11%) from four universities in Thailand (Srinakharinwirot University, National Institute of Development Administration, Rajamangala University of Technology Krungthep, and Prince of Songkla University). Their age ranged from 20 to 30 years (*M* = 22.14, *SD* = 1.80) and they were studying business management, finance, and economics (55%), psychology (15%), arts (15%), and the humanities (14%).

Fifty-three percent of the participants stated that they knew someone from at least one of the AEC countries besides Thailand. Twenty five percent reported that they knew someone from Myanmar, followed by Laos (19%) and Malaysia (19%), while only 0.5% reported that they knew someone from Brunei.

Table 1

Proportion of Respondents by Gender, Age, Faculty, and Academic Year

Item	Frequency	%
Gender		
Female	160	72.73
Male	60	27.27
Age		
20 years	22	10.00
21 years	70	31.82
22 years	72	32.73
23 years	25	11.36
24 years	8	3.64
25 years	6	2.73
More than 25 years old	17	7.73
Education level		
Bachelor's degree	195	88.64
Master's degree	25	11.36
Faculty		
Business management, finance, and economics	120	54.55
Psychology	33	15.00
Applied arts	32	14.55
Humanities	30	13.64
Law	2	0.91
Computer engineering	2	0.91
Applied science	1	0.45

(continued)

Item	Frequency	%
College year (bachelor’s degree)		
Year 3	46	20.91
Year 4	149	67.73
College year (master's degree)		
Year 1	15	6.82
Year 2	5	2.27
Year 3	3	1.36
Year 4	2	0.91
Total sample size	220	100.00

Table 2

Proportion of Respondents That Know/Do Not Know Someone From AEC Countries

Item	Frequency	%
Know someone from Brunei		
Yes	1	0.45
No	219	99.55
Know someone from Cambodia		
Yes	21	9.55
No	199	90.45
Know someone from Indonesia		
Yes	15	6.82
No	205	93.18
Know someone from Laos		
Yes	42	19.09
No	178	80.91

(continued)

Item	Frequency	%
Know someone from Malaysia		
Yes	42	19.09
No	178	80.91
Know someone from Myanmar		
Yes	55	25.00
No	165	75.00
Know someone from the Philippines		
Yes	34	15.45
No	186	84.55
Know someone from Singapore		
Yes	34	15.45
No	186	84.55
Know someone from Vietnam		
Yes	31	14.09
No	189	85.91
Total sample size	220	100.00

Table 3

Proportion of Respondents That Know/Do Not Know Someone From Any of the AEC Countries Besides Thailand

Item	Frequency	%
Know someone from any of the AEC countries besides Thailand		
Yes	117	53.18
No	103	46.82
Total sample size	220	100.00

Part 2: Study 1 data manipulation and distribution

Independent variable coding

The competence and warmth stereotype, which were categorical variables, were included in the analysis by transforming them into dichotomous variables. The indicator coding and effect coding methods were compared; the indicator coding method was chosen.

<u>Indicator coding</u>

The indicator coding uses value 1 to represent the membership group and 0 to represent the reference group. The coefficients from the indicator coding are the mean differences between the membership groups and the reference group (Cohen, Cohen, West, & Aiken, 2013). Kugler, Trail, Dziak, and Collins (2012) pointed out that indicator coding regression coefficients do not correspond with the classical main effect or interaction effect, which are produced from ANOVA. Instead, they correspond with simple effects, which are the effects of the variables when all other variables are set to zero.

<u>Effect coding</u>

Effect coding uses value 1 to represent a membership group and -1 to represent the reference group instead of 0. The coefficients from effect coding are the mean differences of each group when compared with the grand mean (Cohen et al., 2013). The effect coding regression coefficients corresponds to the classical definitions of main effects and interaction effects (Kugler et al., 2012).

Decision for coding system

For this study the indicator coding method was chosen because this study aimed to compare high stereotype groups to low stereotype groups; thus the coefficients of interest were the simple effects of one stereotype when the effect of another stereotype was absent. Table 4 presents the indicator coding scheme.

Reference group

The high stereotype groups were selected as the reference group (assign value = 0) because the mean scores for both the blatant and subtle discrimination scores were lower, indicating that discrimination was absent when the participants thought that the candidates were from high stereotype groups. In addition, this study manipulated all of the variables so that they had the same direction, which is the high scores representing negative valences.

Table 4

Indicator Coding of Independent Variables

Manipulation		Coding values	
		COMPETENCE	WARMTH
High competence	High warmth	0	0
High competence	Low warmth	0	1
Low competence	High warmth	1	0
Low competence	Low warmth	1	1

Table 5

Independent Variables Frequency

Variable		WARMTH	
		High	Low
COMPETENCE	High	55	55
	Low	55	55

Table 6

Means and Standard Deviations of Dependent Variables by Competence Stereotype Groups

Competence stereotype	High			Low		
	M	*SD*	*n*	*M*	*SD*	*n*
BLATANT	2.35	0.80	110	2.72	0.84	110
SUBTLE	2.44	0.62	110	2.58	0.62	110

Note. High score indicates high discrimination, scale from 1-7.

Table 7

Means and Standard Deviations of Dependent Variables by Warmth Stereotype Groups

Warmth Stereotype	High			Low		
	M	*SD*	*n*	*M*	*SD*	*n*
BLATANT	2.54	0.85	110	2.53	0.84	110
SUBTLE	2.36	0.58	110	2.67	0.63	110

Note. High score indicates high discrimination, scale from 1-7.

Missing data

Table 8 shows the descriptive statistics for the cases with valid values, and the percentage of cases with missing data for each dependent variable items. None of the dependent variable items had missing data—thus imputation was not used.

Table 8

Summary Statistics of Missing Data for Dependent Variables

Variable	Number of valid cases	Min	Max	*M*	*SD*	Missing data	
						Frequency	%
BLATANT	220	1	7	2.53	0.84	0	0
B1	220	1	7	2.30	0.94	0	0
B2	220	1	7	2.67	1.00	0	0
B3	220	1	7	2.64	0.99	0	0
SUBTLE	220	1	7	2.51	0.62	0	0
S1	220	1	7	2.75	0.85	0	0
S2	220	1	7	2.70	0.93	0	0
S3	220	1	7	2.25	0.85	0	0
S4	220	1	7	2.36	0.77	0	0
PJDFT	220	1	100	34.86	14.01	0	0

Note. Higher score indicates higher discrimination, scale ranged from 1-7.

Skewness, kurtosis, and test for normality

All of the items for the dependent variables showed deviation from normality in the Kolmogorov-Smirnov tests (see Table 9). When viewing the item distributions, B1, B2, B3, S3, S4, and PJDFT had significant deviation for skewness. The distributions of the six items had moderate positive skewness but mesokurtic distribution.

Table 9

Skewness, Kurtosis, and Test for Normality Statistics

Variable	Skewness		Kurtosis		Kolmogorov-Smirnov test of normality	
	Statistic	*p*	Statistic	*p*	Statistic	*p*
BLATANT	0.67	.00	1.11	.01	0.12	.00
B1	0.71	.00	0.63	.09	0.28	.00
B2	0.51	.00	0.23	.42	0.23	.00
B3	0.58	.00	0.74	.06	0.22	.00
SUBTLE	0.48	.00	0.07	.72	0.12	.00
S1	0.20	.21	-0.02	.92	0.23	.00
S2	0.13	.41	-0.22	.53	0.21	.00
S3	0.45	.01	-0.06	.96	0.28	.00
S4	0.53	.00	0.27	.37	0.31	.00
PJDFT	0.68	.00	0.33	.29	0.14	.00

Data transformation and results

Square root and logarithmic data transformation are recommended for positive skewness remedy (Hair, Black, Babin, Anderson, & Tatham, 2010; Tabachnick & Fidell, 2007). Both methods were tested and the square root remedy improved the data distribution compared to the logarithmic remedy for all of the items; thus the square root method was selected.

The statistical descriptors of the transformed variable were improved compared to the original variable. However, when the transformed data were analysed to compare the results with the original data, the results from the original and transformed data were in line. Thus this study presents the results from the original data. The details of the data transformation and the comparisons between the two data sets can be found in Appendix G.

Outliers

In order to determine the univariate outliers, the standardized variable values for each item and for each summated scale were created. Cases with values exceeding the threshold of ± 4 were considered outliers (Hair et al., 2010). Only the BLATANT variable had 1 case with standardized variable values greater than ± 4 (see Table 11). This case had the highest score of BLATANT (6.0) and resulted in a standardized value of 4.1. After the data transformation, the standardized value of this case fell under the cut-off threshold—thus this outlier case was retained.

For the multivariate outlier detection, the Mahalanobis D^2 measure divided by the total variable in the path analysis model was used. The cut-off threshold was also ± 4 (Hair et al., 2010). The Mahalanobis D^2 values were based on the 6 variables, including COMPETENCE, WARMTH, CxW, BLATANT, SUBTLE, and PJDFT. There were 2 outliers that had values greater than 4 (see Table 11). These outliers were retained.

Table 10

Summary Statistics for Univariate Outliers Analysis

Variable	Univariate outliers
	Number of cases with standardized values exceeding ±4
B1	0
B2	0
B3	0
S1	0
S2	0
S3	0
S4	0
PJDFT	0

Table 11

Summary Statistics for Univariate and Multivariate Outliers Analysis

Variable	Univariate outliers	Multivariate outliers
	Number of cases with standardized values exceeding ±4	Number of cases with a value of D^2/df greater than ±4 (df = 6)[a]
BLATANT	1	2
SUBTLE	0	
PJDFT	0	

[a]Mahalanobis D^2 value based on the 6 variables: COMPETENCE, WARMTH, CxW, BLATANT, SUBTLE, PJDFT.

Internal consistency of dependent measures

The 3 items for the blatant hiring discrimination scale had corrected item-total correlations (CICT) between .61- .77 and a Cronbach's alpha coefficient of .83. The 4 items for the subtle hiring discrimination scale had corrected item-total correlations between .41-.60 and a Cronbach's alpha coefficient of .70 (see Appendix G). Both scales had an acceptable level of internal reliability for both before and after the data transformation, although the internal reliability of the subtle hiring discrimination scale should be further improved.

Homoscedasticity

The Levene's test was used to test whether the blatant hiring discrimination scale, the subtle hiring discrimination scale, and the prejudice measure exhibited equal levels of variance across competence stereotype and warmth stereotype groups or not. Levene's tests for all instances were non-significant, indicating equal variances. The blatant hiring discrimination scale, the subtle hiring discrimination scale, and the prejudice measures did not have a problem with heteroscedasticity (see Appendix G).

Correlated errors

The participants of different genders, ages, educational levels, that studied in different faculties, and that had different degrees of familiarity with AEC citizens may have had different experiences that could have caused the correlated errors. In order to identify and reduce these correlated errors, the blatant and subtle hiring discrimination scores were tested against these demographic variables (see Appendix G).

For the age of the respondents, regression analysis was used. The results of the regression indicated that the respondents' age did not significantly predict blatant hiring discrimination or subtle hiring discrimination scores.

One-way ANOVA was used to test for the differences in the dependent variables among educational level, faculties, and AEC familiarity. The analysis showed that there were no significant differences between demographic groups. It can be concluded that the data did not have problems with correlated errors from these demographic variables and thus remedies for correlated errors were not required. The results from the transformed data also confirmed that the data did not have problems with correlated errors.

Linearity

The scatter plot between BLATANT, SUBTLE, and PJDFT showed linear patterns in the data, and thus the data were suitable for path analysis (see Appendix G).

Part 3: Manipulation checks for Study 1

Competence manipulation check

The participants rated their perception about people from the manipulated country on a competence scale (competent and capable, $\alpha = .92$) and a warmth scale (friendly and warm, $\alpha = .91$) for a manipulation check (Cuddy et al., 2007; Fiske et al., 2002). An ANOVA of 2 (Competence: high, low) × 2 (Warmth: high, low) showed that the manipulation was successful. There was a main effect of competence manipulation on the competence scale, $F(1, 218) = 426.49$, $p < .001$. Countries in the high competence condition were rated as having more competent citizens ($M = 5.89$, $SD = 0.68$) than countries having a low competence condition ($M = 3.49$, $SD = 1.01$). On the other hand, there was no statistically significant difference for the warmth rating between the respondents in the high warmth and low warmth condition, $F(1, 218) = 2.15$, $p = .144$. The countries in the high warmth and low warmth condition were rated similarly on the competence rating (high warmth condition $M = 4.00$, $SD = 1.65$; low warmth condition $M = 4.32$, $SD = 1.62$).

Warmth manipulation check

One-way ANOVA was conducted in order to compare the competence rating and the warmth rating among the high warmth and low warmth conditions. There was a main effect of the warmth stereotype on the warmth scale, $F(1, 56) = 374.21$, $p < .001$. The countries in the high warmth condition were rated as having warmer citizens ($M = 5.45$, $SD = 0.95$) than the countries in the low warmth condition ($M = 2.86$, $SD = 1.04$).

There was no statistically-significant difference in the competence rating between the respondents in the high and the low competence condition, $F(1, 218) = .50$, $p = .48$. The countries in the high competence and low competence condition were rated similarly on the warmth rating (high competence condition $M = 4.62$, $SD = 1.56$; high competence condition $M = 4.76$, $SD = 1.39$).

From these analyses, it can be concluded that the manipulation of the competence and warmth stereotypes was successful. For detailed statistics see Appendix I.

Part 4: Descriptive statistics of Study 1 variables

Correlations among variables

Bivariate correlations were used to analyse the relationships between all 6 variables. The full correlation metrics for Study 1 variables are presented in Table 12. There were 10 pairs that were significantly correlated at the .01 level. Their correlation coefficients were between .19 and .58. All of them were positive correlations and none was higher than .80; thus the data did not have a multicolinearity issue.

Correlations among dependent variables

Blatant hiring discrimination was positively correlated with subtle hiring discrimination (r = .48, p < .01), and prejudice was positively correlated with blatant hiring discrimination (r = .19, p < .01) and subtle hiring discrimination (r = .34, p < .01). The results showed a positive relationship between the two discriminatory behaviours and prejudice.

Correlations among independent and dependent variables

The competence stereotype was positively correlated with blatant hiring discrimination (r = .23, p < .01) but not subtle hiring discrimination (r = .11, *ns*). On the other hand, the warmth stereotype was positively correlated with subtle hiring discrimination (r = .25, p < .01) and prejudice (r = .34, p < .01) but not with blatant hiring discrimination (r = -.01, *ns*). The correlations showed that when the competence stereotype changed from high to low, blatant hiring discrimination increased. On the other hand, when the warmth stereotype changed from high to low, the prejudice and subtle hiring discrimination increased.

Means and standard deviations by stereotype groups

Blatant hiring discrimination among 4 countries

The candidate from the high competence-high warmth (HC-HW) stereotyped country had the lowest score for blatant hiring discrimination (*M* = 2.29, *SD* = .75) while the candidate from the low competence-high warmth (LC-HW) stereotyped country had the highest blatant hiring discrimination score (*M* = 2.80, *SD* = .87). Post hoc analysis also confirmed the statistical difference between the HC-HW and LC-HW countries. This result suggests that there is a potential interaction effect between the competence and warmth stereotype—that the combination of the low competence with the high warmth stereotype resulted in greater blatant hiring discrimination than the low competence combined with the low warmth stereotype.

Subtle hiring discrimination among 4 countries

The candidate from the HC-HW stereotyped country had the lowest score for subtle hiring discrimination (*M* = 2.30, *SD* = .61) while the candidate from the low competence-low warmth (LC-LW) stereotyped country had the highest subtle hiring discrimination score (*M* = 2.75, *SD* = .65). Post hoc analysis also confirmed the statistical differences between the HC-HW and LC-LW countries. In addition, post hoc analysis also showed that the LC-HW stereotyped country' subtle hiring discrimination score (*M* = 2.42, *SD* = .55) was also significantly lower than that of the LC-LW country. The LC-HW country, which had the highest blatant hiring discrimination score, had the second lowest score for subtle hiring discrimination.

Table 12

Correlations, Means, Standard Deviations, and Score Ranges of Study 1 Variables

	1	2	3	4	5	6
1. COMPETENCE	-					
2. WARMTH	.00	-				
3. CxW	.58**	.58**	-			
4. BLATANT	.23**	-.01	.08	-		
5. SUBTLE	.11	.25**	.22**	.48**	-	
6. PJDFT	.00	.34**	.20**	.19**	.34**	-
M	.50	.50	.25	2.53	2.51	34.86
SD	.50	.50	.43	.84	.62	14.10
Score range	0-1	0-1	0-1	1-7	1-7	0-100

** $p < .01$ (2-tailed).

Table 13

Means and Standard Deviations of Blatant and Subtle Hiring Discrimination by Stereotype Groups and Bonferroni Post Hoc Test

Measure	HC-HW [1]	HC-LW [2]	LC-HW [3]	LC-LW [4]	Post hoc
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	
BLATANT	2.29 (.75)	2.41 (.85)	2.80 (.87)	2.65 (.82)	1 < 3
SUBTLE	2.30 (.61)	2.59 (.60)	2.42 (.55)	2.75 (.65)	1 < 4, 3 < 4

Note. The numbers in square brackets in the column heads refer to the numbers used for illustrating significant differences in the "Post hoc" column.

Part 5: Path analysis results (Model 1)

This section presents the results from Study 1 path analysis model (Model 1). The analysis model was analysed from PRELIS data, and the model consisted of 3 independent variables, 2 dependent variables, and 1 covariate. Total samples for the analysis were 220.

Fit indices

<u>Overall fit</u>

The model had $\chi^2 = 51.56$, $df = 1$, $N = 220$, $p < .001$, which indicated that the observed covariance matric did not fit with the estimated covariance matric.

<u>Absolute fit indices</u>

The value for GFI was .94, which was higher than the guideline of .90 (Hair et al., 2010); indicating a good fit. The normed χ^2 (χ^2/df) was 51.56, which was higher than the rage of 2 to 5 and is considered a poor fit; the standardized root mean square residual (SRMR) was .09, which was higher than the conservative value of .05; and the RMSEA was .48, higher than guideline of .08 (Hair et al., 2010). Thus out of 4 absolute fit indices, only one of them indicated a good fit.

<u>Incremental fit index</u>

The CFI was .86, which was lower than the cut-off threshold of .97 according to Hair et al. (2010) and was considered a poor fit.

<u>Standardized residual</u>

The largest standardized residual was 5.68, which was higher than the cut-off criteria of 2. The largest modification index was the relationship between BLATANT and SUBTLE since BLATANT and SUBTLE were the highest correlated pairs among all the dependent variables (r = .48, $p < .01$).

Summary and sources of poor fit

The fit indices indicated that the model had a mediocre fit since the model passed 1 out of 4 absolute fit indices and did not pass the incremental fit index. The main source of poor fit was from the large standardized residual between blatant and subtle hiring discrimination as indicated in the largest standardized residual report. However, no adjustment was made to the model because this study aimed to test that the hypothesis that these two type of discrimination were separate constructs. Thus the original model was used.

Controlled variable

Prejudice had direct effects on both blatant hiring discrimination (β = .22, $p <$ .01) and subtle hiring discrimination (β = .29, $p < .001$). The significant direct effects indicated that the perceivers' level of prejudice toward the candidate's nationality as measured by the feeling thermometer positively predicted their blatant and subtle hiring discrimination against the candidate. Participants that rated the candidate's country more negatively on the feeling thermometer were also less likely to hire the candidate from that country, and perceived them poorly regarding career advancement potential, social fit with co-workers, and had less confidence in their decision to hire the candidate.

These prejudice effects were controlled in the analysis model so that the estimated effects of the stereotypes were an unbiased estimation without the effect of prejudice.

Direct effects on blatant hiring discrimination

The analysis revealed that the competence stereotype had a significant direct effect on blatant hiring discrimination ($\beta = .31$, $p < .001$) while the warmth stereotype ($\beta = .00$, *ns*) and CxW ($\beta = -.14$, *ns*) did not, when controlling for prejudice. Standardized parameter estimates are provided in Figure 12.

The significant positive direct effect from the competence stereotype on blatant hiring discrimination ($\beta = .31$, $p < .001$) indicated that the low competence stereotype had a significant positive effect on blatant hiring discrimination, when the warmth stereotype was high (i.e. the negative valence from the warmth stereotype was absent), and prejudice was controlled for. The highly-competent candidate from the LC-HW stereotyped country was less likely to be hired compared to the candidate of the same profile from the HC-HW stereotyped country, when the perceivers' level of prejudice was controlled for. This result supported H1.1a

The non-significant direct effect from the warmth stereotype on blatant hiring discrimination ($\beta = .00$, *ns*) indicated that the warmth stereotype did not have a significant effect on blatant hiring discrimination, when the competence stereotype was high and prejudice was controlled for. The highly-competent candidates from the HC-HW and HC-LW stereotyped countries had an equal chance to be hired, when the perceivers' level of prejudice was controlled for. This result did not support H1.2a.

The non-significant direct effect from the interaction between the competence and warmth stereotypes on blatant hiring discrimination ($\beta = -.14$, *ns*) indicated that the effect of the competence stereotype did not significantly vary with the warmth stereotype, and the effect of the warmth stereotype did not significantly vary with the competence stereotype, when prejudice was controlled for. Thus the highly-competent candidates from the low competence stereotyped countries were less likely to be hired regardless of how their countries were perceived on the warmth dimension, when controlling for prejudice. This result did not support H1.3a.

In sum, the analyses from Model 1 revealed that the highly-competent candidates from the low competence stereotyped countries were more likely to be blatantly discriminated against compared to their counterparts from the higher competence stereotyped group, regardless of how they were perceived on the warmth dimension, even when controlling for the effect from the perceivers' prejudice. The warmth stereotype however did not directly predict how the candidates would be blatantly discriminated against when controlling for the effect of the perceivers' prejudice.

Direct effects on subtle hiring discrimination

The competence stereotype (β = .10, *ns*), the warmth stereotype (β = .14, *ns*), and CxW (β = .03, *ns*) did not have a significant direct effect on subtle hiring discrimination when controlling for prejudice. The standardized parameter estimates are provided in Figure 12.

The non-significant direct effect from the competence stereotype on subtle hiring discrimination (β = .10, *ns*) indicated that the competence stereotype did not have a significant effect on subtle hiring discrimination, when the warmth stereotype was high and prejudice was controlled for. The highly-competent candidates from the LC-HW and HC-HW stereotyped countries were perceived equally on the subtle hiring discrimination scale, when controlling for the perceivers' level of prejudice. This result did not support H1.1b.

The non-significant direct effect from the warmth stereotype on subtle hiring discrimination (β = .14, *ns*) indicated that the warmth stereotype did not have a significant effect on subtle hiring discrimination, when the competence stereotype was high and prejudice was controlled for. The highly-competent candidates from HC-LW and HC-HW stereotyped country were perceived equally on the subtle hiring discrimination scale, when controlling for the perceivers' level of prejudice. This result did not support H1.2b.

The non-significant direct effect from the interaction between the competence and warmth stereotype on subtle hiring discrimination (β = .03, *ns*) indicated that the effect of the competence stereotype did not significantly vary with the warmth stereotype, and the effect of the warmth stereotype also did not significantly vary with the competence stereotype, when controlling for perceivers' level of prejudice. This result did not support H1.3b.

In sum, the analyses from Model 1 revealed that, when perceivers' prejudice level was controlled for, the candidate's country competence stereotype, the warmth stereotype, and their interaction did not predict how the highly-competent candidates were subtlety discriminated against, i.e. the candidates were perceived equally in areas regarding career advancements potential, social fit with co-workers, social fit with customers, and the participants also had less confidence in their decisions to hire the candidate.

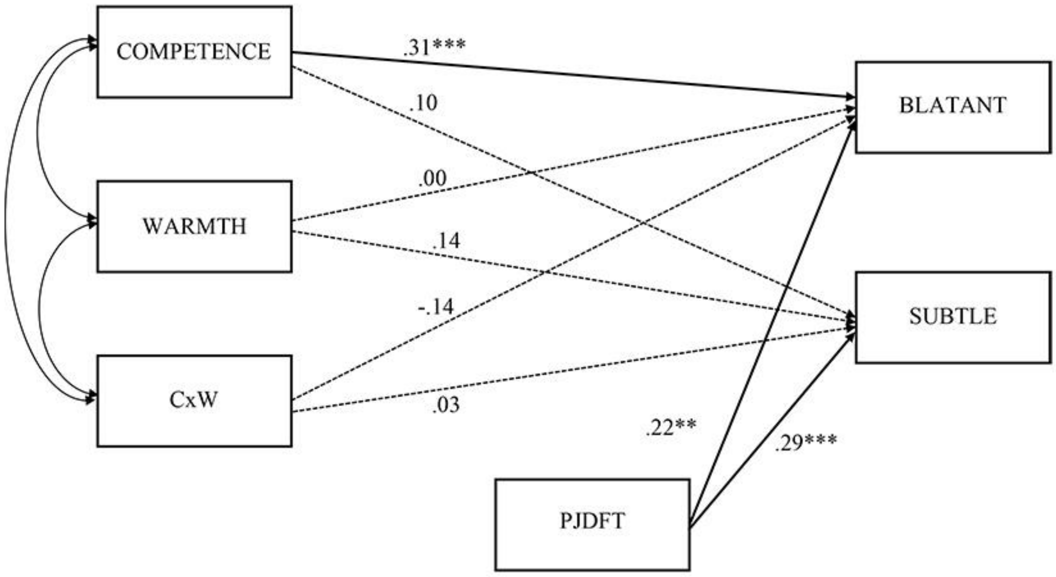

Figure 12. *The standardized coefficients for Study 1 main model (Model 1). Chi-square (1, N = 220) = 51.56, p < .001, GFI = .94, RMR = .05, standardized RMR = .09, RMSEA = .48, CFI = .86. Statistically-significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. **p < .01. ***p < .001.*

Table 14

Direct and Total Effects on Blatant and Subtle Hiring Discrimination (Model 1)

Variable	Statistic	BLATANT DE	BLATANT TE	SUBTLE DE	SUBTLE TE
COMPE-TENCE	β	.31***	.31***	.10	.10
	b	.52***	.52***	.12	.12
	SE	.15	.15	.11	.11
	t	3.39	3.42	1.11	1.11
WARMTH	β	.00	.00	.14	.14
	b	.00	.00	.17	.17
	SE	.16	.16	.11	.11
	t	-.02	-.02	1.49	1.51
CxW	β	-.14	-.14	.03	.03
	b	-.28	-.28	.04	.04
	SE	.22	.21	.16	.15
	t	-1.28	-1.29	.26	.27
PJDFT	β	.22**	.22**	.29***	.29***
	b	.01**	.01**	.01***	.01***
	SE	.00	.00	.00	.00
	t	3.26	3.29	4.28	4.32
R^2		.10		.15	

Chi-square (1, *N* = 220) = 51.56, *p* < .001, GFI = .94, RMR = .05, standardized RMR = .09, RMSEA = .48, CFI = .86.

***p* < .01. ****p* < .001.

Part 6: Alternative models for Study 1 (Model 2 and Model 3)

In Model 1, the perceivers' level of prejudice was used as a control variable in order to distinguish the effect of stereotypes from prejudice. However, the strong positive relationship between blatant hiring discrimination, subtle hiring discrimination, and prejudice suggested that prejudice was an important part of the mechanism that accounted for the discriminatory behaviours. To test this hypothesis, two alternative models were provided. Model 2 and Model 3 repositioned prejudice as a mediator of competence stereotype, warmth stereotype, CxW on blatant hiring discrimination, and subtle hiring discrimination. Model 2 tested the full parameter while Model 3 offered a parsimonious approach to testing Study 1 hypothesis with a higher statistical power model.

Model 2 – an alternative model for Study 1 when prejudice was a mediator

Model 2 was analysed from the PRELIS data, consisting of 3 independent variables, 2 dependent variables, and 1 mediator. The total samples for analysis were 220. This alternative model was introduced to investigate the role of prejudice in mediating the effects of the competence and the warmth stereotype on blatant and subtle hiring discrimination. The standardized coefficients of Model 2 are presented in Figure 13.

Fit indices

<u>Overall fit</u>

Model 2 indicated $\chi^2 = 51.56$, $df = 1$, $N = 220$, $p < .001$, which showed that the observed covariance matric did not fit with the estimated covariance matric.

Absolute fit indices

The value for GFI was .94, which was higher than the guideline of .90 (Hair et al., 2010), indicating a good fit. The normed χ^2 (χ^2/df) was 51.56, which was higher than the rage of 2 to 5 and is considered a poor fit. The RMSEA was .48, which was higher than Hair et al. (2010) guideline of .08, indicating poor fit. Finally the SRMR was .09, which was higher the conservative value of .05. Thus out of 4 absolute fit indices, 3 indicated that the model had a poor fit.

Incremental fit index

The CFI was .86, which was lower than the cut-off threshold of .97 (Hair et al., 2010) and was considered a poor fit.

Standardized residual

The largest standardized residual was 11.05, which were higher than the cut-off criteria of 2. The largest modification index was the relationship between BLATANT and SUBTLE.

Summary and source of poor fit

The fit indices indicated that Model 2 had a mediocre fit since the model passed only 1 from 4 absolute fit indices and did not pass the overall fit or the incremental fit index. The main source of poor fit was from the large standardized residual between blatant and subtle hiring discrimination as indicated in the largest standardized residual report. However, no adjustment was made to the model because this study aimed to test that the hypothesis that the two types of discrimination were separate constructs. Thus the original model was used for Model 2.

Mediating effect of prejudice on blatant hiring discrimination

The effect of competence stereotype

The mediation analysis revealed that prejudice did not mediate the effect of competence stereotypes on blatant hiring discrimination. The competence stereotype had a significant total effect on blatant hiring discrimination (TE $\beta = .31$, $p < .01$) and the effect remained significant when controlling for prejudice (DE $\beta = .31$, $p < .001$). The indirect effect was also non-significant (IE $\beta = .00$, *ns*).

The effect of warmth stereotype

On the other hand, the results showed that prejudice mediated the effect of warmth stereotype on blatant hiring discrimination. The warmth stereotype did not have a significant total effect on blatant hiring discrimination (TE $\beta = .07$, *ns*). However, when controlling for prejudice, the effect of the warmth stereotype on blatant hiring discrimination was reduced to zero (DE $\beta = .00$, *ns*), and the indirect effect of warmth stereotype on blatant hiring discrimination was significant (IE $\beta = .07$, $p < .05$).

The effect of CxW

Finally, the results showed that prejudice did not mediate the effect of CxW on blatant hiring discrimination. The CxW did not have a significant total effect on blatant hiring discrimination (TE $\beta = -.14$, *ns*) and the effect was not reduced when controlling for prejudice (DE $\beta = -.14$, *ns*). In addition, the indirect effect of CxW on blatant hiring discrimination was not significant (IE $\beta = .00$, *ns*).

In sum, these results indicated that prejudice mediated the warmth effects but did not mediate the competence not the CxW effects on blatant hiring discrimination against highly-competent candidates, when controlling for prejudice.

Mediating effect of prejudice on subtle hiring discrimination

<u>The effect of competence stereotype</u>

The mediation analysis revealed that prejudice did not mediate the effect of competence stereotypes on subtle hiring discrimination. The competence stereotype did not have a significant total effect on subtle hiring discrimination (TE $\beta = .10$, *ns*) and the effect was not reduced when controlling for prejudice (DE $\beta = .10$, *ns*). The indirect effect was also non-significant (IE $\beta = .00$, *ns*).

<u>The effect of warmth stereotype</u>

On the other hand, the results showed that prejudice mediated the effect of warmth stereotype on subtle hiring discrimination. The warmth stereotype had a significant total effect on subtle hiring discrimination (TE $\beta = .23$, $p < .01$). When controlling for prejudice, the effect of the warmth stereotype on subtle hiring discrimination was reduced to a non-significant level (DE $\beta = .14$, *ns*), and the indirect effect of warmth stereotype on subtle hiring discrimination was significant (IE $\beta = .10$, $p < .001$).

<u>The effect of CxW</u>

Finally, the results showed that prejudice did not mediate the effect of CxW on subtle hiring discrimination. The CxW did not have a significant total effect on subtle hiring discrimination (TE $\beta = .03$, *ns*) and the effect was not reduced when controlling for prejudice (DE β = .03, *ns*). In addition, the indirect effect of CxW on subtle hiring discrimination was not significant (IE β = .00, *ns*).

Finally, the CxW did not have significant total, direct or indirect effects on subtle hiring discrimination (TE β = .03, *ns*; IE β = .00, *ns*; DE β = .03, *ns*).

In sum, these results indicated that prejudice mediated the warmth effect but not the competence not the CxW effects on subtle hiring discrimination against highly-competent candidates., when controlling for prejudice.

In conclusion, Model 2 revealed that the non-significant direct effect of the warmth stereotype on blatant and subtle hiring discrimination identified in Model 1 was a result of the perceivers' prejudice, which mediated the effect of the warmth stereotype on blatant and subtle hiring discrimination but not the effect of competence on either type of hiring discrimination.

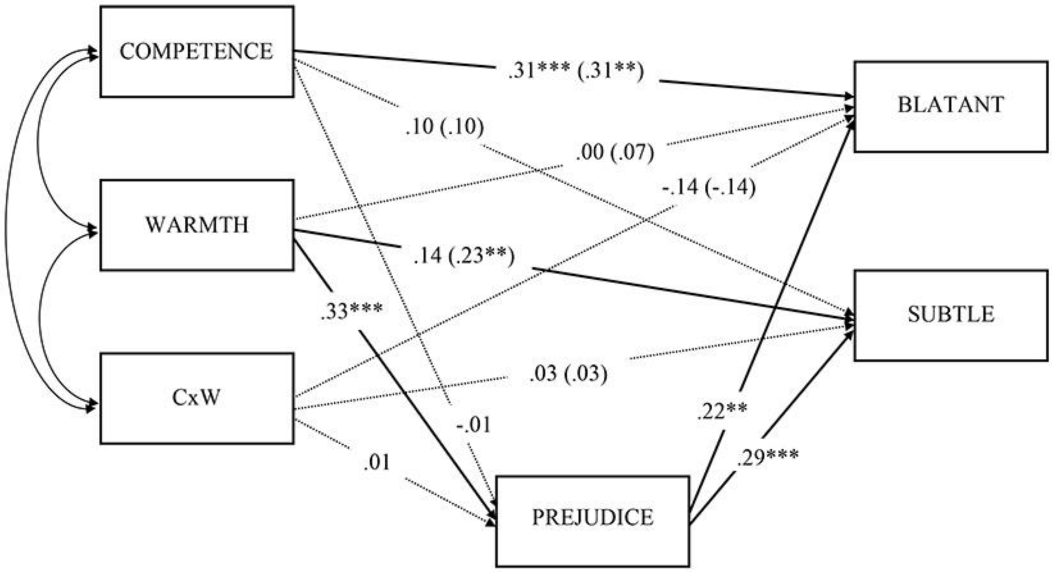

Figure 13. *The standardized coefficients for Study 1 alternative model (Model 2). Chi-square (1, N = 220) = 51.56, p < .001, GFI = .94, RMR = .05, standardized RMR = .09, RMSEA = .48, CFI = .86. Statistically-significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. Values in brackets are the total effects.**p < .01. ***p < .001.*

Table 15

Direct, Indirect, and Total Effects on Blatant and Subtle Hiring Discrimination (Model 2)

Variable		BLATANT			SUBTLE			PJDFT		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.31***	.00	.31**	.10	.00	.10	-.01	-	-.01
	b	.52***	.00	.52**	.12	.00	.12	-.27	-	-.27
	SE	.15	.03	.15	.11	.03	.11	2.54	-	2.53
	t	3.40	-.11	3.32	1.11	-.11	1.04	-1.11	-	-.11
WARM-TH	β	.00	.07*	.07	.14	.10***	.23**	.33***	-	.33***
	b	.00	.12*	.12	.17	.12***	.29**	9.31***	-	9.31***
	SE	.16	.05	.16	.11	.04	.11	2.54	-	2.53
	t	-.02	2.46	.78	1.50	2.81	2.52	3.66	-	3.69
CxW	β	-.14	.00	-.14	.03	.00	.03	.01	-	.01
	b	-.28	.01	-.27	.04	.00	.05	.35	-	.35
	SE	.22	.05	.22	.16	.05	.16	3.60	-	3.57
	t	-1.28	.10	-1.24	.27	.10	.28	.10	-	.10
PJDFT	β	.22**	-	.22**	.29***	-	.29***	-	-	-
	b	.01**	-	.01**	.01***	-	.01***	-	-	-
	SE	.00	-	.00	.00	-	.00	-	-	-
	t	3.27	-	3.29	4.29	-	4.32	-	-	-
R^2			.10			.15			.11	

Chi-square (1, *N* = 220) = 51.56, *p* < .001, GFI = .94, RMR = .05, standardized RMR = .09, RMSEA = .48, CFI = .86.

**p* < .05. ***p* < .01. ****p* < .001.

Model 3 – a parsimonious alternative model for Study 1

Model 3 was introduced to address the shortcoming of Model 1 and Model 2 in three areas.

First, prejudice was used as mediator for competent and warmth on blatant and subtle hiring discrimination.

Second, an error term between BLATANT and SUBTLE was relaxed. This adjustment was made to improve the overall model fit since Model 1 and Model 2 had poor fit as a result of the large standardized residual between blatant and subtle hiring discrimination.

Finally, non-significant relationships between variables were dropped including the direct path from competence stereotype to subtle hiring discrimination, the direct path from warmth stereotype to blatant hiring discrimination, and the direct path from CxW to subtle hiring discrimination. Model 3 retained only the mediating effect of prejudice on warmth stereotype on subtle hiring discrimination thus the direct path from competence stereotype and CxW to prejudice were also dropped.

Model 3 was analysed from the PRELIS data, consisting of 3 independent variables, 2 dependent variables, and 1 mediator. The total samples for analysis were 220. The standardized coefficients of Model 3 are presented in Figure 14.

Fit indices

<u>Overall fit</u>

The model had $\chi^2 = 3.46$, $df = 5$, $N = 220$, $p = .63$, which indicated that the observed covariance matric fitted with the estimated covariance matric.

Absolute fit indices

The value for GFI was .99, which was higher than the guideline of .90 (Hair et al., 2010); thus the model had a good fit. The normed χ^2 (χ^2/df) was 0.69, which was lower than the rage of 2 to 5 and is considered a good fit; the standardized root mean square residual (SRMR) was .03, which was lower than the conservative value of .05; and the RMSEA was .00, lower than guideline of .08 (Hair et al., 2010). The model passed all 4 absolute fit indices which indicated a good fit.

Incremental fit index

The CFI was 1.00, which was higher than the cut-off threshold of .97 according to Hair et al. (2010) and was considered a good fit.

Standardized residual

The largest standardized residual was 1.69, which was lower than the cut-off criteria of 2.

Summary of model fit

The fit indices indicated that the model had good fit since the model passed all criteria.

The effects on blatant hiring discrimination

The analysis revealed that the competence stereotype had a significant positive direct effect on blatant hiring discrimination ($\beta = .31$, $p < .001$), when controlling for prejudice. In addition, the interaction between competence and warmth stereotypes also had a significant negative direct effect on blatant hiring discrimination ($\beta = -.15$, $p < .05$), when controlling for prejudice.

The mediation analysis revealed that prejudice mediated the effect of warmth stereotypes on blatant hiring discrimination. The warmth stereotype had a significant indirect effect on blatant hiring discrimination via prejudice (TE $\beta = .08$, $p < .01$).

The effects on subtle hiring discrimination

The results confirmed that prejudice mediated the effect of warmth stereotype on subtle hiring discrimination. The warmth stereotype had a significant total effect on subtle hiring discrimination (TE $\beta = .25$, $p < .001$). When controlling for prejudice, the effect of the warmth stereotype on subtle hiring discrimination was significantly reduced (DE $\beta = .15$, $p < .05$), and the indirect effect of warmth stereotype on subtle hiring discrimination was significant (IE $\beta = .10$, $p < .001$).

In sum, Model 3 confirmed that the competence stereotype directly predicted blatant hiring discrimination which supported H1.1a.

In addition, the interaction between competence and warmth stereotype was also significant which supported H1.3a. Moreover, the model showed that the direct effect from warmth stereotype on subtle hiring discrimination was significant which supported H1.2b.

The H1.3a and H1.2b results differed from the results from Model 1 and Model 2 because the non-significant paths in Model 3 were excluded. As a result, Model 3 had a higher predictive power than Model 1 and Model 2.

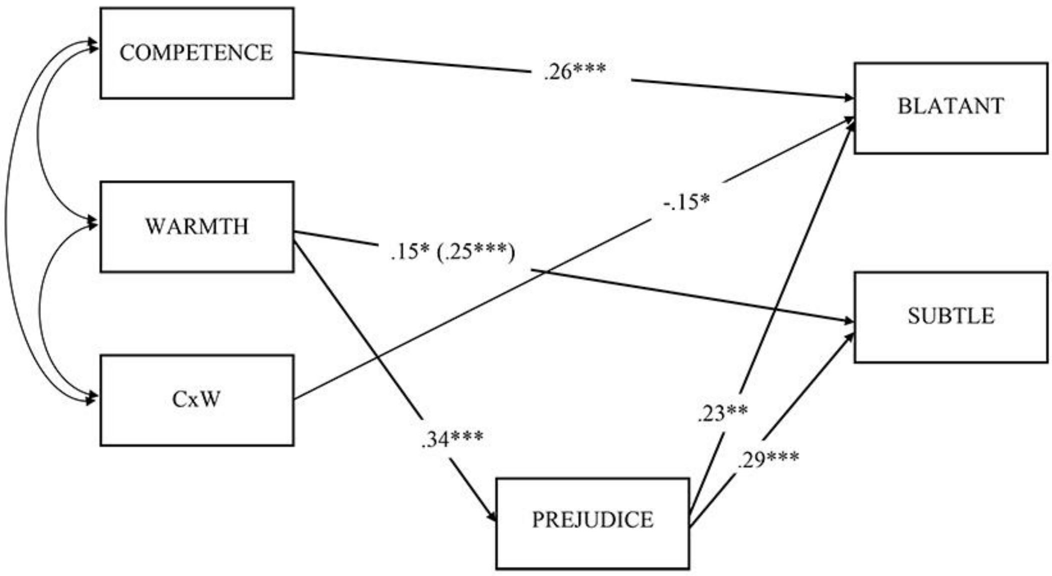

Figure 14. *The standardized coefficients for Study 1 parsimonious model (Model 3). Chi-square (5, N = 220) = 3.46, p = .63, GFI = .99, RMR = .01, standardized RMR = .03, RMSEA = .00, CFI = 1.00. Statistically-significant direct effects are represented with solid lines. Values in brackets are the total effects. *p < .05. **p < .01. ***p < .001.*

Table 16

Direct, Indirect, and Total Effects on Blatant and Subtle Hiring Discrimination (Model 3)

Variable		BLATANT			SUBTLE			PJDFT		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.26***	-	.26***	-	-	-	-	-	-
	b	.44***	-	.44***	-	-	-	-	-	-
	SE	.12	-	.12	-	-	-	-	-	-
	t	3.61	-	3.64	-	-	-	-	-	-
WARM-TH	β	-	.08**	.08**	.15*	.10***	.25***	.34***	-	.34***
	b	-	.13**	0.13**	.19*	.12***	.31***	9.48***	-	9.48***
	SE	-	.04	.04	.08	.04	.08	1.80	-	1.79
	t	-	2.88	2.88	2.42	3.35	4.01	5.27	-	5.31
CxW	β	-.15*	-	-.15*	-	-	-	-	-	-
	b	-.30*	-	-.30*	-	-	-	-	-	-
	SE	.15	-	.15	-	-	-	-	-	-
	t	-2.00	-	-2.02	-	-	-	-	-	-
PJDFT	β	.23***	-	.23***	.29***	-	.29***	-	-	-
	b	.01***	-	.01***	.01***	-	.01***	-	-	-
	SE	.00	-	.00	.00	-	.00	-	-	-
	t	3.40	-	3.42	4.29	-	4.32	-	-	-
R^2			.08			.13			.11	

Chi-square (5, *N* = 220) = 3.46, *p* = .63, GFI = .99, RMR = .01, standardized RMR = .03, RMSEA = .00, CFI = .1.00.

**p* < .05. ***p* < .01. ****p* < .001.

Interaction effect of stereotypes on blatant hiring discrimination

Model 3 showed that the direct interaction effect of the two stereotype dimensions on blatant hiring discrimination was significant (β = -.15, p <.05). Thus the interaction effect was further investigated using a simple slope test.

The PROCESS (Hayes, 2013) was used to analyse the conditioning effect of one stereotype dimension on blatant hiring discrimination when another stereotype dimension was the moderator. The analyses revealed that for the high warmth condition, the competence stereotype had a significant positive effect on blatant hiring discrimination, b = .52, t(196) = 3.38, p < .001. The highly-competent candidate from the LC-HW stereotyped country received a significantly higher level of blatant hiring discrimination than the candidate with the same profile from the HC-HW stereotyped country.

However, for the low-warmth condition, there was no relationship between the competence stereotype and blatant hiring discrimination, b = .24, t(196) = 1.57, p = .12. The highly-competent candidates from the LC-LW and the HC-LW stereotyped countries received equal levels of blatant hiring discrimination.

The means plot shows that the competence stereotype had a greater effect (i.e. steeper slope) when interacting with the high warmth condition compared to the low warmth condition. When the highly-competent candidates came from a country that their citizen are perceived to have low competence stereotype, the high warmth stereotype actually worsened his or her chances to be hired compared to the candidate from the country that their citizen are perceived to have low warmth stereotyped.

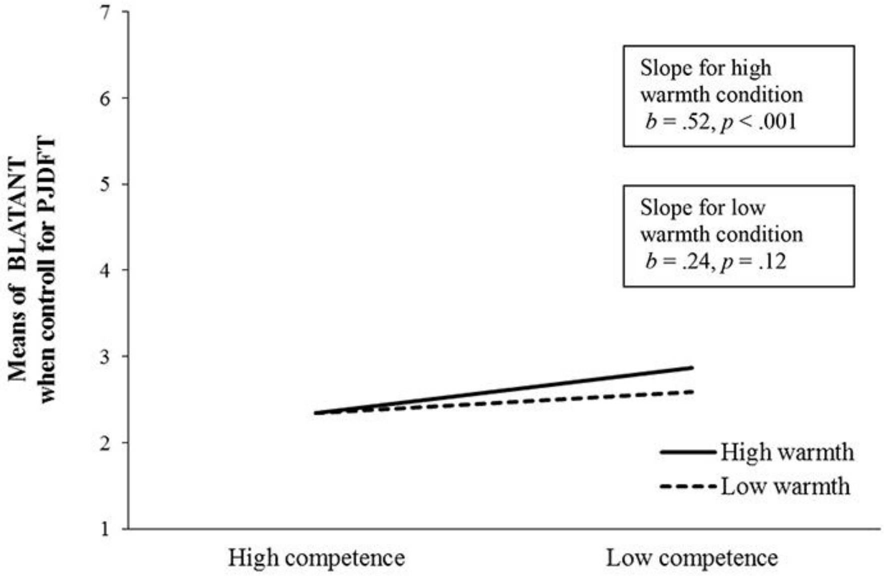

Figure 15. *Means plot of the effect of competence stereotype on blatant hiring discrimination at different values of the warmth stereotype when controlling for prejudice.*

Table 17

Conditional Effect of Competence Stereotype on Blatant Hiring Discrimination at Different Values of Warmth Stereotype, When Controlling for Prejudice

	b	*SE*	*t*	*p*	*LLCI*	*ULCI*
High warmth	.52	.15	3.38	.00	.22	.82
Low warmth	.24	.15	1.57	.12	-.06	.54

Hypothesis testing for Study 1

In sum, the results supported H1.1a, H1.3a, and H1.2b but did not support other hypotheses as summarized in Table 18.

Table 18

Summary of Study 1 Hypothesis Tests

	Hypotheses	Results
H1.1a	The competent stereotype has a direct effect on blatant hiring discrimination such that candidates from high competence stereotyped countries receive lower blatant hiring discrimination, when controlling for prejudice.	Supported
H1.2a	The warmth stereotype has a direct effect on blatant hiring discrimination such that candidates from high warmth countries receive lower blatant hiring discrimination compared to candidates from low warmth stereotyped countries, when controlling for prejudice.	Did not support
H1.3a	There is an interaction between the competence and warmth stereotype on blatant hiring discrimination such that the effect of the competent stereotype on blatant hiring discrimination is greater among high warmth stereotyped groups compared to low warmth stereotyped groups, when controlling for prejudice.	Did not support by Model 1 but supported by the parsimonious model

(continued)

	Hypotheses	Results
H1.1b	The competent stereotype has a direct effect on subtle hiring discrimination such that candidates from high competence stereotyped countries receive lower subtle hiring discrimination, when controlling for prejudice.	Did not support
H1.2b	The warmth stereotype has a direct effect on subtle hiring discrimination such that candidates from high warmth countries receive lower subtle hiring discrimination compared to candidates from low warmth stereotyped countries, when controlling for prejudice.	Did not support by Model 1 but supported by the parsimonious model
H1.3b	There is an interaction between the competence and warmth stereotype on subtle hiring discrimination such that the effect of the warmth stereotype on subtle hiring discrimination is greater among high competence stereotyped groups compare to low warmth stereotyped groups, when controlling for prejudice.	Did not support

Section 2: Study 2 Results

Part 1: Descriptive statistics for Study 2 samples

Study 2 samples included 512 university students, 69% female and 31% male. They were undergraduate (96%) and post graduate students (4%) from four universities in Thailand (Kasetsart University, King Mongkut's University of Technology North Bangkok, Srinakharinwirot University, and University of the Thai Chamber of Commerce). Their age ranged from 19 to 50 years (M = 21.72, SD = 1.87). They were studying in the business, finance, and economics faculties (40%), the social science faculties (27%), the humanities faculties (22%), the applied science faculties (9%), and the industrial technology and management faculties (3%).

Fifty-one percent of the participants stated that they knew someone from other AEC countries besides Thailand. Twenty-two percent of the participants reported that they knew someone from Myanmar, followed by Laos (22%), Singapore (13%), and the Philippines (13%), while only 2% reported that they knew someone from Brunei.

Table 19

Proportion of Respondents by Gender, Age, Academic Year, and Faculty

Item	Frequency	%
Gender		
Female	353	68.95
Male	159	31.05
Age		
19 years	5	0.98
20 years	32	6.25
21 years	224	43.75
22 years	175	34.18
23 years	47	9.18
24 years	12	2.34
25 years	3	0.59
More than 25 years	9	1.76
Not specified	5	0.98
Education level		
Bachelor’s degree	493	96.29
Master’s degree	17	3.32
Ph.D.	2	0.39
College year (bachelor’s degree)		
Year 3	17	3.32
Year 4	475	92.77
Year 5	1	0.20
College year (master's degree)		
Year 1	2	0.39
Year 2	13	2.54
Year 3	0	0.00
Year 4	2	0.39
College year (Ph.D.)		
Year 1	1	0.20
Year 2	0	0.00
Year 3	1	0.20

(continued)

Item	Frequency	%
Social science faculties (SOC)	136	26.56
Social sciences	15	2.93
Psychology	91	17.77
Political sciences	10	1.95
Business, finance, economics faculties (BIZ)	204	39.84
Economics	95	18.55
Business management	87	16.99
Accounting	22	4.30
Humanities (HUMAN)	110	21.48
Humanities	110	21.48
Applied science (SCI)	46	8.98
Applied science	46	8.98
Industrial and technology management (INDUS)	16	3.13
Industrial technology and management	16	3.13
Total sample size	512	100.00

Table 20

Proportion of Respondents That Know/Do Not Know Someone From AEC Countries

Item	Frequency	%
Know someone from Brunei		
Yes	10	1.95
No	502	98.05
Know someone from Cambodia		
Yes	48	9.38
No	464	90.63
Know someone from Indonesia		
Yes	36	7.03
No	476	92.97

(continued)

Item	Frequency	%
Know someone from Laos		
Yes	112	21.88
No	400	78.13
Know someone from Malaysia		
Yes	51	9.96
No	461	90.04
Know someone from Myanmar		
Yes	115	22.46
No	397	77.54
Know someone from the Philippines		
Yes	65	12.70
No	447	87.30
Knew someone from Singapore		
Yes	65	12.70
No	447	87.30
Know someone from Vietnam		
Yes	52	10.16
No	460	89.84
Total sample size	512	100.00

Table 21

Proportion of Respondents That Know/Do Not Know Someone From Any of the AEC Countries Besides Thailand

Item	Frequency	%
Know someone from any of the AEC countries		
Yes	260	50.78
No	252	49.22
Total sample size	512	100.00

Part 2: Study 2 data manipulation and distribution

Independent variable coding

The competence stereotype, the warmth stereotype, and the evaluators' mindset, which were the categorical variables, were included in the analysis by transforming them into dichotomous variables using the indicator coding method.

Reference groups

The high stereotype groups were selected as the reference groups (assign value = 0) because the mean scores for most of the variables were lower than those for the low stereotype groups, indicating that discrimination was absent when the participants thought that the candidates were from the high stereotype groups. The coding is presented in Table 22.

The cooperative mindset group was assigned as the reference group (assign value = 0) and the competitive mindset group was assigned as the indicator group (assign value = 1). This decision was based on the literature review, where discrimination was lower when the participants were under the cooperative mindset even though the mean analyses from Study 2 experiments showed that the cooperative mindset group had higher, but non-significant, mean scores than the competitive mindset group for recommend discrimination, subtle hiring discrimination and probation placement discrimination (see Table 26).

Table 22

Indicator Coding for Independent Variables

Stereotype manipulation		Mindset manipulation	COMPE-TENCE	WARMTH	MINDSET
HC	HW	Cooperative	0	0	0
HC	LW	Cooperative	0	1	0
LC	HW	Cooperative	1	0	0
LC	LW	Cooperative	1	1	0
HC	HW	Competitive	0	0	1
HC	LW	Competitive	0	1	1
LC	HW	Competitive	1	0	1
LC	LW	Competitive	1	1	1

Note. HC = high competence; LC = low competence; HW = high warmth; LW = low warmth.

Table 23

Independent Variables Frequency

Variable		Mindset Manipulation			
		Cooperative		Competitive	
		Warmth manipulation		Warmth manipulation	
		High	Low	High	Low
Competent manipulation	High	64	64	64	64
	Low	64	64	64	64

Table 24

Means and Standard Deviations of Dependent Variables by Competence Stereotype Groups

Competence stereotype	High (n = 256)		Low (n = 256)	
	M	*SD*	*M*	*SD*
REC-DISCRIM	2.54	0.99	2.81	1.06
SLR-DISCRIM	4.68	1.69	5.07	1.66
SUBTLE	2.62	0.82	2.85	0.80
PROBANEED	4.69	1.49	4.91	1.44
PROBATIME	2.24	1.47	2.63	1.55

Note. High scores indicate high discrimination, scale from 1-7.

Table 25

Means and Standard Deviations of Dependent Variables by Warmth Stereotype Groups

Warmth stereotype	High (n = 256)		Low (n = 256)	
	M	*SD*	*M*	*SD*
REC-DISCRIM	2.59	1.03	2.76	1.03
SLR-DISCRIM	4.89	1.66	4.86	1.70
SUBTLE	2.70	0.81	2.77	0.82
PROBANEED	4.75	1.47	4.84	1.47
PROBATIME	2.36	1.44	2.51	1.60

Note. High scores indicate high discrimination, scale from 1-7.

Table 26

Means and Standard Deviations of Dependent Variables by Mindset Manipulation Groups

Evaluator's mindset	Cooperative (*n* = 256)		Competitive (*n* = 256)	
	M	*SD*	*M*	*SD*
REC-DISCRIM	2.72	1.09	2.63	0.97
SLR-DISCRIM	4.88	1.67	4.88	1.70
SUBTLE	2.77	0.83	2.70	0.80
PROBANEED	4.81	1.44	4.79	1.50
PROBATIME	2.39	1.48	2.48	1.56

Note. High scores indicate high discrimination, scale from 1-7.

Missing data

Table 27 shows the descriptive statistics for the cases with valid values, and the percentage of cases with missing data for each dependent variable item. All of the dependent variable items had missing data less than 1% and they appeared to be random. The mean score replacement method was used to treat the missing data (Hair et al., 2010). Means and standard deviations of treated data were the same value as the original data.

Table 27

Summary Statistics for Missing Data for Dependent Variables

Variable	Number of valid cases	*M*	*SD*	Missing data		Missing data treatment	After treatment	
				Frequency	%		*M*	*SD*
REC-DISCRIM	512	2.67	1.03	0	0.0	none	2.67	1.03
SLR-DISCRIM	512	4.88	1.68	0	0.0	none	4.88	1.68
SUBTLE	510	2.73	0.82	2	0.4	n/a	2.73	0.82
S1	510	2.99	1.00	2	0.4	Replace with mean	2.99	1.00
S2	512	2.59	1.01	0	0.0	none	2.59	1.01
S3	512	2.62	0.93	0	0.0	none	2.62	0.93
PROBANEED	512	4.80	1.47	0	0.0	none	4.80	1.47
PROBATIME	510	2.44	1.53	2	0.4	none	2.44	1.52
SS	512	3.86	2.32	0	0.0	none	3.86	2.32
PJDSDS	509	3.06	0.99	3	0.6	n/a	3.06	0.99
SDS1	511	2.84	1.11	1	0.2	Replace with mean	2.84	1.11
SDS2	510	2.92	1.09	2	0.4	Replace with mean	2.92	1.09
SDS3	509	2.93	1.14	3	0.6	Replace with mean	2.93	1.13
SDS4	510	3.55	1.50	2	0.4	Replace with mean	3.55	1.50

Skewness, kurtosis, and test for normality

All of the dependent variables items showed deviation from normality in the Kolmogorov-Smirnov tests (see Table 28). When viewing the data distribution, only SS and S1 had systematic distribution. REC-DISCRIM, S2, S3, PROBATIME, SDS1, SDS2, SDS3, and SDS4 had positive skewness while SLR-DISCRIM and PROBANEED had negative skewness.

Table 28

Skewness, Kurtosis, and Test for Normality Statistics

Variable	Skewness		Kurtosis		Kolmogorov-Smirnov test of normality	
	Statistic	*p*	Statistic	*p*	Statistic	*p*
REC-DISCRIM	.55	.00	.58	.03	.23	.00
SLR-DISCRIM	-.31	.01	-.91	.00	.14	.00
SUBTLE	.28	.01	.18	.38	.13	.00
S1	.14	.19	.23	.28	.19	.00
S2	.33	.00	-.15	.51	.21	.00
S3	.42	.00	.10	.57	.24	.00
PROBANEED	-.55	.00	-.17	.43	.17	.00
PROBATIME	.73	.00	-.39	.03	.24	.00
SS	.01	.90	-.79	.00	.09	.00
PJDSDS	.23	.04	-.45	.01	.08	.00
SDS1	.28	.01	-.15	.52	.19	.00
SDS2	.32	.00	.05	.76	.19	.00
SDS3	.24	.03	-.39	.03	.21	.00
SDS4	.37	.00	-.34	.07	.17	.00

Data transformation and results

Square root and logarithmic data transformation have been recommended for positive skewness remedy (Hair et al., 2010; Tabachnick & Fidell, 2007). The square root remedy improved REC-DISCRIM, S2, S3, SDS1, SDS2, SDS3, and SDS4 distributions while the logarithmic treatment improved the PROBATIME distribution.

SLR-DISCRIM and PROBANEED had negative skewness; thus they were treated by square term reflection, which improved their data distribution.

The statistical descriptors for the transformed variable were improved compared to the original variable. However, when the transformed data were analysed to compare the results with the original data, the results from the original and transformed data were in line. Thus this study presents the results from the original data. The details of the data transformation and the comparisons between the two data sets can be found in Appendix H.

Outliers

In order to determine the univariate outliers, the standardized variable values for each item and each summated scale were created; cases with values exceeding the threshold of ± 4 were considered outliers (Hair et al., 2010). Only the REC-DISCRIM variable had 2 cases with standardized variable values greater than ± 4. These cases had the highest score of REC-DISCRIM (7.0) resulting in a standardized value of 4.2. After the data transformation these cases fell under the cut-off threshold.

For the detection of multivariate outliers, the Mahalanobis D^2 measure divided by the total variable in the path analysis model was used. The cut-off threshold was also ± 4. The Mahalanobis D^2 values were based on the 14 variables. There was no multivariate outlier that had a value greater than 4; thus all cases were retained (see Table 29 and 30).

Table 29

Summary Statistics for Univariate Outliers

Variable	Univariate outliers: Number of cases with standardized values exceeding ±4
REC-DISCRIM	2
SLR-DISCRIM	0
S1	0
S2	0
S3	0
PROBANEED	0
PROBATIME	0
SS	0
SDS1	0
SDS2	0
SDS3	0
SDS4	0

Table 30

Summary Statistics for Univariate and Multivariate Outliers

Variable	Univariate outliers	Multivariate outliers
	Number of cases with standardized values exceeding ±4	Number of cases with a value of D^2/df greater than ±4 (df = 14)[a]
REC-DISCRIM	2	0
SLR-DISCRIM	0	
SUBTLE	0	
PROBANEED	0	
PROBATIME	0	
SS	0	
PJDSDS	0	

[a]Mahalanobis D^2 value based on the 14 dependent variables: COMPETENCE, WARMTH, MINDSET, CxW, CxM, WxM, CxWxM, REC-DISCRIM, SLR-DISCRIM, SUBTLE, PROBANEED, PROBATIME, SS, and PJDSDS.

Internal consistency of dependent measures

Blatant hiring discrimination

The 2 items for the blatant hiring discrimination scale (i.e. REC-DISCRIM and SLR-DISCRIM) were analysed separately in the path analysis model due to low internal consistency. In the pretest sample the Cronbach's alpha coefficient was .43 and in Study 2 experiment sample the Cronbach's alpha coefficient was .33.

Subtle hiring discrimination

The three-item subtle hiring discrimination scale had a corrected item-total correlation (CICT) between .58-.64 and a Cronbach's alpha coefficient of .78; thus the subtle hiring discrimination scale had an acceptable level of internal reliability.

Probation discrimination

The two probation discrimination items (i.e. probation placement and probation time) were analysed separately because of low internal reliability when combined with the three-item subtle hiring discrimination scale (α = .34 for the five-item scale comprised three-item subtle hiring discrimination and two probation items) as well as when combined to create one probation discrimination scale (α = .33 for two probation item scales).

Prejudice

The 4 items for the social distance scale had a corrected item-total correlation (CICT) of .60-.75 and a Cronbach's alpha coefficient of .83, indicating good internal consistency.

For detailed analysis and reports of internal consistency of dependent measures see Appendix H.

Homoscedasticity

The Levene's test was used to test whether the dependent variables exhibited equal levels of variance across the competence stereotype, the warmth stereotype, and the evaluator's mindset groups.

Competence stereotyped groups

The Levene tests for all instances were non-significant, indicating equal variances, and the dependent variables did not have a heteroscedasticity problem.

Warmth stereotyped groups

The Levene's tests showed that all instances were non-significant, except for the PROBATIME variable, $F(1,510) = 5.54.902$, $p < .05$.

Evaluator's mindset groups

The Levene's tests showed that all instances were non-significant.

In sum, the data showed homoscedasticity in all of the dependent variables except for PROBATIME (for detailed statistics see Appendix H).

Correlated errors

In order to identify and reduce the correlated errors, the blatant and subtle hiring discrimination scores were tested against the participants' demographic variables. Details of the analyses are presented in Appendix H.

For the age of the respondents, a regression analysis was used. The results of the analysis indicated that age significantly predicted PROBANEED. Thus age was included in the analysis as a covariate for PROBANEED.

One-way ANOVA was used to test for differences in the dependent variables among educational level, faculties, and AEC familiarity. The analyses showed that there were significant differences between the following groups.

- There were differences between genders for PROBATIME. Thus GENDER was included as a covariate for PROBATIME.
- There were differences between knowing and not knowing someone from the AEC for SLR-DISCRIM. Thus AECFAMILIAR was included as a covariate for SLR-DISCRIM.
- There were differences between the participants that studied in different faculties for PROBANEED and PROBATIME. Since the faculty variable was a categorical variable with five groups, five separate variables were created and each group was coded using an indicator coding. One-way ANOVA was used to test for the differences of each faculty group. The differences were identified for BIZ (participants that studied in the business, economics, and finance faculties versus other faculties) for PROBENEED and PROBETIME; SOC (social science faculties versus other faculties) for PROBANEED; HUMAN (humanities faculties versus other faculties) for PROBATIME; and INDUS (industrial and technology faculties versus other faculties) for PROBATIME.

Linearity

Scatterplots were used to examine the relationship pattern between the variables. The scatterplots are presented in Appendix H.

Main discrimination model

SUBTLE versus PJDSDS, and SUBTLE versus REC-DISCRIM, had cases that were aligned in a linear pattern. On the other hand, the scatter plots showed that SS had a random distribution pattern with other variables, which indicated a low correlation. However, a nonlinear relationship was identified; thus the data were acceptable for the path analysis.

Probation discrimination model

Although the scatter plots did not show a well-defined linear pattern, no nonlinear relationship was identified, and thus data were acceptable for path analysis.

Part 3: Manipulation checks for Study 2

Evaluators' mindset manipulation check

One-way ANOVA was conducted to compare the level of threat posed by the candidate's country. The respondents under the competition condition (M = 3.59, SD = 1.40) rated the level of threat higher than the cooperative condition (M = 3.33, SD = 1.42; $F(1,520) = 4.27$, $p < .05$).

Competence manipulation check

The participants were asked to rate how they perceived citizens from the manipulated country on a competence rating and a warmth rating. An ANOVA of 2 (Competence: high, low) × 2 (Warmth: high, low) showed that the manipulation was successful. There was a main effect of the competence stereotype on the competence scale, $F(1,510) = 83.49$, $p < .001$. Thai participants perceived that people from Singapore and Malaysia were more competent than people from Laos and Myanmar (high competence condition M = 5.13, SD = .93; low competence condition M = 4.31, SD = 1.11).

Warmth manipulation check

There was also a main effect of the warmth stereotype on the warmth scale, $F(1,510) = 41.08$, $p < .001$. Thai participants perceived that people from Singapore and Laos were warmer than people from Malaysia and Myanmar (high warmth condition M = 4.63, SD = .99; low warmth condition M = 4.06, SD = 1.03).

However, there was also a statistically-significant difference in the competence rating between the respondents in the high competence and low competence condition, $F(1,520) = 6.17$, $p < .05$. The participants perceived that people from Singapore and Laos were more competent than people from Malaysia and Myanmar (high warmth condition $M = 4.83$, $SD = 1.08$; low warmth condition $M = 4.60$, $SD = 1.11$). This significant competence rating among the high warmth and low warmth conditions was caused by the participant's extreme competence rating score for the Singapore people (Singapore $M = 5.34$, $SD = .89$; Malaysia $M = 4.93$, $SD = .93$; Laos $M = 4.34$, $SD = 1.03$, Myanmar $M = 4.27$, $SD = 1.18$).

From the analyses, it can be concluded that the manipulation of the competence and warmth stereotypes, and the evaluators' mindset, was successful, although the limitations regarding the low warmth manipulation effect size and the extreme competence rating for Singapore should be noted.

Part 4: Descriptive statistics for Study 2 variables

Correlations among variables

Bivariate correlations were used to analyse the relationships between all of the variables. The full correlations metric for Study 2 variables is presented in Table 31. There were 41 pairs that were significantly correlated at the .01 level. Their correlation coefficients were between -.12 to.65. All of them were lower than .80; thus the data did not have a multicolinearity issue.

<u>Correlations among dependent variables</u>

Recommendation discrimination was positively correlated with salary discrimination (r = .22, p < .01), subtle hiring discrimination (r = .41, p < .01), and prejudice level (r = .28, p < .01). The results indicated that the participants' tendency to recommend, assign a salary level, rate the candidate on the subtle hiring discrimination scale, and prejudice level had the same direction.

Salary discrimination was positively correlated with probation placement discrimination (r = .14, p < .01), subtle hiring discrimination (r = .14, p < .01), and the stringent evaluation standard (r = .09, p < .05). The results showed that the participants that gave a lower starting salary to the candidate tended to rate the candidate poorly on career related items, and also viewed that probation was needed for that candidate.

Probation time discrimination was the only hiring discrimination variable that had a significant negative correlation with other hiring discrimination item; i.e. salary discrimination (r = -.12, p < .01). The participants that assigned a lower starting salary tended to put the candidate on shorter probation time.

Correlations among independent and dependent variables

The *c*ompetence stereotype was positively correlated with recommendation discrimination ($r = .38$, $p < .01$), salary discrimination ($r = .13$, $p < .01$), subtle hiring discrimination ($r = .14$, $p < .01$), probation time discrimination ($r = .13$, $p < .01$), and the perceivers' prejudice level ($r = .25$, $p < .01$), but not probation placement discrimination ($r = .07$, *ns*) or stringent evaluation standard ($r = -.03$, *ns*).

On the other hand, the warmth stereotype was positively correlated with the perceivers' prejudice level ($r = .23$, $p < .01$) only, while the evaluators' mindset did not correlate with any of the dependent variables.

Table 31

Correlations, Means, Standard Deviations, and Score Ranges of Study 2 Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. COMPETENCE	-														
2. WARMTH	.00	-													
3. MINDSET	.00	.00	-												
4. CxW	.58**	.58**	.00	-											
5. CxM	.58**	.00	.58**	.33**	-										
6. WxM	.00	.58**	.58**	.33**	.33**	-									
7. CxWxM	.38**	.38**	.38**	.65**	.65**	.65**	-								
8. REC-DISCRIM	.13**	.08	-.04	.14**	.03	.02	.05	-							
9. SLR-DISCRIM	.12**	-.01	.00	.01	.05	.01	.00	.22**	-						
10. SUBTLE	.14**	.05	-.04	.12**	.02	.00	.03	.41**	.22**	-					
11. PROBANEED	.07	.03	-.01	.06	.02	-.01	.03	.02	.14**	.04	-				
12. PROBATIME	.13**	.05	.03	.13**	.08	.05	.09*	.08	-.12**	.13**	.20**	-			
13. SS	-.03	-.03	.04	-.05	.01	.03	.00	-.03	.09*	.00	.13**	-.02	-		
14. PJDSDS	.25**	.23**	-.03	.33**	.15**	.17**	.25**	.28**	.08	.35**	-.04	.15**	.01	-	
15. AECFAMILEAR	.00	.05	-.02	.05	-.05	-.01	-.03	-.07	.10*	-.08	.04	.06	.03	-.18**	-
M	.50	.50	.50	.25	.25	.25	.13	2.67	4.88	2.73	4.80	2.44	3.86	3.06	.51
SD	.50	.50	.50	.43	.43	.43	.33	1.03	1.68	.82	1.47	1.52	2.32	.99	.50
Score range	0-1	0-1	0-1	0-1	0-1	0-1	0-1	1-7	1-7	1-7	1-7	1-7	0-8	1-7	0-1

* $p < .05$, ** $p < .01$ (2-tailed).

Means and standard deviations by mindset manipulation groups

Recommendation discrimination among mindset manipulation groups

The cooperative condition (*M* = 2.72, *SD* = 1.09) exhibited a higher recommendation discrimination score than the competitive condition (*M* = 2.63, *SD* = 0.97). However, post hoc analysis showed no statistical differences between the two conditions.

Salary discrimination among mindset manipulation groups

The cooperative condition (*M* = 4.88, *SD* = 1.67) exhibited a salary discrimination score equal to the competitive condition score (*M* = 4.88, *SD* = 1.70). However, post hoc analysis confirmed that there was no statistical difference between the two conditions.

Subtle hiring discrimination among mindset manipulation groups

The cooperative condition (*M* = 2.77, *SD* = 0.83) showed a higher subtle hiring discrimination score than the competitive condition (*M* = 2.70, *SD* = 0.80). However, post hoc analysis showed no statistical difference between the two conditions.

Probation placement discrimination among mindset manipulation groups

The cooperative condition (*M* = 4.81, *SD* = 1.44) exhibited a higher probation placement discrimination score than the competitive condition (*M* = 4.79, *SD* = 1.50). However, post hoc analysis showed no statistical differences between the two conditions.

Probation time discrimination among mindset manipulation groups

The competitive condition (*M* = 2.48, *SD* = 1.56) showed a higher probation time discrimination score than the cooperative condition (*M* = 2.39, *SD* = 1.48). However, post hoc analysis showed no statistical differences between the two conditions.

Stringent evaluation standard among mindset manipulation groups

The competitive condition (*M* = 3.77, *SD* = 2.31) had a higher stringent evaluation standard score than the cooperative condition (*M* = 3.94, *SD* = 2.34). However, post hoc analysis showed no statistical differences between the two conditions. The means and standard deviations are presented in Table 32.

Means and standard deviations by country

Recommendation discrimination among 4 AEC countries

The Singapore candidate had the lowest recommendation discrimination score (*M* = 2.48, *SD* = 1.02) while the Myanmar candidate had the highest recommendation discrimination score (*M* = 2.92, *SD* = 1.08). Post hoc analysis also confirmed the statistical differences between the ratings of Singapore and Myanmar candidates.

Salary discrimination among 4 AEC countries

The Singapore candidate had the lowest salary discrimination score (*M* = 4.55, *SD* = 1.70) while the Laos candidate had the highest salary discrimination score (*M* = 5.23, *SD* = 1.56). Post hoc analysis also confirmed the statistical differences between the ratings of Singapore and Laos candidates.

Subtle hiring discrimination among 4 AEC countries

The Singapore candidate had the lowest subtle hiring discrimination score (*M* = 2.61, *SD* = .85) while the Myanmar candidate had the highest subtle hiring discrimination score (*M* = 2.91, *SD* = .83). Post hoc analysis also confirmed the statistical differences between the rating of Singapore and Myanmar candidates. In addition, post hoc analysis also showed that the Malaysia candidate's subtle hiring discrimination score (*M* = 2.64, *SD* = .80) was also significantly lower than that for the Myanmar candidate.

Probation placement discrimination among 4 AEC countries

The Singapore candidate had the lowest probation placement discrimination score (*M* = 4.64, *SD* = 1.54) while the Myanmar candidate had the highest probation placement discrimination score (*M* = 4.95, *SD* = 1.50). However, post hoc analysis showed no statistical differences between the 4 AEC countries.

Probation time discrimination among 4 AEC countries

The Malaysia candidate had the lowest probation time discrimination score (*M* = 2.24, *SD* = 1.53) while the Myanmar candidate had the highest probation time discrimination score (*M* = 2.78, *SD* = 1.63). Post hoc analysis also confirmed the statistical differences between the rating of Malaysia and Myanmar candidates. In addition, post hoc analysis also showed that the Malaysia candidate's score (*M* = 2.25, *SD* = 1.41) was also significantly lower than that for the Myanmar candidate.

Stringent evaluation standard among 4 AEC countries

The Singapore (*M* = 3.93, *SD* = 2.34) and Malaysia candidates (*M* = 3.93, *SD* = 2.34) had the highest score for the stringent evaluation standard, while the Myanmar candidate had the lowest score (*M* = 3.66, *SD* = 2.46). However, post hoc analysis showed no statistical differences between the 4 AEC countries.

The means and standard deviations are presented in Table 33. The means analyses showed that among the 4 AEC countries with different stereotype content combinations, the candidate from Singapore which had the HC-HW stereotype had the lowest score for all hiring discrimination measures. The candidate from Myanmar that represented the LC-LW stereotype had the highest discrimination scores for the recommendation discrimination, subtle hiring discrimination, and two probation measures. However, the candidate that had the highest salary discrimination (i.e. received the lowest starting salary) was the candidate from Laos which had the LC-HW stereotype.

Table 32

Means and Standard Deviations of Dependent Variables by Mindset Manipulation Groups and Bonferroni Post Hoc Test

Measure	Cooperative [1]	Competitive [2]	Post hoc
	M (*SD*)	*M* (*SD*)	
REC-DISCRIM	2.72 (1.09)	2.63 (0.97)	n/a
SLR-DISCRIM	4.88 (1.67)	4.88 (1.70)	n/a
SUBTLE	2.77 (0.83)	2.70 (0.80)	n/a
PROBANEED	4.81 (1.44)	4.79 (1.50)	n/a
PROBATIME	2.39 (1.48)	2.48 (1.56)	n/a
SS	3.77 (2.31)	3.94 (2.34)	n/a

Note. The numbers in square brackets in the column heads refer to the numbers used for illustrating significant differences in the "Post hoc" column. n/a = overall ANOVA test was not significant—thus the post hoc test was not carried out.

Table 33

Means and Standard Deviations of Dependent Variables by Stereotype Groups and Bonferroni Post Hoc Test

Measure	Singapore [1]	Malaysia [2]	Laos [3]	Myanmar [4]	Post hoc
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	
REC-DISCRIM	2.48 (1.02)	2.59 (0.96)	2.70 (1.03)	2.92 (1.08)	1 < 4
SLR-DISCRIM	4.55 (1.70)	4.81 (1.68)	5.23 (1.56)	4.91 (1.74)	1 < 3
SUBTLE	2.61 (0.85)	2.64 (0.80)	2.79 (0.77)	2.91 (0.83)	1 < 4, 2 < 4
PROBANEED	4.64 (1.54)	4.73 (1.44)	4.87 (1.39)	4.95 (1.50)	n/a
PROBATIME	2.25 (1.41)	2.24 (1.53)	2.48 (1.46)	2.78 (1.63)	1 < 4, 2 < 4
SS	3.93 (2.34)	3.93 (2.34)	3.91 (2.15)	3.66 (2.46)	n/a

Note. The numbers in square brackets in the column heads refer to the numbers used for illustrating significant differences in the "Post hoc" column. n/a = overall ANOVA test was not significant—thus the post hoc test was not carried out

Part 5: Path analysis results from Study 2 main model (Model 4)

This section presents the results from Model 4, which is the main analysis model that used recommendation discrimination, salary discrimination, and subtle hiring discrimination as the dependent variables; and used prejudice as a controlled variable. The analysis model was analysed from PRELIS data, and the model consisted of 7 independent variables, 3 dependent variables, 1 mediator, and 2 covariates. The total samples for the analysis were 512. Standardized parameter estimates are provided in Figure 16.

Fit indices

Overall fit

Model 4 had χ^2 = 100.19, df = 7, N = 512, p < .001, which indicated that the observed covariance matric did not fit the estimated covariance matric.

Absolute fit indices

The value for GFI was .97, which was higher than the guideline of .90 (Hair et al., 2010), indicating a good fit. The normed χ^2 (χ^2/df) was 14.31, which was higher than the range of 2 to 5 and was considered a poor fit. RMSEA was .16, which was higher than the Hair et al. (2010) guideline of .04 and was considered a poor fit. The SRMR was .04, which was lower than the conservative value of .05 and indicated a good fit. Thus, out of 4 absolute fit indices, 2 indicated that the model had a good fit.

Incremental fit index

The CFI was .97, which was equal to the cut-off criterion of .97 (Hair et al., 2010) and was considered an acceptable fit.

Standardized residual

The largest standardized residual was 6.9, which was higher than the cut off criterion of 2. The larges modification indices suggested a relationship between REC-DSICRIM and SUBTLE since REC-DISCRIM and SUBTLE were the highest correlated pairs among all the dependent variables ($r = .41$, $p < .01$).

Summary and sources of poor fit

The fit indices indicated that Model 4 had an adequate fit since the model passed 2 out of 4 absolute fit indices, and passed the incremental fit index. The main source of poor fit was from the large standardized residual between recommendation discrimination and subtle hiring discrimination as indicated in the largest standardized residual report. However, no adjustment was made to the model because this study aimed to test that the hypothesis that the blatant hiring discrimination and subtle hiring discrimination were separate constructs.

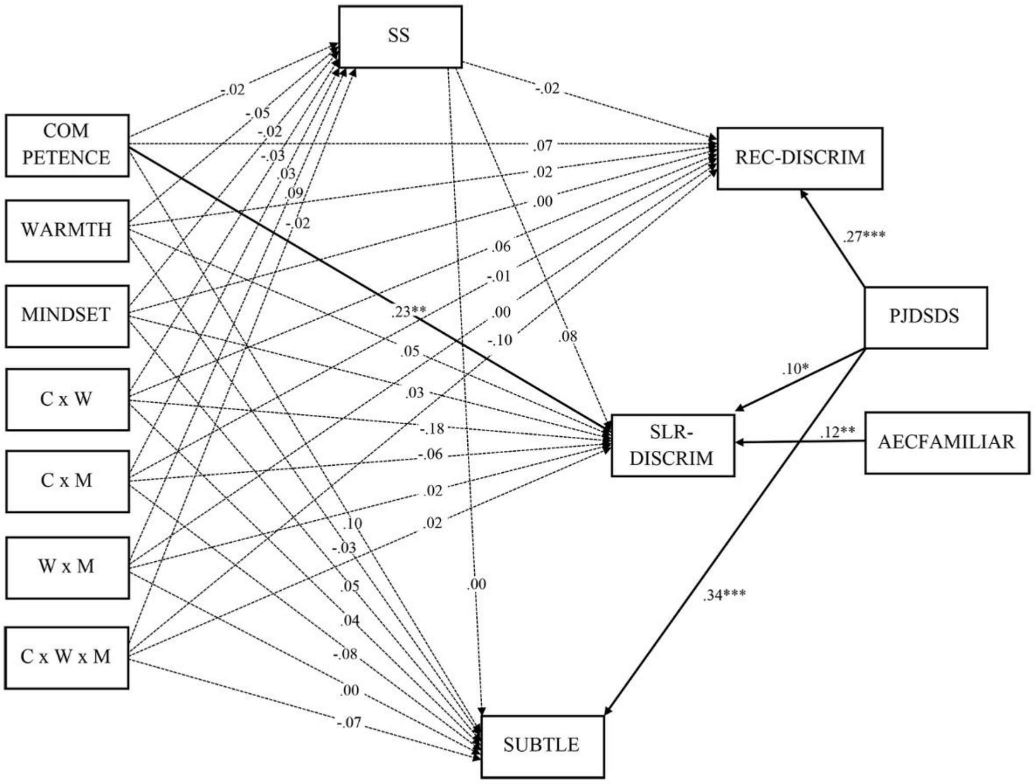

Figure 16. *The standardized coefficients for Study 2 main model (Model 4). Chi-square (7, N = 512) = 100.19, p < .001, GFI = .97, RMR = .05, standardized RMR = .04, RMSEA = .16, CFI = .97. Statistically significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. *p < .05. **p < .01. ***p < .001.*

Table 34

Direct, Indirect, and Total Effects on Dependent Variables of Model 4

Variable		REC-DISCRIM			SLR-DISCRIM			SUBTLE			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.07	.00	.07	.23**	.00	.23**	.10	.00	.10	-.02	-	-.02
	b	.15	.00	.15	.77**	-.01	.76**	.17	.00	.17	-.09	-	-.09
	SE	.18	.01	.18	.29	.03	.29	.14	.00	.14	.41	-	.41
	t	.83	.21	.84	2.62	-.23	2.61	1.22	-.05	1.23	-.23	-	-.23
WARM-TH	β	.02	.00	.02	.05	-.01	.05	-.03	.00	-.03	-.05	-	-.05
	b	.04	.00	.04	.18	-.02	.17	-.05	.00	-.05	-.25	-	-.25
	SE	.18	.01	.17	.29	.03	.29	.14	.00	.14	.41	-	.41
	t	.20	.42	.22	.62	-.58	.57	-.34	-.05	-.34	-.61	-	-.61
MIND-SET	β	.00	.00	.01	.03	.00	.03	.05	.00	.05	-.02	-	-.02
	b	.01	.00	.01	.09	-.01	.09	.07	.00	.07	-.11	-	-.11
	SE	.18	.01	.18	.29	.03	.29	.14	.00	.14	.41	-	.41
	t	.05	.24	.06	.32	-.27	.29	.55	-.05	.55	-.27	-	-.27
CxW	β	.06	.00	.07	-.18	.00	-.18	.04	.00	.04	-.03	-	-.03
	b	.15	.00	.16	-.70	-.01	-.71	.08	.00	.08	-.17	-	-.17
	SE	.25	.01	.25	.42	.04	.41	.19	.00	.19	.58	-	.58
	t	.62	.26	.63	-1.68	-.29	-1.71	.42	-.05	.42	-.30	-	-.30
CxM	β	-.01	.00	-.01	-.06	.00	-.06	-.08	.00	-.08	.03	-	.03
	b	-.02	.00	-.02	-.25	.01	-.24	-.16	.00	-.16	.14	-	.14
	SE	.25	.01	.25	.41	.04	.41	.19	.00	.19	.58	-	.58
	t	-.07	-.22	-.08	-.61	.24	-.59	-.81	.05	-.82	.24	-	.24
WxM	β	.00	.00	.00	.02	.01	.02	.00	.00	.00	.09	-	.09
	b	.01	-.01	.01	.05	.03	.08	.00	.00	.00	.50	-	.50
	SE	.25	.01	.25	.42	.04	.41	.19	.01	.19	.58	-	.58
	t	.06	-.48	.04	.12	.79	.20	-.02	.05	-.02	.86	-	.87
CxWxM	β	-.10	.00	-.10	.02	.00	.02	-.07	.00	-.07	-.02	-	-.02
	b	-.30	.00	-.30	.09	-.01	.08	-.18	.00	-.18	-.16	-	-.16
	SE	.35	.01	.35	.59	.05	.58	.27	.00	.27	.83	-	.82
	t	-.87	.18	-.87	.15	-.19	.13	-.65	-.05	-.66	-.19	-	-.19
SS	β	-.02	-	-.02	.08	-	.09	.00	-	.00	-	-	-
	b	-.01	-	-.01	.06	-	.06	.00	-	.00	-	-	-
	SE	.02	-	.02	.03	-	.03	.02	-	.02	-	-	-
	t	-.57	-	-.58	1.94	-	1.96	.05	-	.05	-	-	-
PJDSDS	β	.27***	-	.27***	.10*	-	.10*	.34***	-	.34***	-	-	-
	b	.28***	-	.28***	.16*	-	.16*	.28***	-	.28***	-	-	-
	SE	.05	-	.05	.08	-	.08	.04	-	.04	-	-	-
	t	5.82	-	5.87	2.01	-	2.03	7.71	-	7.78	-	-	-
AEC FAMI-LIAR	β	-	-	-	.12**		.12**	-	-	-	-	-	-
	b	-	-	-	.41**	-	.41**	-	-	-	-	-	-
	SE	-	-	-	.15	-	.15	-	-	-	-	-	-
	t	-	-	-	2.71	-	2.74	-	-	-	-	-	-
R^2			.10			.04			.13			.01	

Chi-square (7, *N* = 512) = 100.19, *p* < .001, GFI = .97, RMR = .05, standardized RMR = .04, RMSEA = .16, CFI = .97.

**p* < .05. ***p* < .01. ****p* < .001.

The effects on recommendation discrimination

The path analysis results showed that there was no significant total effect from the competence stereotype (β = .07, *ns*), the warmth stereotype (β = .02, *ns*), the evaluators' mindset (β = .01, *ns*), CxW (β = .07, *ns*), CxM (β = -.01, *ns*), WxM (β = .01, *ns*), or CxWxM (β = -.10, *ns*) on recommendation discrimination when controlling for prejudice level.

The non-significant total effect from the evaluator's mindset on recommendation discrimination (β = .01, *ns*) indicated that the evaluator's mindset did not have a significant effect on recommendation discrimination, when the competence and warmth stereotypes were high (i.e. the comparison done at the reference group, which was the Singapore condition), and prejudice was controlled for. The highly-competent candidate from Singapore had an equal chance to be recommended by the participants under the cooperative compared to the competitive condition when the perceivers' level of prejudice was controlled for. This result did not support H2.1a.

Contrary to the hypothesis, the means analysis revealed that participants that read the cooperative AEC article (cooperative mindset) gave a slightly higher recommendation discrimination score compared to the participants that read the competitive AEC article (competitive mindset), although the effect was not statistically qualified.

The non-significant total effect from the competence stereotype on recommendation discrimination (β = .07, *ns*) indicated that the competence stereotype did not have a significant effect on recommendation discrimination, when the warmth stereotype was high, the evaluators had a cooperative mindset, and prejudice was controlled for. The highly-competent candidates from Singapore and Laos had equal chance to be recommended when the perceivers' level of prejudice was controlled for. This result did not support H2.2a.

The non-significant total effect from the warmth stereotype on recommendation discrimination (β = .02, *ns*) indicated that the warmth stereotype did not have a significant effect on recommendation discrimination, when the competence stereotype was high, and the evaluators had a cooperative mindset and prejudice was controlled for. The highly-competent candidates from Singapore and Malaysia had an equal chance to be recommended when the perceivers' level of prejudice was controlled for. This result did not support H2.3a.

The non-significant total effect from the interactions between the warmth stereotype, the competence stereotype, and the evaluator mindset on recommendation discrimination CxW (β = .07, *ns*), CxM (β = -.01, *ns*), WxM (β = .00, *ns*), or CxWxM (β = -.10, *ns*) indicated that, when prejudice was controlled for, the following obtained:

- The effect of the competence stereotype did not vary by the warmth stereotype or the evaluators' mindset;
- The effect of the warmth stereotype also did not vary by the competence stereotype or the evaluators' mindset;
- The effect of the evaluator mindset did not vary by the warmth stereotype or the competence stereotype.

The non-significant total effect from CxM and WxM showed that the evaluators' cooperative mindset did not affect the participants' recommendation discrimination, nor did the competitive mindset increase the participants' recommendation discrimination.

This study also hypothesized a three-way interaction effect—that the effect of discrimination would be higher toward the candidate from Malaysia (i.e. the HC-LW stereotyped country) than other countries when the participants had a competitive mindset, i.e. the scapegoating effect (Glick, 2005), and that the effect of discrimination would be lowest toward the candidate from Laos (i.e. the LC-HW stereotyped country) than other countries when the participants were under a cooperative mindset, i.e. received the most pity under cooperation. The results demonstrated that neither effect was evident via the recommendation discrimination measure.

From the path analysis it can be concluded that H2.4a, H2.5a, H2.6a, and H2.7a were not supported.

The effects on salary discrimination

The path analysis revealed that the competence stereotype had a significant positive total effect on salary discrimination ($\beta = .23$, $p < .01$). The participants gave a significantly lower starting salary to the highly-competent candidates from the low competence stereotyped countries compared to candidates from the high competence stereotyped countries when the warmth stereotype was high, the evaluators had a cooperative mindset, and the perceivers' level of prejudice and familiarity with AEC citizens were controlled. In other words, the highly-competent candidate from Laos was given a lower starting salary than his counterparts from Singapore when controlling for the perceivers' level of prejudice and the evaluators had a cooperative mindset. Thus H2.2b was supported.

However, there was no significant total effect from the warmth stereotype (β = .05, *ns*), the evaluators' mindset (β = .03, *ns*), CxW (β = -.18, *ns*), CxM (β = -.06, *ns*), WxM (β = .02, *ns*), or CxWxM (β = .02, *ns*) on salary discrimination when controlling for prejudice level and familiarity with AEC citizens.

The non-significant total effect from the evaluator's mindset on salary discrimination (β = .03, *ns*) indicated that the evaluator's mindset did not have a significant effect on salary discrimination, when the competence and warmth stereotypes were high, and prejudice and AEC familiarity were controlled for. The participants under cooperative mindset compared to competitive mindset condition gave an equal starting salary rating to the highly-competent candidate from Singapore when controlling for the perceivers' level of prejudice and AEC familiarity. This result did not support H2.1b.

The non-significant total effect from the warmth stereotype on salary discrimination (β = .05, *ns*) indicated that the warmth stereotype did not have a significant effect on salary discrimination, when the competence stereotype was high, and the evaluators had a cooperative mindset, and prejudice and AEC familiarity were controlled for. The highly-competent candidate from Singapore and Malaysia received an equal starting salary rating when the perceivers' level of prejudice and AEC familiarity were controlled for. This result did not support H2.3b.

The non-significant total effect from the interactions between the warmth stereotype, the competence stereotype, and the evaluator's mindset on salary discrimination, i.e. CxW (β = -.18, *ns*), CxM (β = -.06, *ns*), WxM (β = .02, *ns*), or CxWxM (β = .02, *ns*), indicated that when prejudice was controlled for, the following obtained:

- The effect of the competence stereotype did not vary by the warmth stereotype or the evaluators' mindset;
- The effect of the warmth stereotype also did not vary by the competence stereotype or the evaluators' mindset;
- The effect of the evaluator mindset did not vary by the warmth stereotype or the competence stereotype.

The non-significant total effect from CxM and WxM showed that the evaluators' cooperative mindset did not affect the participants' salary discrimination nor did the competitive mindset increase the participants' salary discrimination. The results also showed that the three-way interaction effect hypothesis was not supported. Thus H2.4b, H2.5b, H2.6b, and H2.7b were not supported.

The effects on subtle hiring discrimination

There was no significant total effect from the competence stereotype (β = .10, *ns*), warmth stereotype (β = -.03, *ns*), evaluators' mindset (β = .05, *ns*), CxW (β = .04, *ns*), CxM (β = -.08, *ns*), WxM (β = .00, *ns*), or CxWxM (β = -.07, *ns*) on subtle hiring discrimination, when controlling for prejudice level.

The non-significant total effect from the evaluator's mindset on subtle discrimination (β = .05, *ns*) indicated that the evaluator's mindset did not have a significant effect on subtle discrimination, when the competence and warmth stereotypes were high, and prejudice was controlled for. The highly-competent candidate from the Singapore had an equal chance to be subtlety discriminated against by the participants under the cooperative compared to the competitive condition when the perceivers' level of prejudice was controlled for. This result did not support H2.1c.

The non-significant total effect from the competence stereotype on subtle hiring discrimination (β = .10, *ns*) indicated that the competence stereotype did not have a significant effect on subtle hiring discrimination, when the warmth stereotype was high, and the evaluators had a cooperative mindset and prejudice was controlled for. The highly-competent candidates from Singapore and Laos had an equal chance to be subtlety discriminated against when the perceivers' level of prejudice was controlled for. This result did not support H2.2c.

The non-significant total effect from the warmth stereotype on subtle hiring discrimination (β = -.03, *ns*) indicated that the warmth stereotype did not have a significant effect on subtle hiring discrimination, when the competence stereotype was high, and the evaluators had a cooperative mindset and prejudice was controlled for. The highly-competent candidates from Singapore and Malaysia had an equal chance to be subtlety discriminated against when the perceivers' level of prejudice was controlled for. This result did not support H2.3c.

The non-significant total effect from the interactions among the warmth stereotype, the competence stereotype, and the evaluators' mindset on subtle hiring discrimination CxW (β = .04, *ns*), CxM (β = -.08, *ns*), WxM (β = .00, *ns*), or CxWxM (β = -.07, *ns*) indicated that, when prejudice was controlled for, the following obtained:

- The effect of the competence stereotype did not vary by the warmth stereotype or the evaluators' mindset;
- The effect of the warmth stereotype also did not vary by the competence stereotype or the evaluators' mindset;
- The effect of the evaluator's mindset did not vary by the warmth stereotype or the competence stereotype.

In sum, these results did not support H2.4c, H2.5c, H2.6c, or H2.7c.

Mediating effect of stringent evaluation standard

<u>Mediating effect on recommendation discrimination</u>

The mediation analysis revealed that the stringent evaluation standard did not mediate any of the effects of independent variables on recommendation discrimination.

First, there was no significant direct effect from the competence stereotype (β = -.02, *ns*), the warmth stereotype (β = -.05, *ns*), the evaluators' mindset (β = -.02, *ns*), CxW (β = -.03, *ns*), CxM (β = .03, *ns*), WxM (β = .09, *ns*), or CxWxM (β = -.02, *ns*) on the stringent evaluation standard, and the stringent evaluation standard did not have a significant direct effect on recommendation discrimination (β = -.02, *ns*).

Second, when controlling for the stringent evaluation standard, the effects from all independent variables on recommendation discrimination did not significantly reduced.

Finally, there was no significant indirect effect from the competence stereotype (β = .00, *ns*), the warmth stereotype (β = .00, *ns*), the evaluators' mindset (β = .00, *ns*), CxW (β = .00, *ns*), CxM (β = .00, *ns*), WxM (β = .00, *ns*), or CxWxM (β = .00, *ns*) on recommendation discrimination via the stringent evaluation standard when controlling for prejudice level.

Mediating effect on salary discrimination

The mediation analysis revealed that the stringent evaluation standard did not mediate any of the effects of independent variables on salary discrimination.

First, the stringent evaluation standard did not have a significant direct effect on salary discrimination (β = .08, *ns*).

Second, when controlling for the stringent evaluation standard, the effects from all independent variables on salary discrimination did not significantly reduced.

Finally, there was no significant indirect effect from the competence stereotype (β = .00, *ns*), the warmth stereotype (β = -.01, *ns*), the evaluators' mindset (β = .00, *ns*), CxW (β = .00, *ns*), CxM (β = .00, *ns*), WxM (β = .01, *ns*), or CxWxM (β = .00, *ns*) on salary discrimination via the stringent evaluation standard when controlling for prejudice level and AEC familiarity.

Mediating effect on subtle hiring discrimination

Finally, the mediation analysis also showed that the stringent evaluation standard did not mediate any of the effects of independent variables on subtle hiring discrimination.

First, the stringent evaluation standard did not have a significant direct effect on subtle hiring discrimination (β = .00, *ns*).

Second, when controlling for the stringent evaluation standard, the effects from all independent variables on subtle hiring discrimination did not significantly reduced.

Finally, there was no significant indirect effect from the competence stereotype (β = .00, *ns*), warmth stereotype (β = .00, *ns*), evaluators' mindset (β = .00, *ns*), CxW (β = .00, *ns*), CxM (β = .00, *ns*), WxM (β = .00, *ns*), or CxWxM (β = .00, *ns*) on subtle hiring discrimination via the stringent evaluation standard when controlling for prejudice level.

Thus it can be concluded that the stringent evaluation standard did not significantly mediate the effect of the independent variables on recommendation discrimination (H3a), salary discrimination (H3b), or subtle hiring discrimination (H3c) when controlling for prejudice level. These results did not support H3a, H3b, or H3c.

Part 6: Path analysis results for probation discrimination (Model 5)

This section presents the results specifically for the two items of probation discrimination (Model 5). The two probation items were analysed separately from the subtle discrimination model because of two main reasons. First, they showed low internal consistency with the subtle hiring discrimination scale. Second, both variables showed higher level of correlated errors due to respondent demographic and academic background compare to other dependent variables.

Model 5 was analysed from the PRELIS data, consisting of 7 independent variables, 2 dependent variables, 1 mediator, and 7 covariates. The total samples for the analysis were 512. Standardized parameter estimates are provided in Figure 17.

Fit indices

<u>Overall fit</u>

Model 5 had $\chi^2 = 47.86$, $df = 13$, $N = 512$, $p < .001$, which indicated that the observed covariance matric did not fit the estimated covariance matric.

<u>Absolute fit indices</u>

The value for GFI was .99, which was higher than the guideline of .90 (Hair et al., 2010), indicating good fit. The normed χ^2 (χ^2/df) was 3.68, which was within the rage of 2 to 5 and was considered a good fit. RMSEA was .07, which was lower than Hair et al. (2010) guideline of .08, indicating a good fit. The SRMR was .02, which was lower than the conservative value of .05. Thus all 4 indices indicated that the model had a good fit.

Incremental fit index

CFI was .99, which was higher than the cut-off threshold of .97 (Hair et al., 2010) and was considered a good fit.

Standardized residual

The largest standardized residual was 4.97, which was higher than the cut-off criterion of 2. The largest modification index was the relationship between PROBANEED and PROBATIME.

Summary of model fit

The fit indices indicated that Model 5 had a good fit since the model passed all absolute fit indices, and passed the incremental fit index. Thus no adjustment was made.

The effects on probation placement discrimination

The path analysis results showed that the competence stereotype had a significant positive total effect on probation placement discrimination ($\beta = .18$, $p < .05$) when controlling for prejudice and demographic covariates. In other words, the participants under cooperative mindset perceived that the highly-competent candidate from Laos should be in the probation program more than his counterparts from Singapore when the perceivers' level of prejudice and covariates were controlled for. Thus H2.2d was supported.

However, there was no significant total effect from the warmth stereotype ($\beta = .11$, *ns*), evaluators' mindset ($\beta = .10$, *ns*), CxW ($\beta = -.08$, *ns*), CxM ($\beta = -.15$, *ns*), WxM ($\beta = -.13$, *ns*), or CxWxM ($\beta = .13$, *ns*) on probation placement discrimination when controlling for prejudice level and demographic covariates.

Thus it can be concluded that H2.1d, H2.3d, H2.4d, H2.5d, H2.6d, and H2.7d were not supported.

The effects on probation time discrimination

There was no significant total effect from the competence stereotype (β = .08, *ns*), the warmth stereotype (β = -.02, *ns*), the evaluators' mindset (β = .05, *ns*), CxW (β = .06, *ns*), CxM (β = -.02, *ns*), WxM (β = .01, *ns*), or CxWxM (β = -.02, *ns*) on probation time discrimination when controlling for prejudice level and demographic covariates.

Thus it can be concluded that H2.1e, H2.2e, H2.3e, H2.4e, H2.5e, H2.6e, and H2.7e were not supported.

Mediating effect of stringent evaluation standard

<u>Mediating effect on probation placement discrimination</u>

The mediation analysis revealed that the stringent evaluation standard did not mediate any of the effects of independent variables on probation placement discrimination.

First, as mentioned before, there were no significant direct effects from any of the independent variable on the stringent evaluation standard.

Second, although the stringent evaluation standard had a significant direct effect on probation placement discrimination (β = .13, p <.01), when controlling for the stringent evaluation standard, the effects from all independent variables on probation placement discrimination did not significantly reduced.

Finally, and there was no significant indirect effect from the competence stereotype (β = .00, *ns*), the warmth stereotype (β = .01, *ns*), the evaluators' mindset (β = .00, *ns*), CxW (β = .00, *ns*), CxM (β = .00, *ns*), WxM (β = -.01, *ns*), or CxWxM (β = .00, *ns*) on probation placement discrimination, when controlling for prejudice level and demographic covariates.

In sum, the stringent evaluation standard did not significantly mediate the effect of the independent variables on probation placement discrimination when controlling for prejudice level and demographic covariates. Thus H3d was not supported.

Mediating effect on probation time discrimination

The mediation analysis revealed that the stringent evaluation standard did not mediate any of the effects of independent variables on probation time discrimination.

First, the stringent evaluation standard did not have a significant direct effect on probation time discrimination (β = -.01, *ns*).

Second, when controlling for the stringent evaluation standard, the effects from all independent variables on probation time discrimination did not significantly reduced.

Finally, there was no significant indirect effect from the competence stereotype (β = .00, *ns*), the warmth stereotype (β = .00, *ns*), the evaluators' mindset (β = .00, *ns*), CxW (β = .00, *ns*), CxM (β = .00, *ns*), WxM (β = .00, *ns*), or CxWxM (β = .00, *ns*) on probation time discrimination when controlling for prejudice level and demographic covariates.

In sum, the stringent evaluation standard did not significantly mediate the effect of the independent variables on probation time discrimination when controlling for prejudice level and demographic covariates. Thus H3e was not supported.

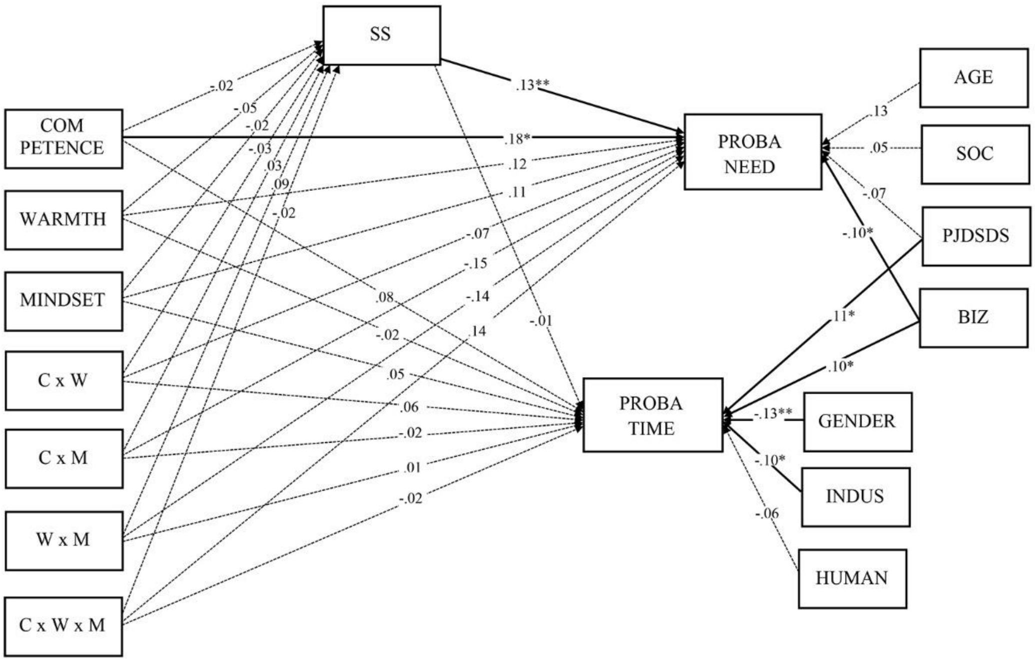

Figure 17. *The standardized coefficients for Study 2 probation model (Model 5). Chi-square (13, N = 512) = 47.86, p < .001, GFI = .99, RMR = .05, standardized RMR = .02, RMSEA = .07, CFI = .99. Statistically-significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. *p < .05. **p < .01. ***p < .001.*

Table 35

Direct, Indirect, and Total Effects on Dependent Variables of Model 5

Variables		PROBANEED			PROBATIME			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.18*	.00	.18*	.08	.00	.08	-.02	-	-.02
	b	.54*	-.01	.53*	.25	.00	.25	-.09	-	-.09
	SE	.26	.03	.26	.26	.00	.26	.42	-	.41
	t	2.12	-.23	2.07	.95	.15	.96	-.23	-	-.23
WARMTH	β	.12	-.01	.11	-.02	.00	-.02	-.05	-	-.05
	b	.35	-.02	.33	-.06	.00	-.05	-.25	-	-.25
	SE	.26	.03	.26	.26	.01	.26	.42	-	.41
	t	1.37	-.59	1.28	-.21	.19	-.21	-.60	-	-.60
MINDSET	β	.11	.00	.10	.05	.00	.05	-.02	-	-.02
	b	.31	-.01	.30	.15	.00	.15	-.11	-	-.11
	SE	.26	.03	.26	.26	.00	.26	.42	-	.41
	t	1.22	-.26	1.18	.58	.16	.58	-.26	-	-.26
CxW	β	-.07	.00	-.08	.06	.00	.06	-.03	-	-.03
	b	-.25	-.01	-.26	.21	.00	.21	-.17	-	-.17
	SE	.36	.05	.36	.37	.01	.37	.59	-	.59
	t	-.68	-.29	-.71	.57	.16	.58	-.29	-	-.29
CxM	β	-.15	.00	-.15	-.02	.00	-.02	.03	-	.03
	b	-.51	.01	-.50	-.08	.00	-.09	.14	-	.14
	SE	.36	.05	.36	.37	.01	.37	.59	-	.59
	t	-1.43	.24	-1.38	-.23	-.15	-.23	.24	-	.24
WxM	β	-.14	.01	-.13	.01	.00	.01	.09	-	.09
	b	-.47	.04	-.43	.05	.00	.05	.50	-	.50
	SE	.36	.05	.36	.37	.01	.37	.59	-	.59
	t	-1.31	.82	-1.19	.14	-.19	.13	.85	-	.85
CxWxM	β	.14	.00	.13	-.02	.00	-.02	-.02	-	-.02
	b	.60	-.01	.59	-.08	.00	-.08	-.16	-	-.16
	SE	.51	.07	.51	.52	.01	.52	.83	-	.83
	t	1.19	-.19	1.15	-.15	.14	-.15	-.19	-	-.19
SS	β	.13**	-	.13**	-.01	-	-.01	-	-	-
	b	.08**	-	.08**	-.01	-	-.01	-	-	-
	SE	.03	-	.03	.03	-	.03	-	-	-
	t	2.97	-	2.96	-.20	-	-.20	-	-	-
PJDSDS	β	-.07	-	-.07	.11*	-	.11*	-	-	-
	b	-.10	-	-.10	.17*	-	.17*	-	-	-
	SE	.07	-	.07	.07	-	.07	-	-	-
	t	-1.46	-	-1.46	2.41	-	2.41	-	-	-

(continued)

Variable		PROBANEED			PROBATIME			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
BIZ	β	-.10*	-	-.10*	.10*	-	.10*	-	-	-
	b	-.30*	-	-.30*	.32*	-	.32*	-	-	-
	SE	.15	-	.15	.15	-	.15	-	-	-
	t	-1.99	-	-1.99	2.10	-	2.09	-	-	-
AGE	β	.13**	-	.13**	-	-	-	-	-	-
	b	.10**	-	.10**	-	-	-	-	-	-
	SE	.03	-	.03	-	-	-	-	-	-
	t	2.87	-	2.88	-	-	-	-	-	-
SOC	β	.05	-	.05	-	-	-	-	-	-
	b	.15	-	.15	-	-	-	-	-	-
	SE	.17	-	.17	-	-	-	-	-	-
	t	.92	-	.92	-	-	-	-	-	-
GENDER	β	-	-	-	-.13**	-	-.13**	-	-	-
	b	-	-	-	-.44**	-	-.44**	-	-	-
	SE	-	-	-	.14	-	.14	-	-	-
	t	-	-	-	-3.05	-	-3.04	-	-	-
INDUS	β	-	-	-	-.10*	-	-.10*	-	-	-
	b	-	-	-	-.84*	-	-.84*	-	-	-
	SE	-	-	-	.39	-	.39	-	-	-
	t	-	-	-	-2.16	-	-2.16	-	-	-
HUMAN	β	-	-	-	-.06	-	-.06	-	-	-
	b	-	-	-	-.21	-	-.21	-	-	-
	SE	-	-	-	.18	-	.18	-	-	-
	t	-	-	-	-1.16	-	-1.16	-	-	-
R^2			.07			.08			.01	
Chi-square (13, *N* = 512) = 47.86, *p* < .001, GFI = .99, RMR = .05, standardized RMR = .02, RMSEA = .07, CFI = .99.										

*p < .05. **p < .01. ***p < .001.

Part 7: Alternative models for Study 2 (Model 6 and Model 7)

In Model 4 and 5, the participants' level of prejudice was used as a control variable. However, as identified in Study 1, the strong positive relationship among different measures of blatant hiring discrimination, subtle hiring discrimination, and prejudice suggested that prejudice was a part of the decision process.

Study 1 alternative models demonstrated that prejudice mediated the effects of warmth stereotype on blatant and subtle hiring discrimination. In order to test the generalization of the mediating effect of prejudice, two alternative models – Model 6 and Model 7 – were provided.

Model 6 showed results when prejudice was repositioned as a mediator of the competence stereotype, the warmth stereotype, the evaluators' mindset, and the interactions among the independent variables for recommendation discrimination, salary discrimination, and subtle hiring discrimination.

Model 7 offered a parsimonious approach to testing Study 2 hypothesis. Shortcomings from Model 4 and Model 6 were addressed to improve the model fit and the model's predictive power.

Model 6 – an alternative model for Study 2 when prejudice was a mediator

Model 6 was analysed from the PRELIS data, consisting of 7 independent variables, 3 dependent variables, 1 mediator, and 1 covariate. The total samples for the analysis were 512. This model was introduced to investigate the role of prejudice in mediating the effects of the independent variables on blatant and subtle hiring discrimination. The standardized coefficients of Model 6 are presented in Figure 18.

Fit indices

Overall fit

Model 6 had χ^2 = 119.99, *df* = 6, *N* = 512, *p* < .001, which indicated that the observed covariance matric did not fit the estimated covariance matrix.

Absolute fit indices

The value for GFI was .96, which was higher than guideline of .90, indicating a good fit. The normed χ^2 (χ^2/df) was 20.00, which was higher than the range of 2 to 5 and was considered a poor fit. RMSEA was .19, which was higher than the guideline of .04, indicating a poor fit. The SRMR was .05, which was equal to the conservative value of .05. Thus out of the 4 absolute fit indices, 2 of them indicated that the model had a good fit.

Incremental fit index

CFI was .96, which was lower than the cut-off model of .97 and was considered a poor fit.

Standardized residual

The largest standardized residual for Model 6 was 7.26, which was higher than cut off criterion of 2. The largest modification index was the relationship between REC-DSICRIM and SUBTLE since REC-DISCRIM and SUBTLE were the highest correlated pairs among all the dependent variables.

Summary of model fit

The fit indices indicated that Model 6 had a mediocre fit since the model passed 2 out of 4 absolute fit indices but did not pass the overall and incremental fit index. However, no adjustment was made to the model.

Mediating effect of prejudice on recommendation discrimination

The effect of competence stereotype

The mediation analysis revealed that prejudice did not mediate the effect of competence stereotypes on recommendation discrimination. The competence stereotype had a non-significant total effect on recommendation discrimination (TE $\beta = .11$, *ns*). The effect was reduced when controlling for prejudice (DE $\beta = .07$, *ns*); however, the indirect effect was non-significant (IE $\beta = .00$, *ns*).

The effect of warmth stereotype

The mediation analysis revealed that prejudice did not mediate the effect of warmth stereotypes on recommendation discrimination. The warmth stereotype had a non-significant total effect on recommendation discrimination (TE $\beta = .03$, *ns*). The effect was reduced when controlling for prejudice (DE $\beta = .02$, *ns*); however, the indirect effect was non-significant (IE $\beta = .01$, *ns*).

The effect of evaluator's mindset

The mediation analysis revealed that prejudice did not mediate the effect of evaluator's mindset on recommendation discrimination. The evaluator's mindset had a non-significant total effect on recommendation discrimination (TE $\beta = -.04$, *ns*). The effect was reduced to zero when controlling for prejudice (DE $\beta = .00$, *ns*); however, the indirect effect was non-significant (IE $\beta = -.04$, *ns*).

The interaction effects

The mediation analysis revealed that prejudice did not mediate any of the interaction effects between competence stereotype, warmth stereotype, and evaluator's mindset on recommendation discrimination as the indirect effect was not significant in any of the independent variables.

Thus it can be concluded that prejudice did not mediate the effects of any of the independent variables or their interactions on recommendation discrimination.

Mediating effect of prejudice on salary discrimination

The effect of competence stereotype

The mediation analysis revealed that prejudice did not mediate the effect of competence stereotypes on salary discrimination. The competence stereotype had a significant total effect on salary discrimination (TE $\beta = .24$, $p < .01$). The effect was reduced when controlling for prejudice (DE $\beta = .23$, $p < .05$); however, the indirect effect was non-significant (IE $\beta = .01$, *ns*).

The effect of warmth stereotype

The mediation analysis revealed that prejudice did not mediate the effect of warmth stereotypes on salary discrimination. The warmth stereotype had a non-significant total effect on r salary discrimination (TE $\beta = .05$, *ns*). The effect was not reduced when controlling for prejudice (DE $\beta = .05$, *ns*), and the indirect effect was not significant (IE $\beta = .00$, *ns*).

The effect of evaluator's mindset

The mediation analysis revealed that prejudice did not mediate the effect of evaluator's mindset on salary discrimination. The evaluator's mindset had a non-significant total effect on salary discrimination (TE $\beta = .01$, *ns*). The effect was increased when controlling for prejudice (DE β = .03, *ns*); however, the indirect effect was non-significant (IE β = -.02, *ns*).

<u>The interaction effects</u>

The mediation analysis revealed that prejudice did not mediate any of the interaction effects between competence stereotype, warmth stereotype, and evaluator's mindset on salary discrimination. The direct effects from interactions between independent variables were all not significant and their indirect effect was all not significant when controlling for prejudice.

Thus it can be concluded that prejudice did not mediate the effects of any of the independent variables or their interactions on salary discrimination.

Mediating effect of prejudice on subtle hiring discrimination

<u>The effect of competence stereotype</u>

The mediation analysis revealed that prejudice did not mediate the effect of competence stereotypes on subtle hiring discrimination. The competence stereotype had a non-significant total effect on subtle hiring discrimination (TE β = .15, *ns*). The effect was reduced when controlling for prejudice (DE β = .10, *ns*); however, the indirect effect was not significant (IE β = .05, *ns*).

<u>The effect of warmth stereotype</u>

The mediation analysis revealed that prejudice did not mediate the effect of warmth stereotypes on subtle hiring discrimination. The warmth stereotype had a non-significant total effect on r subtle hiring discrimination (TE β = -.01, *ns*). The effect was greater when controlling for prejudice (DE β = -.03, *ns*); however, the indirect effect was not significant (IE β = .02, *ns*).

The effect of evaluator’s mindset

The mediation analysis revealed that prejudice did not mediate the effect of evaluator’s mindset on subtle hiring discrimination. The evaluator’s mindset had a non-significant total effect on subtle hiring discrimination (TE β = -.01, *ns*). The direction of effect increased when controlling for prejudice (DE β = .05, *ns*); however, the indirect effect was non-significant (IE β = -.06, *ns*).

The interaction effects

The mediation analysis revealed that prejudice did not mediate any of the interaction effects between competence stereotype, warmth stereotype, and evaluator’s mindset on subtle hiring discrimination. The direct effects from interactions between independent variables were all not significant and their indirect effect was all not significant when controlling for prejudice.

Thus it can be concluded that prejudice did not mediate the effects of any of the independent variables or their interactions on subtle hiring discrimination.

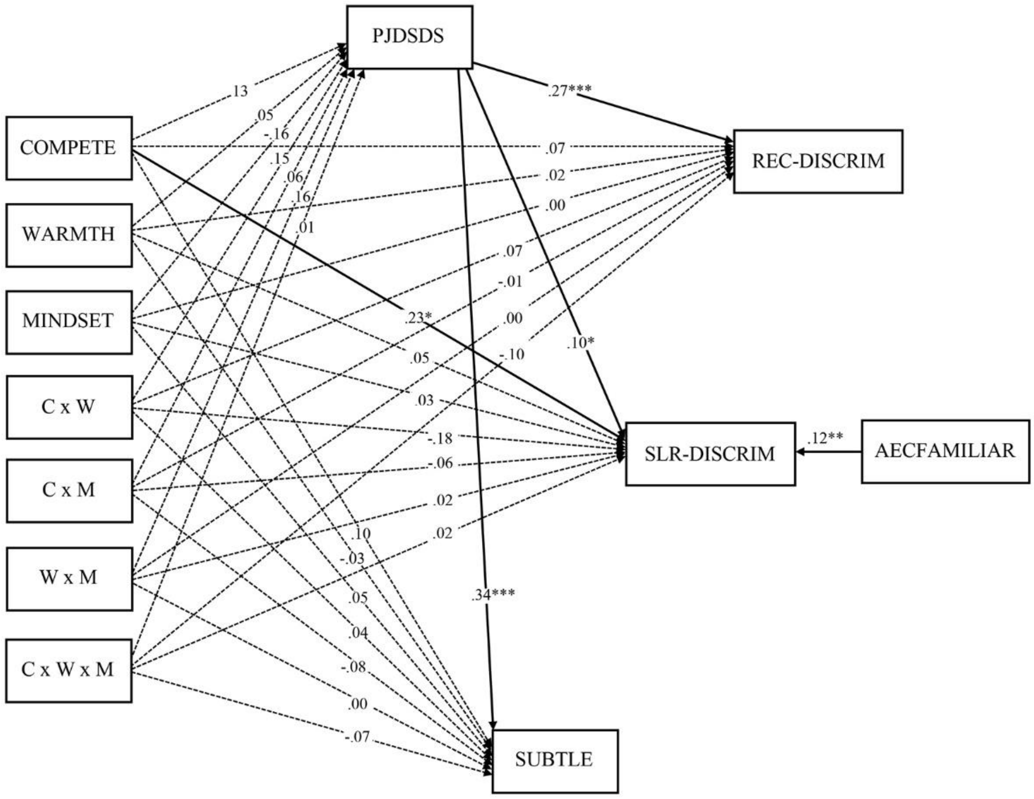

Figure 18. *Standardized coefficients for Study 2 alternative model (Model 6). Chi-square (6, N = 512) = 119.99, p < .001, GFI = .96, RMR = .06, standardized RMR = .05, RMSEA = .19, CFI = .96. Statistically-significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. *p < .05. **p < .01. ***p < .001.*

Table 36

Direct, Indirect, and Total Effect on Dependent Variables of Model 6

Variable		REC-DISCRIM			SLR-DISCRIM			SUBTLE			PJDSDS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.07	.04	.11	.23*	.01	.24**	.10	.05	.15	.13	-	.13
	b	.15	.07	.22	.76*	.04	.80**	.17	.07	.24	.26	-	.26
	SE	.18	.05	.18	.29	.03	.29	.14	.05	.14	.16	-	.16
	t	.84	1.54	1.22	2.59	1.27	2.75	1.22	1.56	1.68	1.58	-	1.59
WARM-TH	β	.02	.01	.03	.05	.00	.05	-.03	.02	-.01	.05	-	.05
	b	.04	.03	.06	.17	.02	.18	-.05	.03	-.02	.09	-	.09
	SE	.18	.05	.18	.29	.03	.29	.14	.05	.14	.16	-	.16
	t	.21	.55	.35	.57	.53	.62	-.34	.55	-.15	.55	-	.55
MIND-SET	β	.00	-.04	-.04	.03	-.02	.01	.05	-.06	-.01	-.16	-	-.16
	b	.01	-.09	-.08	.09	-.05	.03	.07	-.09	-.02	-.32	-	-.32
	SE	.18	.05	.18	.29	.04	.29	.14	.05	.14	.16	-	.16
	t	.05	-1.84	-.43	.30	-1.43	.12	.55	-1.88	-.11	-1.93	-	-1.94
CxW	β	.07	.04	.11	-.18	.02	-.17	.04	.05	.09	.15	-	.15
	b	.16	.09	.25	-.71	.06	-.65	.08	.10	.18	.34	-	.34
	SE	.25	.07	.25	.42	.05	.41	.19	.07	.20	.23	-	.23
	t	.63	1.43	.98	-1.71	1.21	-1.58	.42	1.45	.88	1.46	-	1.47
CxM	β	-.01	.02	.01	-.06	.01	-.06	-.08	.02	-.06	.06	-	.06
	b	-.02	.04	.02	-.24	.02	-.22	-.16	.04	-.12	.13	-	.13
	SE	.25	.06	.25	.42	.04	.41	.19	.07	.20	.23	-	.23
	t	-.08	.55	.06	-.59	.54	-.54	-.81	.55	-.60	.55	-	.55
WxM	β	.00	.04	.05	.02	.02	.04	.00	.06	.05	.16	-	.16
	b	.01	.10	.11	.08	.06	.14	.00	.10	.10	.36	-	.36
	SE	.25	.07	.25	.42	.05	.41	.19	.07	.20	.23	-	.23
	t	.04	1.52	.43	.19	1.27	.34	-.02	1.54	.49	1.56	-	1.58
CxW xM	β	-.10	.00	-.10	.02	.00	.02	-.07	.00	-.07	.01	-	.01
	b	-.30	.01	-.30	.08	.00	.08	-.18	.01	-.17	.02	-	.02
	SE	.35	.09	.36	.59	.06	.59	.27	.09	.29	.33	-	.33
	t	-.86	.06	-.83	.13	.06	.14	-.66	.06	-.60	.06	-	.06
PJD-SDS	β	.27***	-	.27***	.10*	-	.10*	.34***	-	.34***	-	-	-
	b	.28***	-	.28***	.17*	-	.17*	.28***	-	.28***	-	-	-
	SE	.05	-	.05	.08	-	.08	.04	-	.04	-	-	-
	t	5.81	-	5.86	2.11	-	2.13	7.72	-	7.78	-	-	-
AEC FAMI-LIAR	β	-	-	-	.12**	-	.12**	-	-	-	-	-	-
	b	-	-	-	.42**	-	.42**	-	-	-	-	-	-
	SE	-	-	-	.15	-	.15	-	-	-	-	-	-
	t	-	-	-	2.84	-	2.86	-	-	-	-	-	-
R^2			.09			.05			.13			.13	
Chi-square (6, *N* = 512) = 119.99, *p* < .001, GFI = .96, RMR = .06, standardized RMR = .05, RMSEA = .19, CFI = .96.													

**p* < .05. ***p* < .01. ****p* < .001.

Model 7 – a parsimonious alternative model for Study 2

This final model was introduced to address the shortcoming of Model 4 and Model 6 in three areas.

First, prejudice was used as mediator for competent and warmth on recommendation discrimination, salary discrimination, and subtle hiring discrimination.

Second, error terms between recommendation discrimination, salary discrimination, and subtle hiring discrimination were relaxed. These adjustments were made to improve the overall model fit since Model 4 and Model 6 reported large standardized residuals between these three dependent variable.

Finally, non-significant relationships between variables were dropped. Model 7 retained the direct path from competence stereotype and CxW to blatant hiring discrimination measures, the direct path from evaluator's mindset on the three dependent variables, and the mediating effect of prejudice from competence and warmth stereotypes on the three dependent variables. The direct path from the interactions between evaluator's mindset and stereotypes were dropped.

Model 7 was analysed from the PRELIS data, consisting 7 independent variables, 3 dependent variables, 1 mediator, and 1 covariate. The total samples for analysis were 512. The standardized coefficients of Model 7 are presented in Figure 19.

Fit indices

<u>Overall fit</u>

Model 7 had χ^2 = 9.13, df = 9, N = 512, p = .33, which indicated that the observed covariance matric fit the estimated covariance matrix.

<u>Absolute fit indices</u>

The value for GFI was 1.00, which was higher than guideline of .90, indicating a good fit. The normed χ^2 (χ^2/df) was 1.01, which was lower than the range of 2 to 5 and was considered a good fit. RMSEA was .02, which was lower than the guideline of .04, indicating a good fit. The SRMR was .02, which was lower than the conservative value of .05. Thus the model passed all 4 absolute fit indices, indicated that the model had a good fit.

<u>Incremental fit index</u>

CFI was 1.00, which was higher than the cut-off model of .97 and was considered a good fit.

<u>Standardized residual</u>

The largest standardized residual for Model 5 was 1.35, which was lower than cut off criterion of 2.

<u>Summary of model fit</u>

The fit indices indicated that Model 7 had good fit since the model passed all criteria.

The effects on salary discrimination

The analysis revealed that the competence stereotype had a significant total effect on salary discrimination (TE β = .18, $p < .001$). When controlling for prejudice and AEC familiarity, the effect was reduced (DE β = .15, $p < .01$), and the indirect effect of competence stereotype on salary discrimination was also significant (IE β = .03, $p < .05$). This result suggested that prejudice mediated the effect of competence on salary discrimination.

In addition, the interaction between competence and warmth stereotypes had a significant direct effect on salary discrimination (β = -.12, $p < .05$), when controlling for prejudice and AEC familiarity.

Finally, the result from Model 7 confirmed that evaluator's mindset did not predicted salary discrimination, when controlling for prejudice and AEC familiarity (β = .01, *ns*).

The effects on recommendation discrimination

The analysis revealed that the competence stereotype had a significant total effect on recommendation discrimination (TE β = .11, $p < .05$). When controlling for prejudice, the effect was reduced to non-significant level (DE β = .04, *ns*), and the indirect effect of competence stereotype on salary discrimination was also significant (IE β = .07, $p < .001$). This result suggested that prejudice mediated the effect of competence on recommendation discrimination.

However, the interaction between competence and warmth stereotypes did not have a significant direct effect on recommendation discrimination (β = .02, *ns*), when controlling for prejudice.

Finally, the result from Model 7 also confirmed the previous findings from other Study 2 models that evaluator's mindset did not predicted recommendation discrimination, when controlling for prejudice (β = -.03, *ns*).

The effects on subtle hiring discrimination

The results confirmed Study 1 findings that prejudice mediated the effect of warmth stereotype on subtle hiring discrimination. The warmth stereotype had a non-significant total effect on subtle hiring discrimination (TE β = .04, *ns*). When controlling for prejudice, the effect of the warmth stereotype on subtle hiring discrimination was significantly reduced (DE β = -.04, *ns*), and the indirect effect of warmth stereotype on subtle hiring discrimination was significant (IE β = .08, p < .001).

In addition, the competence stereotypes also had a significant total effect on subtle hiring discrimination (β = .09, p < .001), when controlling for prejudice.

Finally, the result from Model 7 confirmed that evaluator's mindset did not predicted subtle hiring discrimination, when controlling for prejudice (β = -.03, *ns*).

In sum, Model 7 showed that the competence stereotype directly predicted salary discrimination, when controlling for prejudice, which supported H2.2b.

In addition, the interaction between competence and warmth stereotype was also significant which supported H2.4b.

The H2.4b results differed from the results from Model 4 and Model 6 because in Model 7 the non-significant paths were excluded, as a result, the model had a higher predictive power than Model 4 and Model 6.

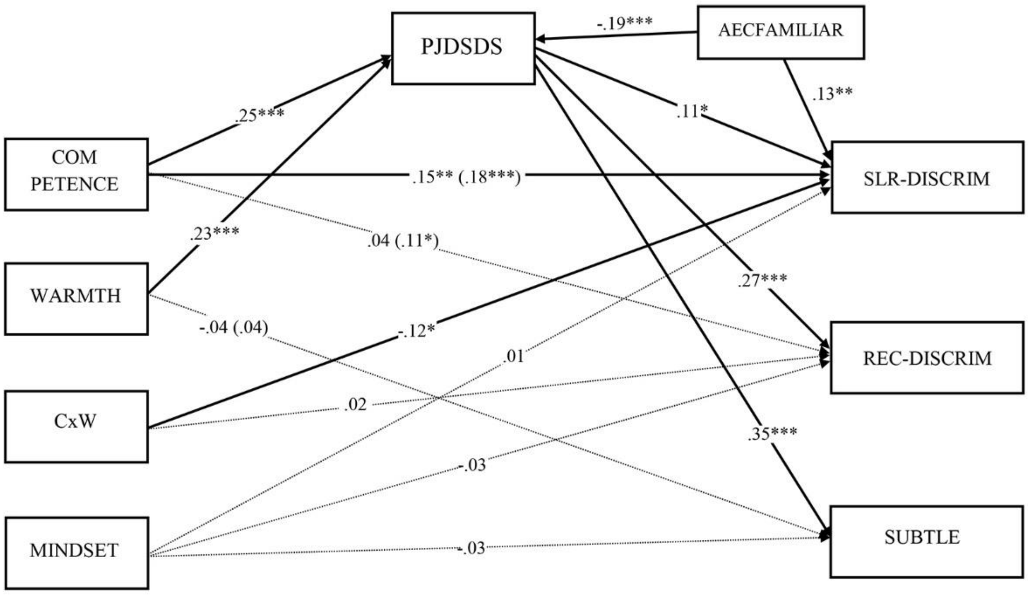

Figure 19. *Standardized coefficients for Study 2 parsimonious model (Model 7). Chi-square (9, N = 512) = 9.13, p = .33, GFI = 1.00, RMR = .01, standardized RMR = .02, RMSEA = .02, CFI = 1.00. Statistically-significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. *p < .05. **p < .01. ***p < .001.*

Table 37

Direct, Indirect, and Total Effects on Dependent Variables of Model 7

Variable		SLR-DISCRIM			REC-DISCRIM			SUBTLE			PJDSDS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPETENCE	β	.15**	.03*	.18***	.04	.07***	.11*	-	.09***	.09***	.25***	-	.25***
	b	.50**	.09*	.59***	.08	.14***	.22*	-	.15***	.15***	.50***	-	.50***
	SE	.18	.04	.18	.10	.03	.10	-	.03	.03	.08	-	.08
	t	2.81	2.21	3.34	.79	4.32	2.10	-	4.96	4.96	6.14	-	6.17
WARM-TH	β	-	.03*	.03*	-	.06***	.06***	-.04	.08***	.04	.23***	-	.23***
	b	-	.09*	.09*	-	.13***	.13***	-.07	.14***	.07	.46***	-	.46***
	SE	-	.04	.04	-	.03	.03	.07	.03	.08	.08	-	.08
	t	-	2.19	2.19	-	4.16	4.16	-1.01	4.72	.97	5.71	-	5.74
CxW	β	-.12*	-	-.12*	.02	-	.02	-	-	-	-	-	-
	b	-.48*	-	-.48*	.04	-	.04	-	-	-	-	-	-
	SE	.21	-	.21	.12	-	.12	-	-	-	-	-	-
	t	-2.31	-	-2.32	.36	-	.36	-	-	-	-	-	-
MIND-SET	β	.01	-	.01	-.03	-	-.03	-.03	-	-.03	-	-	-
	b	.03	-	.03	-.07	-	-.07	-.05	-	-.05	-	-	-
	SE	.15	-	.15	.09	-	.09	.07	-	.07	-	-	-
	t	.18	-	.18	-.81	-	-.82	-.73	-	-.74	-	-	-
PJDSDS	β	.11*	-	.11*	.27***	-	.27***	.35***	-	.35***	-	-	-
	b	.19*	-	.19*	.28***	-	.28***	.29***	-	.28***	-	-	-
	SE	.08	-	.08	.05	-	.05	.04	-	.03	-	-	-
	t	2.36	-	2.37	6.02	-	6.05	8.30	-	8.31	-	-	-
AEC FAMI-LIAR	β	.13**	-.02*	.11**	-	-.05***	-.05***	-	-.07***	-.07***	-.19***	-	-.19***
	b	.45**	-.07*	.38**	-	-.10***	-.10***	-	-.11***	-.11***	-.38***	-	-.38***
	SE	.15	.03	.14	-	.03	.03	-	.02	.03	.08	-	.08
	t	3.10	-2.11	2.66	-	-3.69	-3.69	-	-4.07	-4.07	-4.62	-	-4.66
R^2			.04			.08			.12			.15	

Chi-square (9, *N* = 512) = 9.13, *p* = .33, GFI = 1.00, RMR = .01, standardized RMR = .02, RMSEA = .02, CFI = 1.00.

**p* < .05. ***p* < .01. ****p* < .001.

Interaction effect between competence and warmth stereotypes

Model 7 showed that the direct interaction effect of the two stereotype dimensions on salary discrimination was significant ($\beta = -.12$, $p < .05$). Thus the interaction effect was further investigated using a simple slope test.

Further analysis using PROCESS showed that the conditional effects of the competence stereotype on salary discrimination were significant for the high warmth condition when the evaluators had cooperative mindset, $b = .76$, $t(510) = 2.58$, $p < .05$. The highly-competent candidate from Laos (the LC-HW stereotyped country) received a significantly lower starting salary than the candidate of the same profile from Singapore (the HC-HW stereotyped country) when prejudice and familiarity with AEC were controlled for.

Under the competition mindset condition, the highly-competent candidate from Laos also received a lower starting salary than the candidate of the same profile from Singapore, but the difference was moderate and did not reach a significant level, $b = .52$, $t(510) = 1.75$, $p = .08$, when prejudice and familiarity with AEC were controlled for.

The means plot showed that the competence stereotype had a greater effect when interacting with the high warmth condition compared to the low warmth condition. This result suggested that the country's positive warmth stereotype caused an unfavourable effect on the perceivers' hiring decisions. When the highly-competent candidates were from countries with a low competence stereotype, the country's high warmth stereotype actually worsened their chances to get a high starting salary compared to the candidate from the low warmth stereotyped country.

However, the competence stereotype did not have a significant effect when the warmth stereotype was low either when the evaluators had a cooperative or competitive mindset. The highly-competent candidate from Myanmar (the LC-LW stereotyped country) received a starting salary similar to either candidate of the same profile from Malaysia (the HC-LW stereotyped country) when prejudice and familiarity with AEC were controlled for.

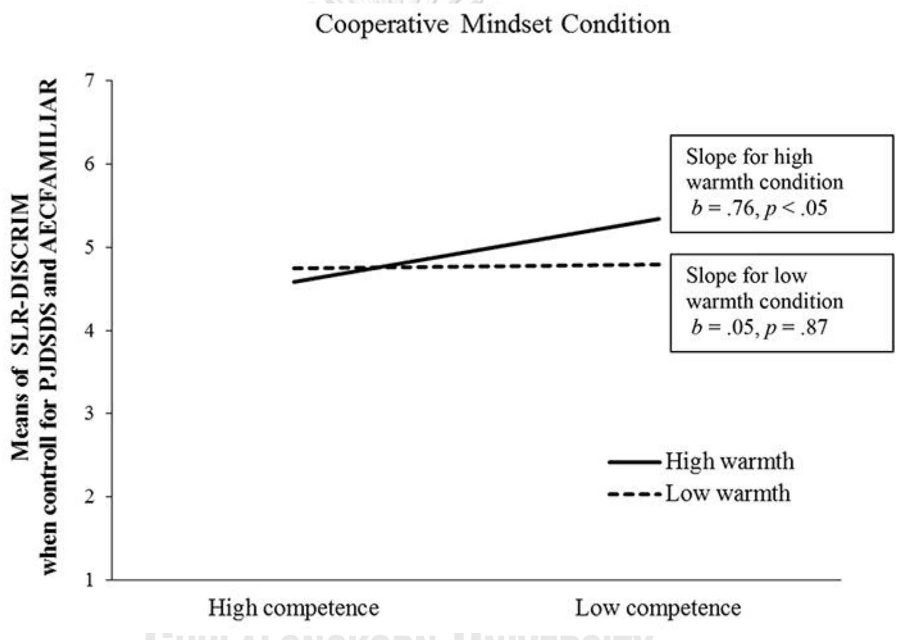

Figure 20. Means plot of the effect of competence stereotype on salary discrimination at different values of the warmth stereotype when the evaluators had a cooperative mindset and when controlling for prejudice and familiarity with the AEC.

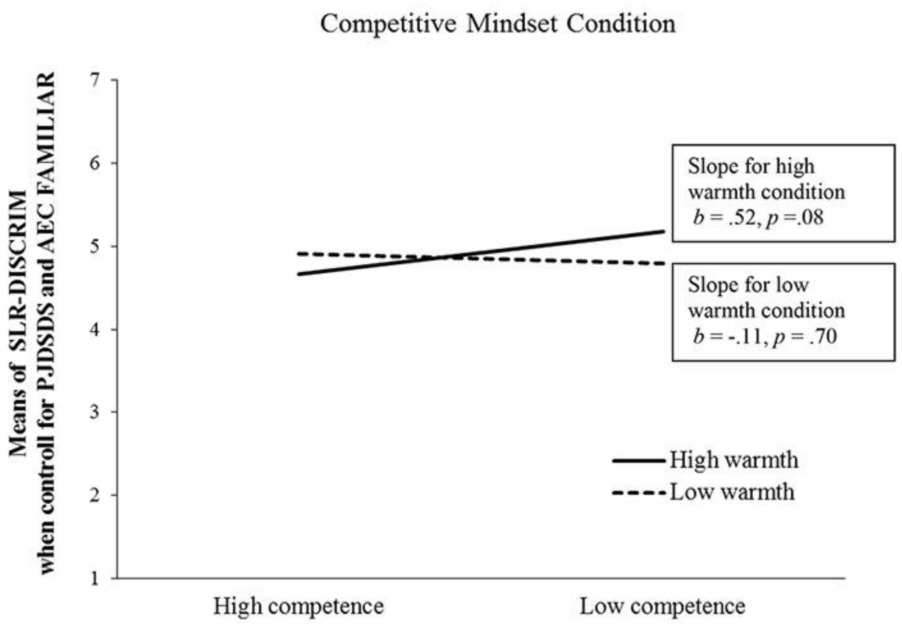

Figure 21. *Means plot of the effect of competence stereotype on salary discrimination at different values of the warmth stereotype, when the evaluators had a competitive mindset and when controlling for prejudice and familiarity with the AEC.*

Table 38

Conditional Effect of Competence Stereotype and Interaction Between Competence and Warmth Stereotypes on Salary Discrimination at Different Values of Warmth Stereotype and Evaluators' Mindset, When Controlling for Prejudice and Covariate

		b	*SE*	*t*	*p*	*LLCI*	*ULCI*
Cooperative mindset	HW	.76	.29	2.58	.01	.18	1.34
	LW	.05	.30	.17	.87	-.54	.64
Competitive mindset	HW	.52	.30	1.75	.08	-.06	1.10
	LW	-.11	.30	-.38	.70	-.70	.47
Cooperative mindset		-.71	.42	-1.70	.09	-1.53	.11
Competitive mindset		-.63	.42	-1.52	.13	-1.45	.19

Note. HW = high warmth; LW = low warmth.

Hypothesis testing for Study 2

In sum, the results supported only H2.2b and H2.4 b but did not support other hypotheses, as summarized in Table 39, Table 40, and Table 41.

Table 39

Summary of Study 2 Hypothesis Tests Regarding Blatant Hiring Discrimination

	Hypotheses regarding blatant hiring discrimination	Measurement used	
		(a) Recom-mendation discrimination	(b) Salary discrimi-nation
H2.1	The evaluator's mindset has a direct effect on blatant hiring discrimination such that evaluators with a competitive mindset have higher blatant hiring discrimination than those with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support
H2.2	The competence stereotype has a direct effect on blatant hiring discrimination such that highly-competent candidates from high competence stereotyped countries receive lower blatant hiring discrimination compared to highly-competent candidates from low competence stereotyped countries, when controlling for prejudice.	Did not support	Supported
H2.3	The warmth stereotype has a direct effect on blatant hiring discrimination such that highly-competent candidates from high warmth stereotyped countries receive lower blatant hiring discrimination compared to highly-competent candidates from low warmth stereotyped countries, when controlling for prejudice.	Did not support	Did not support
H2.4	There is an interaction between the competence and warmth stereotype regarding blatant hiring discrimination such that the effect of the competence stereotype on blatant hiring discrimination is greater among the high warmth stereotyped countries compared to the low warmth stereotyped countries, when controlling for prejudice. On the other hand the effect of the warmth stereotype on blatant hiring discrimination is greater among high competence stereotyped countries compare to low competence stereotyped countries, when controlling for prejudice.	Did not support	Did not support by Model 4 but supported by the parsimoni ous model

(continued)

	Hypotheses regarding blatant hiring discrimination	Measurement used	
		(a) Recom-mendation discrimination	(b) Salary discrimi-nation
H2.5	There is an interaction between the competence stereotype and the evaluator's mindset regarding blatant hiring discrimination such that the effect of the competence stereotype on blatant discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support
H2.6	There is an interaction between the warmth stereotype and the evaluator's mindset regarding blatant hiring discrimination such that the effect of the warmth stereotype on blatant discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support
H2.7	There are interactions between the competence stereotype, the warmth stereotype, and the evaluator's mindset regarding blatant hiring discrimination such that the effect of the competence stereotype on blatant discrimination is greater among the low warmth stereotyped group compared to high the warmth stereotyped group only among evaluators with competitive mindset, when controlling for prejudice. On the other hand, the effect of the competence stereotype on blatant discrimination is lower among the high warmth stereotyped group compared to the low warmth stereotyped group only among evaluators with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support

Table 40

Summary of Study 2 Hypothesis Tests Regarding Subtle Hiring Discrimination

Hypotheses regarding subtle hiring discrimination		Measurement used		
		(c) Career related item rating	(d) Probation placement discrimination	(e) Probation time discrimination
H2.1	The evaluator's mindset has a direct effect on subtle hiring discrimination such that evaluators with a competitive mindset have higher subtle hiring discrimination than those with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support	Did not support
H2.2	The competence stereotype has a direct effect on subtle hiring discrimination such that highly-competent candidates from high competence stereotyped countries receive lower subtle hiring discrimination compared to highly-competent candidates from low competence stereotyped countries, when controlling for prejudice.	Did not support	Supported	Did not support
H2.3	The warmth stereotype has a direct effect on subtle hiring discrimination such that highly-competent candidates from high warmth stereotyped countries receive lower subtle hiring discrimination compared to candidates from low warmth stereotyped countries, when controlling for prejudice.	Did not support	Did not support	Did not support
H2.4	There is an interaction between the competence and warmth stereotype regarding subtle hiring discrimination such that the effect of the competence stereotype on subtle hiring discrimination is greater among the high warmth stereotyped countries compared to the low warmth stereotyped countries, when controlling for prejudice. On the other hand the effect of the warmth stereotype on subtle hiring discrimination is greater among high competence stereotyped countries compare to low competence stereotyped countries, when controlling for prejudice.	Did not support	Did not support	Did not support

(continued)

Hypotheses regarding subtle hiring discrimination		Measurement used		
		(c) Career related item rating	(d) Probation placement discrimination	(e) Probation time discrimination
H2.5	There is an interaction between the competence stereotype and the evaluator's mindset regarding blatant subtle hiring discrimination such that the effect of the competence stereotype on subtle discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support	Did not support
H2.6	There is an interaction between the warmth stereotype and the evaluator's mindset regarding subtle hiring discrimination such that the effect of the warmth stereotype on subtle discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support	Did not support
H2.7	There are interactions between the competence stereotype, the warmth stereotype, and the evaluator's mindset regarding subtle hiring discrimination such that the effect of the competence stereotype on subtle discrimination is greater among the low warmth stereotyped group compared to high the warmth stereotyped group only among evaluators with competitive mindset, when controlling for prejudice. On the other hand, the effect of the competence stereotype on subtle discrimination is lower among the high warmth stereotyped group compared to the low warmth stereotyped group only among evaluators with a cooperative mindset, when controlling for prejudice.	Did not support	Did not support	Did not support

(continued)

Table 41

Summary of Study 2 Hypothesis Tests Regarding Stringent Evaluation Standard

	Hypotheses regarding stringent evaluation standards	Result
H3a	The effects of the competence and warmth stereotypes and the evaluators' mindset on recommendation discrimination can be partially explained by an increase in the participants' stringent evaluation standards for the candidates.	Did not support
H3b	The effects of the competence and warmth stereotypes and the evaluators' mindset on salary discrimination can be partially explained by an increase in the participants' stringent evaluation standards for the candidates.	Did not support
H3c	The effects of the competence and warmth stereotypes and the evaluators' mindset on subtle hiring discrimination can be partially explained by an increase in the participants' stringent evaluation standards for the candidates.	Did not support
H3d	The effects of the competence and warmth stereotypes and the evaluators' mindset on probation placement discrimination can be partially explained by an increase in the participants' stringent evaluation standards for the candidates.	Did not support
H3e	The effects of the competence and warmth stereotypes and the evaluators' mindset on probation time discrimination can be partially explained by an increase in the participants' stringent evaluation standards for the candidates.	Did not support

Chapter 4

Discussion

The present study aimed to demonstrate whether Thai people discriminate against highly-competent candidates from different AEC countries. The results confirmed that these individuals did not receive equal treatment or evaluation in most of the hiring measures. The perceivers' prejudice and the candidates' country stereotypes predicted the candidates' likelihood to be hired, their starting salary, and how they were perceived, even though the candidates had excellent qualifications.

The results offer supporting evidence for the continuum model of impression formation (Fiske et al., 1999; Fiske & Neuberg, 1990)—that people use stereotypes as social cues to arrive at their final hiring decisions and evaluations, and supporting evidence for the SCM (Cuddy et al., 2007; Fiske et al., 2002)—that warmth and competence stereotypes differentiate the stereotype effects on hiring discrimination. More importantly, this study clearly demonstrates that incoming skilled candidates could face discrimination both blatantly and subtlety; and the causes of discrimination lie in both the perceivers' beliefs about the target's country as well as the prejudice that perceivers hold against that country and its citizen.

In addition, this research also sheds new light on how stereotypes and prejudice affect hiring discrimination against highly-competent candidates. In the two experiments, it was found that the candidates' country competence stereotype was the key factor that caused blatant hiring discrimination, and its effect can occur without the perceivers' prejudice. On the other hand, the candidates' country warmth stereotype indirectly affected how the perceivers evaluated the candidate through their prejudice, which eventually led to subtle hiring discrimination.

This study also tested the hypothesis that participants that perceive the AEC as cooperation among countries exhibit less hiring discrimination compared to those that perceive the AEC as competition over resources, and whether the participants use different standards when evaluating candidates. Contrary to the research hypothesis, the results showed that the perceivers' cooperative or competitive mindset did not affect their hiring decisions. Moreover, this study also showed that when the perceivers encountered a highly-competent out-group, they did not adjust their evaluation standard.

These findings are somewhat surprising and contradict the past evidence from intergroup bias studies. However, when taking into account that this study compared four out-groups while past studies often compared only one in-group to an out-group, it is possible that the effect from the cooperative and competitive mindset and the stringent evaluation standard may differ from past studies because of the absence of the in-group effect.

The following section presents a detailed discussion in two parts. The first part presents Study 2 discussion and the second part presents Study 2 discussion.

Study 1 Discussion

Blatant hiring discrimination: hireability rating

The results from Study 1 revealed that the participants gave different hireability scores to the highly-competent candidates of the same profile but that came from different countries, which confirmed that highly-competent candidates face hiring discrimination according to their country of origin. This result differs from that of past studies where research that measured the intention to hire reported a decreasing trend and tended to show no race effect among American participants (Derous et al., 2009; Frazer & Wiersma, 2001; Stewart & Perlow, 2001). In this study, the candidates received a significantly different hireability rating, which showed that in the Thai context perceivers express their discrimination openly. The results from Study 1 showed that the participants gave a higher hireability rating to candidates from high competence countries than low competence countries even when their prejudice level was controlled for.

Further investigation into the causes of discrimination revealed that the perceivers' level of prejudice and how the participants perceived the candidate's country stereotype predicted the candidates' hireability rating. Perceivers' that had higher prejudice toward the candidate country were also less likely to hire the candidate. When the effect of prejudice was controlled for, the results showed that the perceivers relied on their belief about the country's competence as a social cue to arrive to their final hiring judgment. As a result, the highly-competent candidate from the LC-HW stereotyped country was less likely to be hired compared to his or her counterpart from the HC-HW stereotyped country; and the discrimination occurred regardless of the perceivers' level of prejudice, which suggested that the belief about the other country's competency alone can cause hiring decision bias.

Such findings support the prediction of the continuum model of impression formation (Fiske et al., 1999; Fiske & Neuberg, 1990)—that perceivers rely on the target's social category stereotype when they evaluate and make decisions; and also support the notion that stereotype and prejudice are two distinct constructs that exert their effect differently (Devine, 1989). The findings also add to the lines of research, that the effects of stereotype are persistent (Hewstone et al., 1992a; Hewstone, Johnston, & Aird, 1992b; Kunda et al., 1990; Weber & Crocker, 1983). The inconsistency between the target's competence and the person's country's low competence stereotype was not enough to engage the perceivers' in using a piecemeal process and eradicating the effect of the stereotypes.

In contrast with the findings on competence stereotype, the warmth stereotype did not affect the candidate's hireability when prejudice was controlled for. The results suggest that regarding direct hiring decisions, the competence stereotype is the key dimension, which is in line with past studies that indicate that candidates from social groups that are perceived as low competent are likely to be discriminated against, regardless of how they are perceived on the warmth dimension, such as Black candidates (LC-LW stereotyped group; e.g. Dovidio & Gaertner, 2000), and female and older candidates (LC-HW stereotyped group; e.g. Glick & Fiske, 2001; Glick, Fiske, Mladinic et al., 2000; Cuddy et al., 2005; Richardson et al., 2013; Rupp, Vodanovich, & Crede, 2006).

The parsimonious model from Study 1 showed that there was a significant interaction between the two stereotype dimensions on hireability when prejudice was controlled for. Further investigation showed that when the highly-competent candidates came from countries with a low competence stereotype, the country's high warmth stereotype actually worsened their chances to be hired compared to the candidates from a low warmth stereotyped country. As a result the candidates from the LC-HW stereotyped country were the most likely to be discriminated against. This result is in line with the notion that people have a natural tendency to perceive a warm person as incompetent and to perceive a cold person as competent (Judd et al., 2005; Yzerbyt et al., 2005; Yzerbyt et al., 2008). This study found supporting evidence that blatant discrimination was the most severe among the high warmth-low competence group.

Subtle hiring discrimination

The highly-competent candidates faced not only direct discrimination, i.e. hireability, but also indirect discrimination from negative ratings in the aspects of career advancement and social fit with co-workers and customers. Perceivers also had less confidence in their decision to hire the candidate. Study 1 results showed that the highly-competent candidate from a LC-LW stereotyped country was perceived less positively on the subtle hiring discrimination scale than his or her counterparts from the LC-HW and the HC-HW stereotyped countries.

Study 1 results suggest that the causes of this subtle hiring discrimination were from the perceivers prejudice as well as how the perceivers perceived the candidate's warmth country stereotype. When the perceivers encountered a candidate from low warmth country their prejudice toward the candidate's country elevated and the more they held prejudice against the candidate's country the more poorly they rated the candidate. However, when the prejudice effect was taken out, the warmth stereotype was significantly reduced.

These findings contradict the BIAS prediction (Cuddy et al., 2007)—that the warmth dimension is the primary dimension that yields the main effect on blatant discriminatory behaviours, while competence is a secondary dimension that yields the main effect on subtle discriminatory behaviours. On a contrary, this study findings are in line with past hiring discrimination research, where it was indicated that the warmth dimension predicted subtle hiring discrimination (Berdahl & Min, 2012; Lai & Babcock, 2013).

However, the detailed analysis on subtle hiring discrimination did not show any interaction effect and thus failed to support the notion that people have a natural tendency to perceive competent persons as cold (Judd et al., 2005; Yzerbyt et al., 2005; Yzerbyt et al., 2008). In this study, the subtle hiring discrimination was not the most severe among the HC-LW stereotyped group but, instead, the LC-LW stereotyped group received the lowest subtle discrimination score.

Study 2 Discussion

Blatant hiring discrimination: recommendation discrimination

The results from Study 2 suggest that the participants gave different recommendation scores to the highly-competent candidates from different AEC countries, which confirmed that the candidates faced hiring discrimination according to their country of origin.

Further investigation into the causes of discrimination revealed that the perceivers' level of prejudice predicted the candidates' recommendation score and without the perceivers' prejudice the country stereotypes did not affect their recommendation. Perceivers' that had higher prejudice toward the candidate's nationality they were less likely to recommend the candidate, but when controlling for prejudice, the candidates from Singapore, Myanmar, Laos, and Malaysia had equal chances to be recommended to the position. This result suggests that the perceivers did not rely on their belief about the country's stereotype to evaluate the candidate, which contradicts Study 1 results and did not support this study's prediction.

Study 2 measured two blatant hiring discrimination indicators. The recommendation rating was one of the two measurements that were not affected by stereotypes when prejudice was controlled for. Thus it is possible that the non-significant result was not because the participants deliberately avoided making discrimination judgments; instead, the lack of stereotype effect may have been a result of the higher prejudice level in response to the stimulus that used the actual country, and indeed the effect of prejudice on recommendation ($\beta = .22$, $p < .01$) was larger than the effect of prejudice on hireability in Study 1 ($\beta = .27$, $p < .001$).

Blatant hiring discrimination: salary discrimination

The results also showed that the participants gave a different starting salary to the highly-competent candidates from different nationalities. The participants gave a significantly lower starting salary to the Laos candidate compared to candidate of the same profile from Singapore. Thus the results from Study 2 firmly support Study 1 results, that in Thailand hiring discrimination occurs blatantly and the participants did not mask their bias, unlike the studies in the United States where there has been a decreasing trend in the direct discrimination measurements (Dovidio & Gaertner, 2000, 2004; McConahay et al., 1981; Sears & Henry, 2003).

The perceivers' that had higher prejudice toward the candidate's country also gave the candidate a lower starting salary, and when the effect of prejudice was controlled for, the results showed that the country competence stereotype had a significant direct effect on the salary rating. Candidates from Laos received a significantly lower starting salary than candidates of the same profile from Singapore when the perceivers' prejudice and familiarity with the AEC were controlled for. This result is in line with Study 1 results—that the belief about the other country's competency alone can cause hiring decision bias. Thus the findings from both studies support the predictions of the continuum model of impression formation (Fiske et al., 1999; Fiske & Neuberg, 1990), and support the notion that the effects of stereotype are persistent (Hewstone et al., 1992a; Hewstone et al., 1992b; Kunda et al., 1990; Weber & Crocker, 1983) and can occur among high or low prejudiced people (Devine, 1989).

In addition, Study 2 shows that the Laos candidate received the lowest salary rating which was in line with the result from Study 1, that the LC-HW stereotyped country faced the most severe blatant hiring discrimination. This result is in line with Study 1's result and the studies that suggest a negative correlation between the two stereotype dimensions (Judd et al., 2005; Yzerbyt et al., 2005; Yzerbyt et al., 2008).

The interaction between the two dimensions is not yet conclusive because the effect was not present when the blatant hiring discrimination was measured by a recommendation rating. Although promising results have been identified, further investigation is needed in order to identify why the interaction occurs in only some blatant hiring discrimination indicators.

Subtle hiring discrimination: perceived career advancement, and perceived fit with co-workers and customers

The results from Study 2 consolidated Study 1 result—that highly-competent candidates faced both direct and indirect discrimination. Study 2 revealed that the highly-competent candidate from Myanmar was perceived less positively on the subtle hiring discrimination scale than the candidates from Singapore and Malaysia.

The results also replicated Study 1 results—that prejudice predicted how the participants perceived the candidate. The more the participants held prejudice against the target country, the more negatively they rated the candidate on the subtle hiring discrimination scale, even when the prejudice measurement was changed.

Contrary to Study 1, the warmth stereotype did not have a significant total effect or direct effect on subtle hiring discrimination. This discrepancy between Study 1 and Study 2 results regarding the warmth stereotype may have been caused by Study 2's limitation in selecting Malaysia to represent the low warmth-high competence stereotyped group. According to Boonyasiriwat and Puttaravuttiporn

(2015) study, Thai people do not perceive any country as having truly a low warmth-high competence stereotype (see Figure 2). Although the manipulation check from Study 2 showed that the warmth manipulation effect was qualified, the effect size of the warmth stereotype manipulation was significantly lower than in Study 1 (Study 1 η^2 = .63; Study 2 $\eta^{2\,=}$ .07).

In addition, Study 2 participants were manipulated to have either a cooperative or competitive mindset, which may have caused unknown confounding variables and limited the direct comparison between Study 1 and Study 2 results. In order to resolve this issue, Puttaravuttiporn and Boonyasiriwat (2017) carried out another study using the same AEC countries but did not manipulate the evaluators' mindset to specifically test whether Study 1 results would be replicated. They found that the warmth stereotype did have a significant total effect on subtle hiring discrimination, as identified in Study 1.

Subtle hiring discrimination: probation placement and probation time

This research also measured probation-related decisions in order to explore additional business practices that may reflect subtle discrimination in the organization. The measurements were an extension of Stewart's (2001) finding—that employers may express subtle discrimination in their lack of confidence in their decision. Thus, this study hypothesized that when an employer feels uncertain about his or her hiring decision, he or she will express that uncertainly by stating that the candidate needs to be on probation and putting the candidate in a longer probation time to compensate for their uncertainty.

The results from both probation items were somewhat inconclusive. The probation placement item offers some support to this study's hypotheses, as the participants viewed that candidates from low competence countries needed to be on probation more than those from high competence countries. On the other hand, the participants' rating on probation time did not differ due to the country's stereotypes at all.

Although these two items were proposed as subtle hiring discrimination expressions, both probation items had a low correlation with other subtle hiring discrimination items, which indicates that the participants evaluated the probation items differently from the subtle hiring discrimination items. Moreover, both probation variables suffered from correlated errors due to the participants' demographics; thus it is possible that there were other confounding variables that this research did not detect. For example, the data showed that the participants that gave a higher starting salary also recommended a higher probation period in which past probationary period practices survey found that longer probationary periods tended to be recommended for the more complex jobs (Elliott & Peaton, 1994); thus further investigation is needed.

The mediating effect of the stringent evaluation standard

This study also tested the hypothesis that when perceivers encounter a highly-competent out-group, they will assimilate the successful out-group individual to their group's negative stereotype and use a more rigid standard to evaluate the target (Biernat & Kobrynowicz, 1997). Foschi (2000) called this effect a double standard, where an individual from a group that is perceived to be deficient in competence is judged with a stricter standard and faces a more thorough inspection compared to an individual from a group that is perceived to process higher competence.

However, Study 2 findings did not support the stringent evaluation standard hypothesis. Not only did the stringent standard evaluation not affect blatant or subtle hiring discrimination, it also did not mediate the effects of stereotypes on any of the five indicators of hiring discrimination. These results contrast those of Biernat and colleagues—that the counter-stereotypic target should be subjected to a double standard and face a more strict evaluation standard from the participants.

An important difference between this study and Biernat and colleagues' work is that this study compared four out-groups in which the participants' in-group (Thai candidate) was not included in the comparison, while Biernat and colleagues' works compared an in-group with an out-group, such as White candidates versus Black candidates, or male candidates versus female candidates (Biernat, Fuegen, & Kobrynowicz, 2010; Biernat & Kobrynowicz, 1997). Thus it is possible that when the effects that are caused by in-groups versus out-groups are excluded, the mediating effect of the stringent evaluation standard is reduced. This insight, however, should be further investigated.

Cooperative vs. competitive mindset

This research also investigated the effects of the intergroup cooperation and competition mindset on hiring discrimination since the MRA can be seen either as cooperation between countries or cause higher competition in the local labour market. Counter to this study's hypothesis and evidence from past research (Bornstein et al., 1997; Esses et al., 1998), the results from Study 2 showed that the perceivers' cooperative or competitive mindset did not affect their hiring decisions, and the highly-competent candidate from country with a particular stereotype combination did not benefit from the perceivers' perception that the AEC represented cooperation or competition between countries.

In addition, the results did not show the scapegoating effect where the member of the HC-LW stereotyped group faces significantly higher blatant discrimination when the society is under a stressful environment or competition (Cuddy et al., 2008) nor that members from the LC-HW stereotyped group benefited more from proactive help compared to members of other stereotype groups under a cooperative mindset (Cuddy et al., 2007).

The non-significant mindset effect found in Study 2 contradicted the past evidence in intergroup conflict theories—that competition increases discriminatory behaviours while cooperation decreases discriminatory behaviours, such as social categorization theory (Brewer, 1979; Tajfel et al., 1971) and the realistic group conflict theory (Bobo, 1983; Sherif et al., 1961).

A possible explanation is that this study compared four out-groups and left out the in-group completely. This comparison differed from the past studies in which the comparison always included the in-group and thus the effect identified would always include the effect of in-group versus out-group. The effect of the competitive mindset and stereotype identified in this study was not confounded with the effect of the in-group. Thus it is possible that the effect of cooperation that reduced bias such as that proposed by social categorization theory (Brewer, 1979; Tajfel et al., 1971), may have reduced the salience of the intergroup boundary between the in-group and out-group but not the boundaries among the various out-groups. Similarly the effect of competition that leads to conflict between groups and eventually increases intergroup bias (Stephan & Mealy, 2011; Stephan & Stephan, 1996; Stephan et al., 1998; Zárate et al., 2004), such as that proposed by the realistic group conflict theory (Bobo, 1983; Sherif et al., 1961; Zárate et al., 2004), may not yield its effects when the in-group is not in the equation.

In sum, this study fails to support the notion that the cooperative mindset reduces decision bias or that the competitive mindset leads to a higher level of out-group discrimination, and highly-competent candidates from country with a particular stereotype combination do not benefit from the perceivers' perception that the AEC represents cooperation or competition between countries.

Chapter 5

Conclusion and Suggestions for Future Research

Research Goals

This study was designed to investigate the effects of the warmth and the competence stereotypes on different measures of blatant and subtle hiring discrimination using the continuum model of impression formation (Fiske & Neuberg, 1990) and the stereotype content model (Fiske et al., 2002) as a framework. In addition, this study tested whether the evaluators' cooperative or competitive mindset affected their hiring discrimination and whether the stringent standard evaluation (Biernat et al., 2010; Biernat & Kobrynowicz, 1997) explained the effects of the warmth stereotype, the competence stereotype, the evaluators' mindset, and their interaction effects on both types of hiring discrimination.

Population

The target population of this study was university students in Thailand that were studying in areas related to business, management, accounting, finance, human resources, psychology, social science, arts or humanities and that of the Thai nationality and were 18 years or older.

Research Samples

Study 1 samples included 220 university students from four universities in Thailand. Their age ranged from 20 to 30 years; 73% were female and 27% were male; 89% were undergraduate students and the rest were graduate students. Study 2 samples included 512 undergraduate and graduate students from four universities in Thailand. Their ages ranged from 19 to 50 years; 69% were female and 31% were male; 96% were undergraduate students and the rest were graduate students. All of the participants were Thai adults that did not have a close family member from other AEC countries and that had not been living in other AEC countries for more than 6 months at any time in their lives.

Study 1

Hypotheses 1:

H1.1: The competent stereotype has a direct effect on blatant (H1.1a) and subtle hiring discrimination (H1.1b) such that candidates from high competence stereotyped countries receive lower blatant and subtle hiring discrimination, when controlling for prejudice.

H1.2: The warmth stereotype has a direct effect on blatant (H1.2a) and subtle hiring discrimination (H1.2b) such that candidates from high warmth countries receive lower blatant and subtle hiring discrimination compared to candidates from low warmth stereotyped countries, when controlling for prejudice.

H1.3: There is an interaction between the competence and warmth stereotype on blatant (H1.3a) and subtle hiring discrimination (H1.3b) such that the effect of the competent stereotype on blatant hiring discrimination is greater among high warmth stereotyped groups compared to low warmth stereotyped groups, when controlling for prejudice. On the other hand the effect of the warmth stereotype on subtle hiring discrimination is greater among high competence stereotyped groups compare to low warmth stereotyped groups, when controlling for prejudice.

Research tools for Study 1

1) The warmth and competent stereotype were manipulated by asking the participants to read a description of a hypothetical country varying in its competence and warmth valences adopted from Caprariello et al. (2009).
2) Blatant hiring discrimination was measured by the hireability scale (Phelan et al., 2008).
3) Subtle hiring discrimination was measured by four job-related items: confidence in hiring decisions (Stewart & Perlow, 2001), career advancements potential (James, 2000; Landau, 1995; Park et al., 2009), perceived social fit with co-workers, and perceived social fit with customers (Kirschenman & Neckerman, 1990).
4) Prejudice level measurement was measured using the feeling thermometer (Dasgupta & Greenwald, 2001).
5) The job post was a job position advertisement for a food and beverage manager at a five-star hotel in Bangkok.
6) The highly-competent candidate resume used a male, age 30 years, that had a bachelors' degree in a hotel and tourism-related field, was single, and had 7 years of work experience.

Study 1 data collection

Participants were randomly assigned to one the four conditions. First, the participants read the material introduction, stating that this study aimed to understand how people process information about overseas candidates. They were going to learn about one out of four countries by reading a description about that country. After that the participants were to rate the country on a competence and warmth scale for a manipulation check before proceeding to the next section.

The participants then read the food and beverage manager’s job description and a candidate resume from the country that they had just learned about.

After reviewing the job position and resume, the participants then completed the blatant hiring discrimination scale, the subtle hiring discrimination scale, the feeling thermometer scale, and supplied their demographic information.

Finally, the researchers collected the materials and participants were debriefed and thanked.

Study 2

Hypothesis 2:

Hypothesis 2 includes 7 hypotheses. Each hypothesis was separated into 5 sets according to the discrimination measures including the following:

(a) Blatant hiring discrimination measured by recommendation for the position

(b) Blatant hiring discrimination measured by starting salary rating

(c) Subtle hiring discrimination measured by perceived career advancement, perceived social fit with co-workers, and perceived social fit with customers

(d) Subtle hiring discrimination measured by probation placement discrimination

(e) Subtle hiring discrimination measured by probationary period discrimination

H2.1: The evaluator's mindset has a direct effect on blatant hiring discrimination (H2.1a, H2.1b) and subtle hiring discrimination (H2.1c, H2.1d, H2.1e) such that evaluators with a competitive mindset have higher blatant and subtle hiring discrimination than those with a cooperative mindset, when controlling for prejudice.

H2.2: The competence stereotype has a direct effect on blatant hiring discrimination (H2.2a, H2.2b) and subtle hiring discrimination (H2.2c, H2.2d, H2.2e) such that highly-competent candidates from high competence stereotyped countries receive lower blatant and subtle hiring discrimination compared to highly-competent candidates from low competence stereotyped countries, when controlling for prejudice.

H2.3: The warmth stereotype has a direct effect on blatant hiring discrimination (H2.3a, H2.3b) and subtle hiring discrimination (H2.3c, H2.3d, H2.3e) such that highly-competent candidates from high warmth stereotyped countries receive lower blatant and subtle hiring discrimination compared to highly-competent candidates from low warmth stereotyped countries, when controlling for prejudice.

H2.4: There is an interaction between the competence and warmth stereotype regarding blatant hiring discrimination (H2.4a, H2.4b) and subtle hiring discrimination (H2.4c, H2.4d, H2.4e) such that the effect of the competence stereotype on blatant and subtle hiring discrimination is greater among the high warmth stereotyped countries compared to the low warmth stereotyped countries, when controlling for prejudice. On the other hand the effect of the warmth stereotype on blatant and subtle hiring discrimination is greater among high competence stereotyped countries compare to low competence stereotyped countries, when controlling for prejudice.

H2.5: There is an interaction between the competence stereotype and the evaluator’s mindset regarding blatant hiring discrimination (H2.5a, H2.5b) and subtle hiring discrimination (H2.5c, H2.5d, H2.5e) such that the effect of the competence stereotype on blatant and subtle discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.

H2.6: There is an interaction between the warmth stereotype and the evaluator’s mindset regarding blatant hiring discrimination (H2.6a, H2.6b) and subtle hiring discrimination (H2.6c, H2.6d, H2.6e) such that the effect of the warmth stereotype on blatant and subtle discrimination is greater among evaluators with a competitive mindset compared to those with a cooperative mindset, when controlling for prejudice.

H2.7: Finally, there are interactions between the competence stereotype, the warmth stereotype, and the evaluator's mindset regarding blatant hiring discrimination (H2.7a, H2.7b) and subtle hiring discrimination (H2.7c, H2.7d, H2.7e) such that the effect of the competence stereotype on blatant and subtle discrimination is greater among the low warmth stereotyped group compared to high the warmth stereotyped group only among evaluators with competitive mindset, when controlling for prejudice. On the other hand, the effect of the competence stereotype on blatant and subtle discrimination is lower among the high warmth stereotype group compared to the low warmth stereotyped group only among evaluators with a cooperative mindset, when controlling for prejudice.

Hypothesis 3:

The effects of the competence and warmth stereotypes and the evaluators' mindset on blatant and subtle hiring discrimination can be partially explained by an increase in the participants' stringent evaluation standards for the candidates.

Research tools for Study 2

1) The evaluators' mindset toward the AEC was manipulated by asking the participants to read an article about the AEC that focused on competition between the AEC countries or cooperation between A the EC countries.
2) The warmth and competent stereotypes were manipulated using Singapore for the high warmth-high competence stereotype, Myanmar for the low

warmth-low competence stereotype, Laos for the high warmth-low competence stereotype, and Malaysia for the low warmth-high competence stereotype.

3) Blatant hiring discrimination was measured with 2 variables; recommendation for the job, and the starting salary for the candidate (Terpstra & Larsen, 1980).

4) The subtle hiring discrimination measurement was measured using 3 variables: subtle hiring discrimination (comprised career advancement potential and perceived social fit with co-workers and customers), probation placement discrimination, and the probation time discrimination.

5) The stringent evaluation standard was measured with the total items that the respondents selected from a list that convinced them that the candidate was competent (Biernat et al., 2010).

6) The prejudice level measurement was measured using the social distance scale (Brewer, 1968).

7) The same job post and candidate resume as in Study 1 were used.

Study 2 data collection

Participants were randomly assigned to the research conditions. First, the participants read the material introduction, which indicated that this study aimed to understand how people process information about overseas candidates. The respondents then read either a cooperative focus AEC article (cooperative mindset condition) or a competitive focus AEC article (competitive mindset condition). They then rated the manipulation check items before proceeding to the next section.

The respondents then read the food and beverage manager's job position and read a resume that included one of four conditions: the Singapore candidate (HC-HW condition), the Malaysian candidate (HC-LW condition), the Laos candidate (LC-HW condition), or the Myanmar candidate (LC-LW condition). They were asked to read the job description and the candidate's resume carefully before proceeding to the next step.

After that the participants answered the stringent evaluation standard question, rated the blatant hiring discrimination scale, the subtle hiring discrimination scale, and the probation items. All of the respondents then rated how they felt toward the citizen from the candidate's country on the competence and warmth scales for the manipulation check, completed the social distance scale, and gave their demographic information. Finally, the researcher collected the materials and the participants were debriefed and thanked.

Data Analysis

The analyses for Study 1 and Study 2 were performed using the SPSS, LISREL (Jöreskog & Sörbom, 2012), and PROCESS (Hayes, 2013) programs. Path analysis was used to test both studies' hypothesis.

Results

Data screening and transformation

1) Independent variables coding. The competence stereotype, warmth stereotype, and evaluators' mindset were coded using the indicator coding method.

2) Missing data treatments. In both studies, all of the dependent variable items had missing data less than 1% and they appeared to be random. The mean score replacement method was used to treat the missing data (Hair et al., 2010). The means and standard deviations of treated data were the same value as in the original data.

3) Test of normality and data transformation. All of the dependent variable items showed deviation from normality thus data transformations were carried out. The results from the original and transformed data were in line and thus the results from the original data were presented.

4) Outliers. The univariate outliers and multivariate outliers were assessed according to (Hair et al., 2010) guideline. All of the cases in both studies were retained.

5) Homoscedasticity. The Levene tests showed that the dependent variables exhibited equal levels of variance across the competence stereotype, the warmth stereotype, and evaluator's mindset groups and thus the data showed homoscedasticity.

6) Correlated errors. The dependent variables were tested against the participants' demographic variables. When significant differences were identified, the variables were included as additional covariates.

7) Linearity. Study 1 scatterplots showed a well-defined linear pattern while Study 2 data did not have a well-defined linear pattern in some variables. However, no nonlinear relationship was identified; thus the data were acceptable for the path analysis.

Study 1 results

The results from Study 1 revealed that the participants gave different hireability scores to the highly-competent candidates of the same profile but that came from different countries. The candidates received significantly different hireability ratings which showed that in Thailand's context perceivers express their discrimination openly.

Further investigation into the causes of discrimination revealed that the candidate's country stereotype predicted his or her hireability rating when the perceivers' level of prejudice was controlled for, which supported H1.1a.

In addition, analysis from the parsimonious model showed that the interaction between the two stereotype dimensions was significant in predicting blatant hiring discrimination, when controlling for prejudice. The effect of the competent stereotype on blatant hiring discrimination is greater among high warmth stereotyped groups compared to low warmth stereotyped groups, when controlling for prejudice. Thus H1.3a was supported.

However, the warmth stereotype did not affect the candidate's hireability when controlling for prejudice, which failed to support H1.2a.

As for the subtle hiring discrimination, Study 1 parsimonious model showed that when the prejudice effect was controlled for, the warmth stereotype had a significant direct effect on subtle hiring discrimination, which supported H1.2b. In addition, the alternative model demonstrated that prejudice mediated the effect of warmth stereotype on subtle hiring discrimination.

However, the competence stereotypes did not influence the evaluations of the candidate, which failed to support H1.1b. In addition, the detailed analysis on the subtle hiring discrimination did not show any interaction effect between the two dimensions on subtle hiring discrimination; thus H1.3b was not supported

Study 2 results

Cooperative versus competitive mindset

Counter to this study's hypothesis and evidence from past research (Bornstein et al., 1997; Esses et al., 1998), the results from Study 2 showed that the perceivers' cooperative or competitive mindset did not affect their hiring decisions in any of the five hiring discrimination measures and thus H2.1a, H2.1b, H2.1c, H2.1d, and H2.1e were not supported.

Recommendation discrimination

The results from Study 2 revealed that neither the country's competence nor warmth stereotypes affect the participants' recommendation when controlling for their level of prejudice, which failed to support H2.2a and H2.3a. The highly-competent candidates from Singapore, Myanmar, Laos, and Malaysia had equal chances to be recommended to the position, when controlling for the perceivers' level of prejudice.

In addition, there were no significant interaction effects between the two dimensions and the evaluators' mindset on the recommendation score, when controlling for the perceivers' level of prejudice. Thus H2.4a, H2.5a, 2.6a, and 2.7a were not supported.

Salary discrimination

The results showed that the country's competence stereotype had a significant direct effect on the salary rating, when controlling for prejudice, which supported

H2.2b. The participants gave a significantly lower starting salary to the Laos candidate compared to the candidate of the same profile from Singapore.

In addition, the parsimonious model showed that there was a significant interaction effect between the competence and the warm stereotypes in predicting the candidates' starting salary, when controlling for prejudice, which supported H2.4b. The effect of the competent stereotype on salary discrimination is greater among high warmth stereotyped groups compared to low warmth stereotyped groups, when controlling for prejudice. As a result the candidate from Laos received the lowest starting salary rating.

However, the warmth stereotype did not significantly predict the salary rating and there were no significant interaction effects between the two dimensions and evaluators' mindset on the salary rating score when controlling for the perceivers' level of prejudice, and thus H2.3b, H2.5b, 2.6b, and 2.7b were not supported.

Career advancement and perceived social fit with co-workers and customers

Study 2 revealed that when the prejudice effect was controlled for, the competence and the warmth stereotype did not have a significant effect on the evaluators' subtle hiring discrimination ratings. Thus H2.2c, H2.3c were not supported. Moreover, there were no significant interaction effects between the two dimensions and the evaluators' mindset on the subtle hiring discrimination score when the perceivers' prejudice was controlled for, and thus H2.4c, H2.5c, 2.6c, and 2.7c were also not supported.

In addition, in the alternative model that repositioned prejudice as a mediator, the warmth stereotype did not have a significant total effect on subtle hiring discrimination. This discrepancy, in which the warmth stereotype had a significant total and indirect effect on subtle hiring discrimination in Study but not in Study2, was expected to be a result of the lower effect size of the warmth stereotype manipulation in Study 2.

Probation placement and probation time

The results showed that the participants viewed that candidates from low competence countries needed to be on probation more than those from high competence countries when the prejudice and covariates variables were controlled for, which supported H2.2d.

However, the warmth stereotype, or the interactions between the stereotypes and the evaluators' mindset, did not significantly affect the probation placement rating when prejudice and covariates were controlled for. Thus H2.3d, H2.4d, H2.5d, H2.6, and H2.7d were not supported.

On the other hand, the participants' rating on probation time did not differ due to the competence stereotype, the warmth stereotype, or the interactions effects between the stereotypes and the evaluators' mindset. Thus none of the hypotheses regarding probation time was supported.

It should be noted that both probation items had a low correlation with other subtle hiring discrimination items, which indicated that the participants evaluated the probation items differently from the subtle hiring discrimination items. In addition, both probation variables suffered from correlated errors due to the participants' demographics; thus a variety of covariates were added to the analysis models.

Mediating effect of stringent evaluation standard

Study 2 findings did not support the stringent evaluation standard hypothesis (H3a, H3b, H3c, H3d, and H3e). Not only did the stringent standard evaluation not affect blatant and subtle hiring discrimination, it also did not mediate the effects of stereotypes on any of the five indicators of hiring discrimination. These results are in contrast with Biernat and colleagues' work (Biernat & Fuegen, 2001; Biernat & Kobrynowicz, 1997), which indicated that the counter-stereotypic target should be subjected to a stricter evaluation standard from the participants. This discrepancy may have been caused by the absence of an in-group effect as this study compared four out-groups, where the participants' in-group (Thai candidate) was not included in the comparison, while Biernat and colleagues' work compared an in-group with an out-group such as White candidates versus Black candidates, or male candidates versus female candidates.

Limitations and Areas for Future Research

The key limitation of this study was in selecting the country to represent the low warmth-high competence stereotyped group. In Study 2 Malaysia was used as the best available exemplar. Although the manipulation check from Study 2 showed that the warmth manipulation effect was qualified, the effect size of the warmth stereotype manipulation was significantly lower than in Study 1. This limitation may explain why in Study 2 the warmth stereotype had a lower effect and why the indirect effect of warmth did not reach a significance level. However, despite the lower effect size, the results of Study 2 were in line with the results from Study 1.

Another limitation was the low internal consistency of the items that were proposed as blatant hiring items and subtle hiring discrimination items in Study 2. As a result, single-item measurements were used in the path analysis model, including REC-DISCRIM, SLR-DISCRIM, PROBANEED, and PROBATIME. Although this situation is not ideal, the results from the multiple indicators did offer valuable insights into the manifestation of the discrimination in a variety of measurements.

The present study suggests several areas for future research. First, it should be noted that the study samples comprised university students; subsequent research on human resource professionals is still needed. Second, the stimuli used in both of the studies were limited to one job type and a male candidate. Future study should investigate if these effects can be replicated in other job contexts and when the candidate is a highly-competent female since this social group faces discrimination for behaving counter-stereotypically (Rudman, 1998; Rudman & Phelan, 2008). Third, further investigations on different interventions to specifically reduce the effect of the competence and warmth stereotype separately are needed. The mediation analysis results suggested that interventions that focus on one's beliefs about social stereotypes may be more suitable for controlling the effect of the competence stereotype on blatant hiring discrimination, while interventions that focus on reducing prejudice may be suitable for controlling the effect of the warmth stereotype on subtle hiring discrimination.

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APPENDIX

Appendix A:

Stereotype Manipulation Tool Development

คำสั่ง: กรุณาอ่านคำบรรยายเกี่ยวกับประเทศต่อไปนี้และตอบคำถาม

ประเทศ A [B/C/D]

ประเทศนี้ ประชาชนส่วนใหญ่มัก**ทำงานที่ได้ค่าตอบแทนสูง มีระดับการศึกษาสูง และประสบความสำเร็จด้านการเงิน** [ทำงานระดับแรงงาน มีระดับการศึกษาไม่สูงนัก และมักมีปัญหาด้านการเงิน] นอกจากนี้ประเทศนี้มักพยายาม**แข่งขันและแย่งเอาทรัพยากรจาก** [ไม่ชอบแข่งขันกับเพื่อนบ้านและมักแบ่งปันทรัพยากรให้] ประเทศเพื่อนบ้านอยู่เสมอ ทำให้คนจากประเทศนี้มักถูกบรรยายว่า **ฉลาด มีประสิทธิภาพ** [ไม่ฉลาด ประสิทธิภาพน้อย] **ชอบการแข่งขัน และเห็นแก่ตัว** [รักสงบ และใจกว้าง]

คำสั่ง: กรุณาตอบคำถามต่อไปนี้

1. คุณคิดว่าคนจากประเทศ A [B,C,D] นี้เป็นคนเป็นมิตรมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่เป็นมิตรเลย	ค่อนข้างไม่เป็นมิตร	ไม่เป็นมิตรเล็กน้อย	กลางๆ	เป็นมิตรเล็กน้อย	ค่อนข้างเป็นมิตร	เป็นมิตรอย่างมาก

2. คุณคิดว่าคนจากประเทศ A [B,C,D] นี้เป็นคนอบอุ่นมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่อบอุ่นเลย	ค่อนข้างไม่อบอุ่น	ไม่อบอุ่นเล็กน้อย	กลางๆ	อบอุ่นเล็กน้อย	ค่อนข้างอบอุ่น	อบอุ่นอย่างมาก

3. คุณคิดว่าคนจากประเทศ A [B,C,D] นี้เป็นคนเก่งมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่เก่งเลย	ค่อนข้างไม่เก่ง	ไม่เก่งเล็กน้อย	กลางๆ	เก่งเล็กน้อย	ค่อนข้างเก่ง	เก่งมาก

4. คุณคิดว่าคนจากประเทศ A [B,C,D] นี้เป็นคนมีความสามารถมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่มีความสามารถเลย	ค่อนข้างไม่มีความสามารถ	ไม่มีความสามารถเล็กน้อย	กลางๆ	มีความสามารถเล็กน้อย	ค่อนข้างมีความสามารถ	มีความสามารถเลยอย่างมาก

Figure A1. Study 1 stereotype manipulation tool pretest material.

Table A1

Means and Standard Deviations for Warmth Rating as a Function of Competence and Warmth Manipulation

Warmth rating		Warmth manipulation		
		High	Low	Total
		M (*SD*)	*M* (*SD*)	*M* (*SD*)
Competence manipulation	High	5.43 (0.90)	3.00 (0.93)	4.22 (1.53)
	Low	6.13 (0.48)	3.20 (1.11)	4.67 (1.71)
	Total	5.78 (0.80)	3.10 (1.01)	4.44 (1.63)

Table A2

Summary Table for Two-Way Analysis of Variance of the Effects of Competence and Warmth Manipulation on Warmth Rating

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
Warmth manipulation	1	108.00	108.00	137.25	.00	.710
Competence manipulation	1	3.04	3.04	3.86	.05	.064
Warmth x Competence	1	0.94	0.94	1.19	.28	.021
Error	56	44.07	0.79			

Table A3

Means and Standard Deviations for Competence Rating as a Function of Competence and Warmth Manipulation

Competence rating		Warmth manipulation		
		High	Low	Total
		M (*SD*)	*M* (*SD*)	*M* (*SD*)
Competence manipulation	High	5.77 (1.02)	5.80 (0.46)	5.78 (0.77)
	Low	3.40 (0.83)	3.73 (1.21)	3.57 (1.03)
	Total	4.58 (1.51)	4.77 (1.38)	4.68 (1.44)

Table A4

Summary Table for Two-Way Analysis of Variance of the Effects of Competence and Warmth Manipulation on Competence Rating

Source	*df*	*SS*	*MS*	*F*	*p*	η^2
Warmth manipulation	1	0.50	0.50	0.60	.44	.011
Competence manipulation	1	73.70	73.70	87.14	.00	.609
Warmth x Competence	1	0.34	0.34	0.40	.53	.007
Error	56	47.37	0.85			

Appendix B:

Highly-Competent Candidate Resume Development

Aston Hotel Bangkok

รับสมัคร: ผู้จัดการแผนกอาหารและเครื่องดื่ม (Food & Beverage Manager)

หน้าที่รับผิดชอบ

วางแผนและบริหารจัดการแผนกอาหารและเครื่องดื่มซึ่งครอบคลุม ร้านอาหารของโรงแรม ศูนย์จัดเลี้ยงและประชุม บาร์ริมสระว่ายน้ำและบริการอาหารในห้องพัก

เป็นผู้วางเป้าการขาย แผนงบประมาณ แผนการบริการและการจัดการที่เกี่ยวกับอาหารและเครื่องดื่มทั้งหมดของโรงแรม จัดการทรัพยากรบุคคลของแผนกอาหารและเครื่องดื่ม (คัดเลือก ฝึกอบรม และประเมินพนักงาน) เพื่อให้ได้ตามมาตรฐานการบริการของโรงแรม และดูแลการดำเนินงานให้เป็นไปตามกฎและข้อบังคับด้านอนามัยและความปลอดภัย

คุณสมบัติผู้สมัคร

- ระดับการศึกษา ปริญญาตรีขึ้นไป ด้านการจัดการโรงแรม,การท่องเที่ยว หรือที่เกี่ยวข้อง
- มีประสบการณ์โดยตรง หรือที่เกี่ยวข้องอย่างน้อย 5 ปีขึ้นไปกับโรงแรม 4-5 ดาว
- สื่อสารภาษาอังกฤษได้ดีเยี่ยม
- มีความสามารถในการวางแผนจัดการ และมีมนุษยสัมพันธ์ดี
- มีความเป็นผู้นำ มีประสบการณ์ในการนำทีมเพื่อให้บรรลุเป้าหมาย
- สัญชาติไทย หรือประชาชนของประเทศสมาชิกกลุ่ม AEC ผู้มีใบอนุญาตทำงานในประเทศไทย

เงินเดือน: ตามประสบการณ์

สถานะ: พนักงานประจำ

สถานที่ตั้ง: กรุงเทพฯ ประเทศไทย

เกี่ยวกับผู้ว่าจ้าง:

โรงแรม Aston Hotel Bangkok เป็นโรงแรมระดับ 5 ดาว จากยุโรป มี 120 สาขาใน 40 ประเทศทั่วโลก สาขาในประเทศไทยจะเปิดให้บริการใน ปี 2559 ซึ่งจะให้บริการห้องพัก 350 ห้อง ร้านอาหารไทย ร้านอาหารตะวันตก คลับเลาจ์ สปา บาร์ริมสระว่ายน้ำ และบริการจัดเลี้ยงและประชุม

Figure B1. Job advertisement.

ข้อมูลโดยสรุปของผู้สมัครตำแหน่ง Food & Beverage Manager
ผู้สมัครคนที่ 1

ข้อมูลส่วนตัว

เพศ:	ชาย	อายุ:	31 ปี
อายุงาน:	8 ปี	การศึกษา:	ปริญญาตรี
สัญชาติ:	...	ใบอนุญาตทำงาน:	มีใบอนุญาตทำงานในประเทศไทย

ประสบการณ์การทำงาน

Food & Beverage Manager — ก.ค. 2014 – **ปัจจุบัน**
โรงแรม 4 ดาว, 220 ห้องพัก — 1 ปี 4 เดือน

- ดูแลร้านอาหาร 2 ร้าน บาร์ 1 แห่ง ส่วนจัดเลี้ยง และรูมเซอร์วิส
- กำหนดเป้าหมายของแผนก และวางแผนการดำเนินงานของทุกฝ่ายให้เป็นไปตามเป้าหมาย
- มอบหมายงานให้พนักงานในแผนก จัดการอบรม และประเมินผลการทำงานของพนักงานในแผนก
- ควบคุมต้นทุน และยอดขายอาหารและเครื่องดื่มของโรงแรม ทั้งส่วนร้านอาหารและส่วนจัดเลี้ยง

Assistance Food & Beverage Manager — ก.ค. 2010 – มิ.ย. 2014
โรงแรม 4 ดาว, 220 ห้องพัก — 4 ปี 0 เดือน

- ผู้ช่วยผู้จัดการแผนกอาหารและเครื่องดื่ม ในการตรวจสอบคุณภาพ และปริมาณอาหารและเครื่องดื่มของโรงแรม
- วางแผนและดูแลเรื่องการเข้างานของพนักงานเพื่อให้มีทรัพยากรบุคคลเพียงพอกับการให้บริการ
- แก้ปัญหา บันทึกและปรับปรุง เมื่อมีการร้องเรียนจากลูกค้า

Marketing & Reservation Coordinator — ก.ย. 2007 – เม.ย.2010
บริษัทจำหน่ายและจองตั๋วทัวร์และสถานที่ท่องเที่ยว — 2 ปี 8 เดือน

- วางแผนการท่องเที่ยว ทำราคาและวางแผนการขาย
- ดูแลประสานงานกับสถานที่ท่องเที่ยว ที่พัก และร้านอาหารต่างๆ

ทักษะ

- โปรแกรมด้านการจัดการของโรงแรม (OPERA/MICROS)
- MS Words, Excel
- ภาษาอังกฤษ: ดีเยี่ยม

Figure B2. Highly-competent candidate resume 1.

ข้อมูลโดยสรุปของผู้สมัครตำแหน่ง Food & Beverage Manager
ผู้สมัครคนที่ 2

ข้อมูลส่วนตัว

เพศ:	ชาย	อายุ:	30 ปี
อายุงาน:	7 ปี	การศึกษา:	ปริญญาตรี
สัญชาติ:	-	มีใบอนุญาตทำงานในประเทศไทย	

ประสบการณ์การทำงาน

Assistant Food & Beverage Manager	**ต.ค.** 2013 – **ปัจจุบัน**
โรงแรม 4 ดาว, จำนวนห้องพัก 200 ห้อง	2 ปี

- วางแผนและดูแลการขายอาหารและเครื่องดื่มของทั้งโรงแรมร่วมกับผู้จัดการแผนกฯ
- ตรวจสอบและดูแลสินค้าคงเหลือ อุปกรณ์ และทรัพยากรบุคคลว่ามีเพียงพอและมีคุณภาพ
- จัดตารางการทำงานและ ฝึกอบรมพนักงานในแผนกฯ
- รายงานยอดขายให้ผู้จัดการแผนกฯ เสนอแนวคิดเพื่อเพิ่มยอดขาย คอยรับฟังปัญหาและแก้ปัญหาให้ลูกค้า

Restaurant Manager	**ส.ค.** 2010 – **ก.ย.** 2013
ร้านอาหารฟิวชั่นเอเชีย-ตะวันตก, โรงแรม 4 ดาว	3 ปี 1 เดือน

- บริหารงานร้านอาหารของโรมแรม ดูแลให้มีพนักงานอย่างเพียงพอ บริหารกะเวลาทำงานของพนักงาน
- ดูและต้นทุนและกำไร ให้ร้านอาหารมียอดขายตามเป้า ดูแลพื้นที่ขายให้มีประสิทธิภาพที่สุด
- คอยดูแลลูกค้าที่มาทานอาหารเพื่อให้มั่นใจว่าลูกค้าพอใจกับบริการ

Restaurant Attendant	**มี.ค.** 2009 – **พ.ค.** 2010
ร้านอาหารในรีสอร์ทระดับ 3 ดาว	1 ปี 3 เดือน

- ต้อนรับและแนะนำตอบคำถามลูกค้า ที่มารับประทานอาหารและใช้ห้องจัดเลี้ยง
- เก็บโต๊ะ จัดเตรียมโต๊ะและเสริฟอาหาร

ทักษะ

- F&B POS Software (Micros, Raptor)
- MS Words, Excel, PowerPoint
- ภาษาอังกฤษ: ดีเยี่ยม

Figure B3. Highly-competent candidate resume 2.

ข้อมูลโดยสรุปของผู้สมัครตำแหน่ง Food & Beverage Manager
ผู้สมัครคนที่ 3

ข้อมูลส่วนตัว

เพศ:	ชาย	อายุ:	29 ปี
อายุงาน:	7 ปี	การศึกษา:	ปริญญาตรี

ใบอนุญาตทำงาน: มีใบอนุญาตทำงานในประเทศไทย

ประสบการณ์การทำงาน

Food & Beverage Manager — เม.ย. 2012 – ปัจจุบัน

โรงแรม 3.5 ดาว, จำนวนห้องพัก 280 ห้อง — 3 ปี 7 เดือน

- รับเป้าหมายจากโรงแรม และวางแผนดำเนินงานของแผนก F&B เพื่อให้ได้ตามเป้าหมาย
- มอบหมายงานให้ผู้ใต้บังคับบัญชา จัดฝึกอบรมเพื่อพัฒนาบุคลากร ประเมินผลการปฏิบัติงานของผู้ใต้บังคับบัญชา
- รับทราบความต้องการของแขกที่มาใช้บริการ
- ดูแลให้การบริการเป็นไปตามกฎระเบียบด้านความปลอดภัยและสุขอนามัย

Food & Beverage Manager — ก.ย. 2009 – ธ.ค. 2012

โรงแรม 3 ดาว, จำนวนห้อง 120 ห้อง — 2 ปี 4 เดือน

- รับผิดชอบอาหารแลเครื่องดื่มของโรงแรม เช็คและสั่งสต๊อก
- ดูแลการหมุนเวียนของพนักงานที่เตรียมและ เสริฟอาหาร
- คิดเมนู และแพคเก็จต่างๆ ในช่วงเทศกาลเพื่อเพิ่มยอดขาย

Sales executive — ก.ค. 2008 – ส.ค. 2010

โรงแรม 3 ดาว, จำนวนห้อง 120 ห้อง — 1 ปี 1 เดือน

- พนักงานขายห้องพักและบริการจัดเลี้ยงของโรงแรม
- รับความต้องการและเสนอแพคเก็จให้กับลูกค้าที่ติดต่อเข้ามา
- ทำการขายด้วยการโทรศัพท์ติดต่อลูกค้ากลุ่มเป้าหมาย

ทักษะ

- Front office Software (Opera), F&B Software (Micros)
- MS office (Words, Excel)
- ภาษาอังกฤษ: ดีเยี่ยม

Figure B4. Highly-competent candidate resume 3.

ข้อมูลโดยสรุปของผู้สมัครตำแหน่ง Food & Beverage Manager
ผู้สมัครคนที่ 4

ข้อมูลส่วนตัว

เพศ:	ชาย	อายุ:	28 ปี
อายุงาน:	7 ปี	การศึกษา:	ปริญญาตรี

ใบอนุญาตทำงาน: มีใบอนุญาตทำงานในประเทศไทย

ประสบการณ์การทำงาน

Food & Beverage Manager — **พ.ค. 2011 – ปัจจุบัน**

โรงแรม 3 ดาว, 83 ห้องพัก — 4 ปี 6 เดือน

- ดูและร้านอาหารอิตาเลียน ไทย ไอริชผับ ห้องจัดเลี้ยงและรูมเซอร์วิส
- รับผิดชอบงบประมาณประจำปี วางแผนงานของแผนกทั้งปี และ A&P
- มีผลงานนำเสนอเมนูอาหารเพื่อสุขภาพให้สปาและร้านอาหาร เพื่อดึงดูลูกค้าที่สนใจการดูแลสุขภาพ
- จัดงาน event เพื่อโปรโมทโรงแรมและร้านอาหารเช่น river side concert

Manager/Executive chef — เม.ย. 2009 – เม.ย.2011

เครือร้านอาหารและโรงงาน มีสาขาในสิงคโปร์ อินโดนีเซีย จีน และอเมริกา — 1 ปี 1 เดือน

- ประจำสาขาประเทศอินโดนีเซีย ดูแลส่วนการผลิตอาหารและหน้าร้านอาหาร
- วางแผนงานประจำปี A&P และดูแลยอดขายให้เป็นไปตามเป้า
- รายงานการขายและดูและให้การผลิตและบริการเป็นไปตามมาตรฐานของบริษัทแม่
- มีผลงานทางสื่อ PR นำเสนอเมนูอาหารแปลกใหม่ จังงาน catering ให้กับ event ที่สำคัญของทางราชการ

F&B Assistant Manager — พ.ค. 2008 – เม.ย. 2009

เครือโรงหนังและร้านอาหาร — 11 เดือน

- ดูแลลูกค้าที่มาซื้ออาหารก่อนดูหนัง และลูกค้าร้านอาหาร
- ดูและสต๊อกอาหารและเครื่องดื่ม สินข้าของที่ระลึก

ทักษะ

- Financial planning
- มีความรู้ด้านการประกอบอาหาร และคิดเมนูอาหาร
- MS Words, Excel
- ภาษาอังกฤษ: ดีเยี่ยม

Figure B5. Highly-competent candidate resume 4.

คำสั่ง: กรุณาตอบคำถามต่อไปนี้

1. คุณคิดว่ามีความเป็นไปได้แค่ไหนที่คุณจะเรียกผู้สมัครคนที่ 1 [2,3,4] มาสัมภาษณ์

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปได้	กลางๆ	ค่อนข้างเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

2. คุณคิดว่ามีความเป็นไปได้แค่ไหนที่ผู้สมัครคนที่ 1 [2,3,4] จะถูกว่าจ้าง

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปได้	กลางๆ	ค่อนข้างเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

3. หากคุณเป็นผู้มีอำนาจตัดสินใจ มีความเป็นไปได้แค่ไหนที่คุณจะว่าจ้างผู้สมัครคนที่ 1 [2,3,4] สำหรับงานนี้

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปได้	กลางๆ	ค่อนข้างเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

Figure B6. Hireability rating items.

Table B1

Means and Standard Deviations of Hireability Rating of Four Resumes

Resume	Hireability scale rating	
	M	*SD*
Resume 1 [1]	4.73	0.71
Resume 2 [2]	4.91	0.70
Resume 3 [3]	3.98	0.61
Resume 4 [4]	4.29	1.01
Post hoc	1 = 2 = 4, 2 > 3	

Note. The numbers in square brackets in column heads refer to the numbers used for illustrating significant differences in the "Post hoc" row.

Appendix C:

Mindset Manipulation Tool Development

<u>คำสั่ง</u> กรุณาอ่าน เอกสารโดยละเอียด หลังจากอ่านเอกสารแล้ว กรุณาตอบคำถามท้ายบทความอย่างตรงไปตรงมา

AEC และการร่วมมือกันในตลาดอาเซียน

[AEC และการแข่งขันในตลาดแรงงานอาเซียน]

ประชาคมเศรษฐกิจอาเซียนหรือ ASEAN Economics Community (AEC) คือการรวมตัวของ10 ประเทศ คือ ไทย, พม่า, ลาว, เวียดนาม, มาเลเซีย, สิงคโปร์, อินโดนีเซีย, ฟิลิปปินส์, กัมพูชา, บรูไน เพื่อที่จะให้มีผลประโยชน์ทางเศรษฐกิจร่วมกัน โดยการรวมตัวเป็นประชาคมเศรษฐกิจอาเซียนได้มีผลเป็นรูปธรรม ในวันที่ 31 ธันวาคม 2558 ที่ผ่านมา

ผลกระทบของ AEC ต่อประเทศไทย โอกาสของคนไทย

[ผลกระทบของ AEC ต่อประเทศไทย ความเสี่ยงของคนไทย]

การเปิดประชาคมเศรษฐกิจอาเซียนถูกมองว่าเป็นโอกาส [ความเสี่ยง] ต่อประชาชนชาวไทย การรวมตัวกันครั้งนี้จะทำให้เกิดเคลื่อนย้ายอย่างเสรีของแรงงานระดับวิชาชีพ ความยุ่งยากในการทำเอกสารขออนุญาตทำงานสำหรับชาวต่างชาติ (Work Permits) จะลดลง การจ้างแรงงานที่มีความสามารถสูงจากต่างประเทศจะทำได้ง่ายขึ้น

การเปิดตลาดเสรีจะเพิ่มจำนวนแรงงานระดับสูงในตลาดแรงงาน และทำให้แรงงานสมัครเข้าทำงานในประเทศสมาชิกฯ ได้อย่างอิสระ ทำให้เกิดความเป็นฐานการผลิตรวมขนาดใหญ่จากจำนวนประชากรในภูมิภาคนี้ที่รวมกันถึง 580 ล้านคน ส่งผลให้ประเทศในอาเซียนมีอำนาจต่อรองกับนานาชาติมากขึ้น นำไปสู่การยกระดับการพัฒนาทางเศรษฐกิจและสังคมของประเทศสมาชิกฯในที่สุด

[การเปิดตลาดเสรีจะเพิ่มจำนวนแรงงานระดับสูงในตลาดแรงงาน และเพิ่มอัตราการแข่งขันกับแรงงานในประเทศไทยด้วย เพราะจากจำนวนประชากรในภูมิภาคนี้ที่รวมกันถึง 580 ล้านคน จะมีคนทำงานที่มีความรู้ความสามารถสูง และเก่งภาษา เข้ามาสมัครงานในประเทศไทยเพิ่มมากขึ้น ทำให้แรงงานไทยต้องพัฒนาฝีมือเพื่อรองรับการแข่งขันนี้]

คำสั่ง: กรุณาตอบคำถามต่อไปนี้โดยวงกลมรอบคำตอบที่ตรงกับความคิดเห็นของคุณมากที่สุด

1. คุณคิดว่าบทความนี้มีเนื้อหาเน้นไปในทิศทางใดต่อไปนี้

1	2	3	4	5	6	7
เน้นการแข่งขัน อย่างมาก	ค่อนข้างเน้น การแข่งขัน	เน้นการแข่งขัน เล็กน้อย	กลางๆ	เน้นการร่วมมือ เล็กน้อย	ค่อนข้างเน้น การรวมมือ	เน้นการร่วมมือ อย่างมาก

2. คุณคิดว่าแรงงานจากประเทศกลุ่ม AEC จะเป็นประโยชน์หรือผลเสียกับประเทศไทยมากน้อยเพียงใด

1	2	3	4	5	6	7
เป็นผลเสีย อย่างมาก	ค่อนข้างเป็น ผลเสีย	เป็นผลเสีย เล็กน้อย	กลางๆ	เป็นประโยชน์ เล็กน้อย	ค่อนข้างเป็น ประโยชน์	เป็นประโยชน์ อย่างมาก

Figure C1. Study 2 Mindset manipulation tool and manipulation check items.

Table C1

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Mindset Manipulation on Dependent Variables

Variable	Competitive mindset (n = 49)	Cooperative mindset (n = 48)	*F(1,95)*	p	η^2
	M (SD)	M (SD)			
Article valence	5.24 (1.49)	3.27 (1.58)	39.98	.00	.296
Threat level	4.53 (1.54)	3.90 (1.43)	4.41	.04	.044

Note. The scores of both items were reversed so that higher score reflect negative valences.

Appendix D:

Country Manipulation Recall

Table D1

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Recall and Non Recall Condition on Dependent Variables

Variable	Non recall condition (n = 38)	Recall condition (n = 48)	$F(1, 85)$	p	η^2
	M (SD)	M (SD)			
BLATANT	2.42 (0.80)	2.55 (0.96)	.43	.51	.005
SUBTLE	2.68 (0.72)	2.60 (0.60)	.36	.55	.004
PJDSDS	2.99 (1.26)	3.01 (1.06)	.01	.93	.000

Appendix E:

Study 1 Final Research Material

โครงการวิจัย: การศึกษากระบวนการพิจารณาเอกสารและการว่าจ้างผู้สมัครจากต่างประเทศ

เพื่อให้สอดคล้องกับการเปิดตลาดแรงงานหลังจากการเข้าร่วม AEC องค์กรในประเทศไทยจึงมีความต้องการศึกษาเกี่ยวกับการว่าจ้างงานผู้สมัครจากต่างประเทศ เพื่อนำมาใช้ปรับปรุงระบบการว่าจ้างและการพิจารณาผู้สมัครให้มีประสิทธิภาพยิ่งขึ้น การวิจัยนี้จึงถูกริเริ่มขึ้น เพื่อศึกษาว่าคนไทยตอบสนองต่อข้อมูลของบุคคลอื่นอย่างไร และมีแนวทางในการประเมิน และทำความเข้าใจเกี่ยวกับคุณสมบัติของคนจากประเทศต่างๆ อย่างไร

การวิจัยนี้มีเอกสารทั้งหมดมี 3 ส่วน ประกอบไปด้วย

เอกสาร 1 : งานที่เปิดรับสมัคร

เอกสาร 2 : ข้อมูลเกี่ยวกับผู้สมัครและประเทศของผู้สมัคร

เอกสาร 3 : มาตรวัดการตัดสินใจว่าจ้าง และเจตคติ

กรุณาอ่าน เอกสาร 1 ซึ่งประกอบด้วยตำแหน่งงานที่เปิดรับสมัครโดยละเอียด จากนั้นกรุณาอ่านเอกสาร 2 ซึ่งประกอบไปด้วย คำบรรยายเกี่ยวกับประเทศ และเอกสารสมัครงานของผู้สมัครจากประเทศนี้ หลังจากนั้นในเอกสาร 3 กรุณาตอบคำถามเกี่ยวกับการตัดสินใจของคุณอย่างตรงไปตรงมา

เอกสาร 1 : งานที่เปิดรับสมัคร

Aston Hotel Bangkok

รับสมัคร:ผู้จัดการแผนกอาหารและเครื่องดื่ม (Food & Beverage Manager)

หน้าที่รับผิดชอบ

รับผิดชอบการวางแผนและบริหารจัดการแผนกอาหารและเครื่องดื่มของโรงแรมซึ่งครอบคลุม ร้านอาหารและเครื่องดื่มของโรงแรม ศูนย์จัดเลี้ยงและประชุม บาร์ริมสระว่ายน้ำดาดฟ้า และบริการอาหารในห้องพัก

เป็นผู้วางเป้าการขาย แผนงบประมาณ การบริการและการจัดการที่เกี่ยวกับอาหารและเครื่องดื่มทั้งหมดของโรงแรม รวมทั้งจัดการทรัพยากรบุคคลของแผนกอาหารและเครื่องดื่ม ทั้งการคัดเลือก ฝึกอบรม และประเมินพนักงานเพื่อให้ได้ตามมาตรฐานการบริการของโรงแรม นอกจากนี้ยังมีหน้าที่ดูแลการดำเนินงานให้เป็นไปตามกฎและข้อบังคับด้านอนามัยและความปลอดภัยต่างๆ ด้วย

คุณสมบัติผู้สมัคร

- ระดับการศึกษา ปริญญาตรีขึ้นไป ด้านการจัดการโรงแรม, การท่องเที่ยว หรือที่เกี่ยวข้อง
- มีประสบการณ์โดยตรง หรือที่เกี่ยวข้องอย่างน้อย 5 ปีขึ้นไปกับโรงแรม 4-5 ดาว
- สื่อสารภาษาอังกฤษได้ดีเยี่ยม
- มีความสามารถในการวางแผนจัดการ และมีมนุษยสัมพันธ์ดี
- มีความเป็นผู้นำ มีประสบการณ์ในการนำทีมเพื่อให้บรรลุเป้าหมายได้
- สัญชาติไทย หรือประชาชนของประเทศสมาชิกกลุ่ม AEC ผู้มีใบอนุญาตทำงานในประเทศไทย

เงินเดือน: *ตามประสบการณ์*

สถานะ: พนักงานประจำ

สถานที่ตั้ง: กรุงเทพฯ ประเทศไทย

เกี่ยวกับผู้ว่าจ้าง:

โรงแรม Aston Hotel Bangkok เป็นโรงแรมเครือนานาชาติระดับ 5 ดาว จากยุโรป มี 120 สาขาใน 40 ประเทศทั่วโลก สาขาในประเทศไทยจะเปิดให้บริการในเดือน เมษายน ปี 2559 ซึ่งจะให้บริการห้องพัก 350 ห้อง ร้านอาหารไทยและร้านอาหารตะวันตก คลับเลาจ์สปา บาร์ริมสระว่ายน้ำ และให้บริการจัดเลี้ยงประจัดประชุมครบวงจร

เอกสาร 2 : เกี่ยวกับผู้สมัครและประเทศของผู้สมัคร

ประเทศ A [B/C/D]

ประเทศนี้ ประชาชนส่วนใหญ่มัก**ทำงานที่ได้ค่าตอบแทนสูง มีระดับการศึกษาสูง และประสบความสำเร็จด้านการเงิน** [ทำงานระดับแรงงาน มีระดับการศึกษาไม่สูงนัก และมักมีปัญหาด้านการเงิน] นอกจากนี้ประเทศนี้มักพยายาม**แข่งขันและแย่งเอาทรัพยากรจาก** [ไม่ชอบแข่งขันกับเพื่อนบ้านและมักแบ่งปันทรัพยากรให้] ประเทศเพื่อนบ้านอยู่เสมอ ทำให้คนจากประเทศนี้มักถูกบรรยายว่า **ฉลาด มีประสิทธิภาพ** [ไม่ฉลาด ประสิทธิภาพน้อย] **ชอบการแข่งขัน และเห็นแก่ตัว** [รักสงบ และใจกว้าง]

กรุณาตอบคำถามต่อไปนี้เกี่ยวกับประเทศของผู้สมัคร

1. คุณคิดว่าคนจากประเทศนี้เป็นคนเป็นมิตรมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่เป็นมิตรเลย	ค่อนข้างไม่เป็นมิตร	ไม่เป็นมิตรเล็กน้อย	กลางๆ	เป็นมิตรเล็กน้อย	ค่อนข้างเป็นมิตร	เป็นมิตรอย่างมาก

2. คุณคิดว่าคนจากประเทศนี้เป็นคนอบอุ่นมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่อบอุ่นเลย	ค่อนข้างไม่อบอุ่น	ไม่อบอุ่นเล็กน้อย	กลางๆ	อบอุ่นเล็กน้อย	ค่อนข้างอบอุ่น	อบอุ่นอย่างมาก

3. คุณคิดว่าคนจากประเทศนี้เป็นคนเก่งมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่เก่งเลย	ค่อนข้างไม่เก่ง	ไม่เก่งเล็กน้อย	กลางๆ	เก่งเล็กน้อย	ค่อนข้างเก่ง	เก่งมาก

4. คุณคิดว่าคนจากประเทศนี้เป็นคนมีความสามารถมากน้อยเพียงใด

1	2	3	4	5	6	7
ไม่มีความสามารถเลย	ค่อนข้างไม่มีความสามารถ	ไม่มีความสามารถเล็กน้อย	กลางๆ	มีความสามารถเล็กน้อย	ค่อนข้างมีความสามารถ	มีความสามารถเลยอย่างมาก

ข้อมูลโดยสรุปของผู้สมัคร ตำแหน่ง Food & Beverage Manager

ข้อมูลส่วนตัว

เพศ:	ชาย	อายุ:	30 ปี
อายุงาน:	7 ปี	การศึกษา:	ปริญญาตรี
สัญชาติ:	ประเทศ A [B/C/D]		

ประสบการณ์การทำงาน

Assistant Food & Beverage Manager — **ต.ค.** 2013 – **ปัจจุบัน**

โรงแรม 4 ดาว, จำนวนห้องพัก 200 ห้อง — 2 ปี

- ทำงานร่วมกับผู้จัดการแผนกฯ ในการวางแผนและดูแลการขายอาหารและเครื่องดื่มของทั้งโรงแรม
- ตรวจสอบและดูแลสินค้าคงเหลือ อุปกรณ์ และทรัพยากรบุคคลว่ามีเพียงพอและมีคุณภาพ
- จัดตารางการทำงานและ ฝึกอบรมพนักงานในแผนกฯ
- รายงานยอดขายให้ผู้จัดการแผนกฯ และเสนอแนวคิดเพื่อเพิ่มยอดขาย คอยรับฟังปัญหาและแก้ปัญหาให้ลูกค้า

Restaurant Manager — **ส.ค.** 2010 – **ก.ย.** 2013

ร้านอาหารฟิวชั่นไทย-ตะวันตก, โรงแรม 4 ดาว — 3 ปี 1 เดือน

- บริหารงานร้านอาหารของโรมแรม ดูแลให้มีพนักงานอย่างเพียงพอ บริหารกะเวลาทำงานของพนักงาน
- ดูและต้นทุนและกำไร ให้ร้านอาหารมียอดขายตามเป้า ดูแลพื้นที่ขายให้มีประสิทธิภาพที่สุด
- คอยดูแลลูกค้าที่มาทานอาหารเพื่อให้มั่นใจว่าลูกค้าพอใจกับบริการ

Restaurant Attendant — **มี.ค.** 2009 – **พ.ค.** 2010

ร้านอาหารในรีสอร์ทระดับ 3 ดาว — 1 ปี 3 เดือน

- ต้อนรับและแนะนำตอบคำถามลูกค้า ที่มารับประทานอาหารและใช้ห้องจัดเลี้ยง
- เก็บโต๊ะ จัดเตรียมโต๊ะและเสริฟอาหาร

ทักษะ

- F&B POS Software (Micros, Raptor)
- MS Words, Excel, PowerPoint
- ภาษาอังกฤษ: ดีเยี่ยม

เอกสาร 3 : มาตรวัดการตัดสินใจ และเจตคติ

คำสั่ง: หลังจากได้อ่านตำแหน่งที่เปิดรับสมัคร และใบสมัครโดยย่อแล้ว กรุณาตอบคำถามต่อไปนี้โดยวงกลมรอบคำตอบที่ตรงกับความคิดเห็นของคุณมากที่สุด

1. คุณคิดว่ามีความเป็นไปได้แค่ไหนที่คุณจะเรียกผู้สมัครรายนี้มาสัมภาษณ์?

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปได้	กลางๆ	ค่อนข้างเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

2. คุณคิดว่ามีความเป็นไปได้แค่ไหนที่ผู้สมัครรายนี้จะถูกว่าจ้าง?

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปได้	กลางๆ	ค่อนข้างเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

3. มีความเป็นไปได้แค่ไหนที่คุณจะว่าจ้างผู้สมัครรายนี้สำหรับงานนี้?

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปได้	กลางๆ	ค่อนข้างเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

4. คุณมีความมั่นใจมากน้อยเพียงใดในการตัดสินใจของคุณ?

1	2	3	4	5	6	7
ไม่มั่นใจเลย	ไม่มั่นใจ	ค่อนข้างไม่มั่นใจ	กลางๆ	ค่อนข้างมั่นใจ	มั่นใจ	มั่นใจอย่างมาก

5. คุณคิดว่าผู้สมัครจะเข้ากับพนักงานคนอื่นได้ดีมากน้อยเพียงใด?

1	2	3	4	5	6	7
เข้าไปไม่ได้เลย	เข้าไปไม่ได้	ไม่น่าเข้าได้	กลางๆ	น่าจะเข้าได้	เข้าได้	เข้าได้แน่นอน

6. คุณคิดว่าผู้สมัครจะสามารถเข้ากับลูกค้าได้ดีมากน้อยเพียงใด?

1	2	3	4	5	6	7
เข้าไปไม่ได้เลย	เข้าไปไม่ได้	ไม่น่าเข้าได้	กลางๆ	น่าจะเข้าได้	เข้าได้	เข้าได้แน่นอน

7. คุณคิดว่าผู้สมัครจะประสบความสำเร็จในตำแหน่งงานนี้มากน้อยเพียงใด?

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปไม่ได้	กลางๆ	น่าจะเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

เกี่ยวกับประเทศของผู้สมัคร

8. กรุณาทำเครื่องหมายกากบาทบนสเกลนี้ ที่ตรงกับความรู้สึกของคุณต่อคนจากประเทศ A [B/C/D] เมื่อ 0 คือคุณรู้สึกเย็นชา ไม่ชอบ และ 100 คือคุณรู้สึกอบอุ่นเป็นมิตร และชื่นชอบ

0 10 20 30 40 50 60 70 80 90 100

ฉันรู้สึกเย็นชา ไม่ชอบ　　　　ฉันรู้สึกอบอุ่น เป็นมิตร ชื่นชอบ

กรุณากรอกข้อมูลส่วนตัว

1. เพศ ☐ ชาย ☐ หญิง

2. ไม่ทราบว่าคุณอายุเท่าใดคะ/ครับ อายุ...................ปี

3. สถานภาพสมรส

   ☐ โสด ☐ สมรส ☐ หย่า ☐ หม้าย ☐ แยกกันอยู่

4. กรุณาระบุระดับการศึกษาปัจจุบัน

   ☐ ปริญญาตรี ☐ ปริญญาโท ☐ ปริญญาเอก

5. คณะ/สถาบัน..................................สาขา/ภาควิชา..................................ชั้นปีที่ ....

6. คุณมีคนรู้จัก หรือใกล้ชิด มาจากประเทศต่อไปนี้หรือไม่?

   1) คนบรูไน ☐ ใช่ ☐ ไม่ใช่
   2) คนกัมพูชา ☐ ใช่ ☐ ไม่ใช่
   3) คนอินโดนีเซีย ☐ ใช่ ☐ ไม่ใช่
   4) คนลาว ☐ ใช่ ☐ ไม่ใช่
   5) คนมาเลเซีย ☐ ใช่ ☐ ไม่ใช่
   6) คนพม่า ☐ ใช่ ☐ ไม่ใช่
   7) คนฟิลิปปินส์ ☐ ใช่ ☐ ไม่ใช่
   8) คนสิงคโปร์ ☐ ใช่ ☐ ไม่ใช่
   9) คนเวียดนาม ☐ ใช่ ☐ ไม่ใช่

Appendix F:

Study 2 Final Research Material

โครงการวิจัย: การศึกษากระบวนการพิจารณาเอกสารและการว่าจ้างผู้สมัคร

เพื่อให้สอดคล้องกับการเปิดตลาดแรงงานหลังจากการเข้าร่วม AEC องค์กรในประเทศไทยจึงมีความต้องการศึกษาเกี่ยวกับการจ้างงานผู้สมัคร เพื่อนำมาใช้ปรับปรุงระบบการว่าจ้างและการพิจารณาผู้สมัครให้มีประสิทธิภาพยิ่งขึ้น

การวิจัยนี้มีเอกสารทั้งหมดมี 4 ส่วน ประกอบไปด้วย

เอกสาร 1 : เกี่ยวกับ AEC

เอกสาร 2 : งานที่เปิดรับสมัคร

เอกสาร 3 : ข้อมูลเกี่ยวกับผู้สมัคร

เอกสาร 4 : มาตรวัดการตัดสินใจว่าจ้าง และเจตคติ

กรุณาอ่าน ข้อมูลเกี่ยวกับ AEC (เอกสาร 1) ตำแหน่งงานที่เปิดรับสมัคร (เอกสาร 2) โดยละเอียด จากนั้นกรุณาอ่านข้อมูลผู้สมัคร (เอกสาร 3) แล้วตอบคำถามเกี่ยวกับการตัดสินใจของคุณในเอกสาร 4

เอกสาร 1: เกี่ยวกับ AEC

AEC และการร่วมมือกันในตลาดอาเซียน

[AEC และการแข่งขันในตลาดแรงงานอาเซียน]

ประชาคมเศรษฐกิจอาเซียนหรือ ASEAN Economics Community (AEC) คือการรวมตัวของ10 ประเทศ คือ ไทย, พม่า, ลาว, เวียดนาม, มาเลเซีย, สิงคโปร์, อินโดนีเซีย, ฟิลิปปินส์, กัมพูชา, บรูไน เพื่อที่จะให้มีผลประโยชน์ทางเศรษฐกิจร่วมกัน โดยการรวมตัวเป็นประชาคมเศรษฐกิจอาเซียนได้มีผลเป็นรูปธรรม ในวันที่ 31 ธันวาคม 2558 ที่ผ่านมา

ผลกระทบของ AEC ต่อประเทศไทย โอกาสของคนไทย

[ผลกระทบของ AEC ต่อประเทศไทย ความเสี่ยงของคนไทย]

การเปิดประชาคมเศรษฐกิจอาเซียนถูกมองว่าเป็นโอกาส [ความเสี่ยง] ต่อประชาชนชาวไทย การรวมตัวกันครั้งนี้จะทำให้เกิดเคลื่อนย้ายอย่างเสรีของแรงงานระดับวิชาชีพ ความยุ่งยากในการทำเอกสารขออนุญาตทำงานสำหรับชาวต่างชาติ (Work Permits) จะลดลง การจ้างแรงงานที่มีความสามารถสูงจากต่างประเทศจะทำได้ง่ายขึ้น

การเปิดตลาดเสรีจะเพิ่มจำนวนแรงงานระดับสูงในตลาดแรงงาน และทำให้แรงงานสมัครเข้าทำงานในประเทศสมาชิกฯ ได้อย่างอิสระ ทำให้เกิดความเป็นฐานการผลิตรวมขนาดใหญ่จากจำนวนประชากรในภูมิภาคนี้ที่รวมกันถึง 580 ล้านคน ส่งผลให้ประเทศในอาเซียนมีอำนาจต่อรองกับนานาชาติมากขึ้น นำไปสู่การยกระดับการพัฒนาทางเศรษฐกิจและสังคมของประเทศสมาชิกฯในที่สุด

[การเปิดตลาดเสรีจะเพิ่มจำนวนแรงงานระดับสูงในตลาดแรงงาน และเพิ่มอัตราการแข่งขันกับแรงงานในประเทศไทยด้วย เพราะจากจำนวนประชากรในภูมิภาคนี้ที่รวมกันถึง 580 ล้านคน จะมีคนทำงานที่มีความรู้ความสามารถสูง และเก่งภาษา เข้ามาสมัครงานในประเทศไทยเพิ่มมากขึ้น ทำให้แรงงานไทยต้องพัฒนาฝีมือเพื่อรองรับการแข่งขันนี้]

เอกสาร 2: งานที่เปิดรับสมัคร

Aston Hotel Bangkok

รับสมัคร: ผู้จัดการแผนกอาหารและเครื่องดื่ม (Food & Beverage Manager)

หน้าที่รับผิดชอบ

วางแผนและบริหารจัดการแผนกอาหารและเครื่องดื่มซึ่งครอบคลุม ร้านอาหารของโรงแรม ศูนย์จัดเลี้ยงและประชุม บาร์ริมสระว่ายน้ำและบริการอาหารในห้องพัก

เป็นผู้วางเป้าการขาย แผนงบประมาณ แผนการบริการและการจัดการที่เกี่ยวกับอาหารและเครื่องดื่มทั้งหมดของโรงแรม จัดการทรัพยากรบุคคลของแผนกอาหารและเครื่องดื่ม (คัดเลือก ฝึกอบรม และประเมินพนักงาน) เพื่อให้ได้ตามมาตรฐานการบริการของโรงแรม และดูแลการดำเนินงานให้เป็นไปตามกฎและข้อบังคับด้านอนามัยและความปลอดภัย

คุณสมบัติผู้สมัคร

- ระดับการศึกษา ปริญญาตรีขึ้นไป ด้านการจัดการโรงแรม,การท่องเที่ยว หรือที่เกี่ยวข้อง
- มีประสบการณ์โดยตรง หรือที่เกี่ยวข้องอย่างน้อย 5 ปีขึ้นไปกับโรงแรม 4-5 ดาว
- สื่อสารภาษาอังกฤษได้ดีเยี่ยม
- มีความสามารถในการวางแผนจัดการ และมีมนุษยสัมพันธ์ดี
- มีความเป็นผู้นำ มีประสบการณ์ในการนำทีมเพื่อให้บรรลุเป้าหมาย
- สัญชาติไทย หรือประชาชนของประเทศสมาชิกกลุ่ม AEC ผู้มีใบอนุญาตทำงานในประเทศไทย

เงินเดือน: *50,000-62,000*

สถานะ: พนักงานประจำ

สถานที่ตั้ง: กรุงเทพฯ ประเทศไทย

เกี่ยวกับผู้ว่าจ้าง:

โรงแรม Aston Hotel Bangkok เป็นโรงแรมระดับ 5 ดาว จากยุโรป มี 120 สาขาใน 40 ประเทศทั่วโลก สาขาในประเทศไทยจะเปิดให้บริการใน ปี 2559 ซึ่งจะให้บริการห้องพัก 350 ห้อง ร้านอาหารไทย ร้านอาหารตะวันตก คลับเลาจ์ สปา บาร์ริมสระว่ายน้ำ และบริการจัดเลี้ยงและประชุม

เอกสาร 3: เกี่ยวกับผู้สมัคร

ข้อมูลโดยสรุปของผู้สมัครตำแหน่ง Food & Beverage Manager

ข้อมูลส่วนตัว

เพศ:	ชาย	อายุ:	30 ปี
อายุงาน:	7 ปี	การศึกษา:	ปริญญาตรี
สัญชาติ:	**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] (มีใบอนุญาตทำงานในประเทศไทย)		

ประสบการณ์การทำงาน

Assistant Food & Beverage Manager — **ต.ค.** 2013 – **ปัจจุบัน**

โรงแรม 4ดาว, จำนวนห้องพัก 200 ห้อง — 2 ปี

- วางแผนและดูแลการขายอาหารและเครื่องดื่มของทั้งโรงแรมร่วมกับผู้จัดการแผนกฯ
- ตรวจสอบและดูแลสินค้าคงเหลือ อุปกรณ์ และทรัพยากรบุคคลว่ามีเพียงพอและมีคุณภาพ
- จัดตารางการทำงานและ ฝึกอบรมพนักงานในแผนกฯ
- รายงานยอดขายให้ผู้จัดการแผนกฯ เสนอแนวคิดเพื่อเพิ่มยอดขาย คอยรับฟังปัญหาและแก้ปัญหาให้ลูกค้า

Restaurant Manager — **ส.ค.** 2010 – **ก.ย.** 2013

ร้านอาหารฟิวชั่นเอเชีย-ตะวันตก, โรงแรม 4 ดาว — 3 ปี 1 เดือน

- บริหารงานร้านอาหารของโรมแรม ดูแลให้มีพนักงานอย่างเพียงพอ บริหารกะเวลาทำงานของพนักงาน
- ดูและต้นทุนและกำไร ให้ร้านอาหารมียอดขายตามเป้า ดูแลพื้นที่ขายให้มีประสิทธิภาพที่สุด
- คอยดูแลลูกค้าที่มาทานอาหารเพื่อให้มั่นใจว่าลูกค้าพอใจกับบริการ

Restaurant Attendant — **มี.ค.** 2009 – **พ.ค.** 2010

ร้านอาหารในรีสอร์ทระดับ 3 ดาว — 1 ปี 3 เดือน

- ต้อนรับและแนะนำตอบคำถามลูกค้า ที่มารับประทานอาหารและใช้ห้องจัดเลี้ยง
- เก็บโต๊ะ จัดเตรียมโต๊ะและเสริฟอาหาร

ทักษะ

- F&B POS Software (Micros, Raptor)
- MS Words, Excel, PowerPoint
- ภาษาอังกฤษ: ดีเยี่ยม

เอกสาร 4: มาตรวัดการตัดสินใจว่าจ้าง

คำสั่ง: หลังจากได้อ่านตำแหน่งที่เปิดรับสมัคร และใบสมัครโดยย่อแล้ว กรุณาตอบคำถามต่อไปนี้โดยวงกลมรอบคำตอบที่ตรงกับความคิดเห็นของคุณมากที่สุด

1. มีความเป็นไปได้แค่ไหนที่คุณจะแนะนำผู้สมัครรายนี้เพื่อเข้าทำงาน?

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปไม่ได้	กลางๆ	น่าจะเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

2. คุณคิดว่าระดับเงินเดือนใดต่อไปนี้เหมาะสมจะเป็นเงินเดือนเริ่มต้นของผู้สมัครรายนี้?

1	2	3	4	5	6	7
50,000 บาท/ เดือน	52,000 บาท/ เดือน	54,000 บาท/ เดือน	56,000 บาท/ เดือน	58,000 บาท/ เดือน	60,000 บาท/ เดือน	62,000 บาท/ เดือน

3. คุณคิดว่าผู้สมัครจะเข้ากับพนักงานคนอื่นได้ดีมากน้อยเพียงใด?

1	2	3	4	5	6	7
เข้าไม่ได้เลย	เข้าไม่ได้	ไม่น่าเข้าได้	กลางๆ	น่าจะเข้าได้	เข้าได้	เข้าได้แน่นอน

4. คุณคิดว่าผู้สมัครจะสามารถเข้ากับลูกค้าได้ดีมากน้อยเพียงใด?

1	2	3	4	5	6	7
เข้าไม่ได้เลย	เข้าไม่ได้	ไม่น่าเข้าได้	กลางๆ	น่าจะเข้าได้	เข้าได้	เข้าได้แน่นอน

5. คุณคิดว่าผู้สมัครจะประสบความสำเร็จในตำแหน่งงานนี้มากน้อยเพียงใด?

1	2	3	4	5	6	7
เป็นไปไม่ได้เลย	เป็นไปไม่ได้	ไม่น่าเป็นไปไม่ได้	กลางๆ	น่าจะเป็นไปได้	เป็นไปได้	เป็นไปได้อย่างมาก

6. คุณคิดว่าผู้สมัครคนนี้ จำเป็นจะต้องผ่านช่วงทดลองงานก่อนที่จะรับเป็นพนักงานประจำหรือไม่?

1	2	3	4	5	6	7
ไม่จำเป็นเลย	ไม่จำเป็น	ค่อนข้างไม่จำเป็น	กลางๆ	ค่อนข้างจำเป็น	จำเป็น	จำเป็นอย่างมาก

7. หากผู้ว่าจ้างมีนโยบายให้พนักงานใหม่ต้องผ่านการทดลองงานระหว่าง 3-9 เดือน คุณจะแนะนำให้ผู้สมัครรายนี้ต้องทดลองงานเป็นระยะเวลากี่เดือน?

3 เดือน	4 เดือน	5 เดือน	6 เดือน	7 เดือน	8 เดือน	9 เดือน

8. เอกสารที่ใช้ในการสมัครงาน

นอกเหนือจากเอกสารประกอบการสมัครเบื้องต้น ได้แก่ สำเนาบัตรประจำตัวหรือหนังสือเดินทาง, สำเนาใบอนุญาตทำงานในประเทศไทย, สำเนาหลักฐานการศึกษา, รูปถ่าย,และ ผลทดสอบภาษาอังกฤษ

ในความคิดเห็นของคุณ หลักฐานหรือเอกสารอะไรอีกบ้าง ที่จะช่วยให้คุณมั่นใจได้ว่าผู้สมัครรายนี้มีความสามารถและทักษะอย่างแท้จริงดังปรากฏในใบสมัคร กรุณาพิจารณาหลักฐาน/เอกสารต่อไปนี้ แล้วทำเครื่องหมายเฉพาะข้อที่คุณเห็นว่ามีความจำเป็นเท่านั้น

☐ 1.จดหมายรับรองตำแหน่ง/เงินเดือนจากที่ทำงานล่าสุดตัวจริง

☐ 2.รูปถ่าย หรือหลักฐาน แสดงผลงานที่ผ่านมา

☐ 3.หลักฐานการศึกษาตัวจริง

☐ 4.ทำการทดสอบภาษาอังกฤษ ด้วยข้อสอบของบริษัทอีกครั้งเพิ่มเติมจากผลการสอบภาษาอังกฤษทั่วไป

☐ 5.ทำการทดสอบการใช้โปรแกรมที่ระบุในประวัติการทำงาน ว่าใช้งานได้จริง

☐ 6.ให้ผู้สมัครส่งร่างแนวคิดแผนการบริหารแผนกฯ เพื่อเพิ่มยอดขาย

☐ 7.ใบรับรองแพทย์ว่าสุขภาพแข็งแรง ไม่เป็นโรคร้ายแรง หรือวิกลจริต

☐ 8.ทำการตรวจสอบข้อมูลประวัติอาชญากรรมและบุคคลที่มีหมายจับ

เจตคติต่อคนสิงคโปร์ [มาเลเซีย/ลาว/พม่า]

9. คุณคิดว่าโดยทั่วไปแล้วคนไทยมองว่าคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] <u>เก่ง/มีความสามารถ</u>มากน้อยเพียงใด?

1	2	3	4	5	6	7
น้อยที่สุด	น้อย	ค่อนข้างน้อย	กลางๆ	ค่อนข้างมาก	มาก	มากที่สุด

10. คุณคิดว่าโดยทั่วไปแล้วคนไทยมองว่าคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] <u>อบอุ่น/เป็นมิตร</u>มากน้อยเพียงใด?

1	2	3	4	5	6	7
น้อยที่สุด	น้อย	ค่อนข้างน้อย	กลางๆ	ค่อนข้างมาก	มาก	มากที่สุด

11. คุณคิดว่าโดยทั่วไปแล้วคนไทยมองว่าคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] <u>ใจดี/มีน้ำใจ</u>มากน้อยเพียงใด?

1	2	3	4	5	6	7
น้อยที่สุด	น้อย	ค่อนข้างน้อย	กลางๆ	ค่อนข้างมาก	มาก	มากที่สุด

12. คุณคิดว่าโดยทั่วไปแล้วคนไทยมองว่าคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] <u>ขยัน/อดทน</u>มากน้อยเพียงใด?

1	2	3	4	5	6	7
น้อยที่สุด	น้อย	ค่อนข้างน้อย	กลางๆ	ค่อนข้างมาก	มาก	มากที่สุด

13. คุณจะยินดีทำงานร่วมกับคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] มากน้อยเพียงใด?

1	2	3	4	5	6	7
ไม่ยินดีเลย	ไม่ยินดี	ค่อนข้างไม่ยินดี	กลางๆ	ค่อนข้างยินดี	ยินดี	ยินดีอย่างมาก

14. คุณจะยินดีให้มีคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] มาเป็นเพื่อนบ้านคุณมากน้อยเพียงใด?

1	2	3	4	5	6	7
ไม่ยินดีเลย	ไม่ยินดี	ค่อนข้างไม่ยินดี	กลางๆ	ค่อนข้างยินดี	ยินดี	ยินดีอย่างมาก

15. คุณจะยินดีที่จะร่วมรับประทานอาหารร่วมโต๊ะกับคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] มากน้อยเพียงใด?

1	2	3	4	5	6	7
ไม่ยินดีเลย	ไม่ยินดี	ค่อนข้างไม่ยินดี	กลางๆ	ค่อนข้างยินดี	ยินดี	ยินดีอย่างมาก

16. คุณจะยินดีหากคนในครอบครัวคุณจะแต่งงานกับคน**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] มากน้อยเพียงใด?

1	2	3	4	5	6	7
ไม่ยินดีเลย	ไม่ยินดี	ค่อนข้างไม่ยินดี	กลางๆ	ค่อนข้างยินดี	ยินดี	ยินดีอย่างมาก

17. คุณคิดว่าการเข้ามาของแรงงานจากประเทศ**สิงคโปร์** [มาเลเซีย/ลาว/พม่า] จะมีผลกับประเทศไทยอย่างไร?

1	2	3	4	5	6	7
เป็นผลเสียอย่างมาก	ค่อนข้างเป็นผลเสีย	เป็นผลเสียเล็กน้อย	กลางๆ	เป็นประโยชน์เล็กน้อย	ค่อนข้างเป็นประโยชน์	เป็นประโยชน์อย่างมาก

กรุณากรอกข้อมูลส่วนตัว

1. เพศ ❑ ชาย ❑ หญิง

2. ไม่ทราบว่าคุณอายุเท่าใดคะ/ครับ อายุ...................ปี

3. สถานภาพสมรส ❑ โสด ❑ สมรส ❑ หย่า ❑ หม้าย ❑ แยกกันอยู่

4. กรุณาระบุระดับการศึกษาปัจจุบัน ❑ ปริญญาตรี ❑ ปริญญาโท ❑ ปริญญาเอก

5. คณะ/สถาบัน...................................สาขา/ภาควิชา...................................ชั้นปีที่ ....

6. คุณมีคนรู้จัก หรือใกล้ชิด มาจากประเทศต่อไปนี้หรือไม่?

1) คนบรูไน ❑ใช่❑ไม่ใช่

2) คนกัมพูชา ❑ใช่❑ไม่ใช่

3) คนอินโดนีเซีย ❑ใช่❑ไม่ใช่

4) คนลาว ❑ใช่❑ไม่ใช่

5) คนมาเลเซีย ❑ใช่❑ไม่ใช่

6) คนพม่า ❑ใช่❑ไม่ใช่

7) คนฟิลิปปินส์ ❑ใช่❑ไม่ใช่

8) คนสิงคโปร์ ❑ใช่❑ไม่ใช่

9) คนเวียดนาม ❑ใช่❑ไม่ใช่

Appendix G:

Study 1 Data Transformation and Results

Variable abbreviations for Study 1

Abbreviation	Description	Characteristic
COMPETENCE	Competence stereotype	Manipulated variable, 2 categories, 0 = High, 1 = Low
WARMTH	Warmth stereotype	Manipulated variable, 2 categories, 0 = High, 1 = Low
CxW	Interaction between COMPETENCE and WARMTH	Interaction terms of COMPETENCE and WARMTH variables
BLATANT	Blatant hiring discrimination scale	An average of 3 items, high score indicates high blatant hiring discrimination, scale from 1-7
BLATANT_T	Transformed blatant hiring discrimination scale	An average of 3 squared term items, high score indicates high blatant hiring discrimination
SUBTLE	Subtle hiring discrimination scale	An average of 4 items, high score indicates high subtle hiring discrimination, scale from 1-7
SUBTLE_T	Transformed subtle hiring discrimination scale	An average of 4 squared term items, high score indicates high subtle hiring discrimination
PJDFT	Prejudice measured by the feeling thermometer	One item, high score indicates high prejudice, scale from 1-100
PJDFT_T	Transformed feeling thermometer	One item, squared term of PJDFT, high score indicates high prejudice

Test for normality and data transformation

Table G1

Skewness, Kurtosis, Test for Normality Statistics of Variables Before and After Data Transformation

Variable			Mean and standard deviation				Skewness			
Original variable	Transformed variable	Data transformation method	Original data		Transformed data		Original data		Transformed data	
			M	*SD*	*M*	*SD*	Statistic	*p*	Statistic	*p*
BLATANT	BLATANT_T	Average of B1_T, B2_T, B3_T	2.53	0.84	1.56	0.26	0.67	.00	0.12	.45
B1	B1_T	Squared term of B1	2.30	0.94	1.49	0.31	0.71	.00	0.16	.32
B2	B2_T	Squared term of B2	2.67	1.00	1.60	0.31	0.51	.00	-0.02	.92
B3	B3_T	Squared term of B3	2.64	0.99	1.60	0.31	0.58	.00	-0.02	.91
SUBTLE	SUBTLE_T	Average of S1_T, S2_T, S3_T,S4_T	2.51	0.62	1.56	0.20	0.48	.00	0.15	.34
S1	S1_T	Squared term of S1	2.75	0.85	1.64	0.27	0.20	.21	-0.29	.08
S2	S2_T	Squared term of S2	2.70	0.93	1.62	0.30	0.13	.41	-0.35	.03
S3	S3_T	Squared term of S3	2.25	0.85	1.47	0.29	0.45	.01	-0.02	.89
S4	S4_T	Squared term of S4	2.36	0.77	1.52	0.25	0.53	.00	0.01	.94
PJDFT	PJDFT_T	Squared term of PJDFT	34.86	14.01	5.78	1.19	0.68	.00	0.19	.25

(continued)

Variable			Kurtosis				Kolmogorov-Smirnova test of normality			
Original variable	Transformed variable	Data transformation method	Original data		Transformed data		Original Data		Transformed Data	
			Statistic	*p*	Statistic	*p*	Statistic	*p*	Statistic	*p*
BLATANT	BLATANT_T	Average of B1_T, B2_T, B3_T	1.11	.01	0.24	.41	0.12	.00	0.09	.00
B1	B1_T	Squared term of B1	0.63	.09	-0.21	.56	0.28	.00	0.25	.00
B2	B2_T	Squared term of B2	0.23	.42	-0.16	.69	0.23	.00	0.21	.00
B3	B3_T	Squared term of B3	0.74	.06	0.05	.76	0.22	.00	0.20	.00
SUBTLE	SUBTLE_T	Average of S1_T, S2_T, S3_T,S4_T	0.07	.72	-0.32	.30	0.12	.00	0.09	.00
S1	S1_T	Squared term of S1	-0.02	.92	0.13	.59	0.23	.00	0.25	.00
S2	S2_T	Squared term of S2	-0.22	.53	-0.14	.74	0.21	.00	0.24	.00
S3	S3_T	Squared term of S3	-0.06	.96	-0.38	.19	0.28	.00	0.25	.00
S4	S4_T	Squared term of S4	0.27	.37	0.14	.58	0.31	.00	0.29	.00
PJDFT	PJDFT_T	Squared term of PJDFT	0.33	.29	-0.35	.23	0.14	.00	0.12	.00

Table G2

Distribution of Data Before and After Data Transformation

Variable			Data distribution	
Original variable	Transformed variable	Data transformation method	Original data	Transformed data
BLATANT	BLATANT_T	Average of B1_T, B2_T, B3_T	Positive skew, mesokurtic	Symmetrical, mesokurtic
B1	B1_T	Squared term of B1	Positive skew, mesokurtic	Symmetrical, mesokurtic
B2	B2_T	Squared term of B2	Positive skew, mesokurtic	Symmetrical, mesokurtic
B3	B3_T	Squared term of B3	Positive skew, mesokurtic	Symmetrical, mesokurtic
SUBTLE	SUBTLE_T	Average of S1_T, S2_T, S3_T,S4_T	Positive skew, mesokurtic	Symmetrical, mesokurtic
S1	S1_T	Squared term of S1	Symmetrical, mesokurtic	Symmetrical, mesokurtic
S2	S2_T	Squared term of S2	Symmetrical, mesokurtic	Symmetrical, mesokurtic
S3	S3_T	Squared term of S3	Positive skew, mesokurtic	Symmetrical, mesokurtic
S4	S4_T	Squared term of S4	Positive skew, mesokurtic	Symmetrical, mesokurtic
PJDFT	PJDFT_T	Squared term of PJDFT	Positive skew, mesokurtic	Symmetrical, mesokurtic

Outliers

Table G3

Summary Statistics for Outliers Before and After Data Transformation

Variable	Univariate outliers	
	Number of cases with standardized values exceeding ±4	
	Original data	Transformed data
B1	0	0
B2	0	0
B3	0	0
S1	0	0
S2	0	0
S3	0	0
S4	0	0
PJDFT	0	0

Table G4

Summary Statistics for Outliers Before and After Data Transformation

Variable	Univariate outliers		Multivariate outliers	
	Number of cases with standardized values exceeding ±4		Number of cases with a value of D^2/df greater than ±4 (df = 6)[a]	
	Original data	Transformed data	Original data	Transformed data
BLATANT	1	0	2	1
SUBTLE	0	0		
PJDFT	0	0		

[a]Mahalanobis D^2 value based on the 6 variables (COMPETENCE, WARMTH, CxW, BLATANT, SUBTLE, PJDFT).

Internal consistency of dependent variables

Table G5

Corrected Item-Total Correlation and Cronbach's Alpha for Blatant Hiring Discrimination Scale (3 Items)

Item	Description	CICT (N = 220)	
		Original data	Transformed data
B1	What is the likelihood that you would invite this person for an interview?	.61	.60
B2	How likely do you think it is that the applicant would be hired for the job?	.77	.76
B3	What is the likelihood that you would hire the applicant for the job?	.70	.69
	Alpha	.83	.82

Note. Critical $r_{(220, .05)} = .11$.

Table G6

Corrected Item-Total Correlation and Cronbach's Alpha for Subtle Hiring Discrimination Scale (4 Items)

Item	Description	CICT (N = 220)	
		Original data	Transformed data
S1	How confident are you in your decision?	.41	.41
S2	How well do you think the candidate will fit with other co-workers?	.44	.43
S3	How well do you think the candidate will fit with the customers?	.60	.59
S4	How successful do you think this candidate will be in this career?	.52	.50
	Alpha	.70	.70

Note. Critical $r_{(220, .05)} = .11$.

Homoscedasticity

Table G7

Summary Statistics for Homoscedasticity on COMPETENCE Variable

Original variable	Transformed variable	COMPETENCE			
		Original data		Transformed data	
		Levene Statistic	*p*	Levene Statistic	*p*
BLATANT	BLATANT_T	.02	.89	.51	.47
SUBTLE	SUBTLE_T	.18	.67	.03	.87

Table G8

Summary Statistics for Homoscedasticity on WARMTH Variable

Original variable	Transformed variable	WARMTH			
		Original data		Transformed data	
		Levene Statistic	*p*	Levene Statistic	*p*
BLATANT	BLATANT_T	.05	.83	.05	.83
SUBTLE	SUBTLE_T	.22	.64	.01	.91

Correlated errors

Table G9

Regression Analysis Summary for Age Predicting Dependent Variables

Dependent variable	*b*	*SE*	β	*t*	*p*
BLATANT	-.02	.03	-.05	-.74	.46
SUBTLE	.02	.02	.07	1.06	.29
BLATANT_T	-.01	.01	-.05	-.71	.48
SUBTLE_T	.01	.01	.06	.94	.35

Table G10

Means, Standard Deviations, and Analysis of Variance for the Effect of Gender on Dependent Variables

Variable	Male (*n* = 60)	Female (*n* = 160)	*F(1, 218)*	*p*	η^2
	M (*SD*)	*M* (*SD*)			
BLATANT	2.47 (.81)	2.56 (.85)	.54	.46	.002
BLATANT_T	1.54 (.26)	1.57 (.27)	.45	.50	.002
SUBTLE	2.52 (.60)	2.51 (.63)	.00	.96	.000
SUBTLE_T	1.56 (.19)	1.56 (.20)	.00	.97	.000

Table G11

Means, Standard Deviations, and Analysis of Variance for the Effect of Education Level on Dependent Variables

Variable	Bachelor's degree (n = 195)	Master's degree (n = 25)	$F(1, 218)$	p	η^2
	M (SD)	M (SD)			
BLATANT	2.55 (.85)	2.39 (.78)	.87	.35	.004
BLATANT_T	1.57 (.27)	1.51 (.24)	.90	.34	.004
SUBTLE	2.53 (.61)	2.42 (.67)	.64	.42	.003
SUBTLE_T	1.56 (.20)	1.53 (.22)	.84	.36	.004

Table G12

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Knowing Someone from AEC Countries on Dependent Variables

Variable	Don't know anyone from AEC (n = 103)	Know someone from AEC (n = 117)	$F(1, 218)$	p	η^2
	M (SD)	M (SD)			
BLATANT	2.61 (.87)	2.47 (.81)	1.36	.24	.006
BLATANT_T	1.58 (.27)	1.54 (.26)	1.31	.25	.006
SUBTLE	2.55 (.66)	2.48 (.59)	.79	.37	.004
SUBTLE_T	1.57 (.21)	1.55 (.19)	.65	.42	.003

Table G13

Means, Standard Deviation, and Analysis of Variance for the Effect of Faculty on Dependent Variables

Variable	Psychology (n = 33)	Business, finance, economics (n = 120)	Humanities (n = 30)
	M (*SD*)	*M* (*SD*)	*M* (*SD*)
BLATANT	2.49 (0.65)	2.57 (0.77)	2.31 (0.96)
BLATANT_T	1.55 (0.21)	1.57 (0.24)	1.48 (0.30)
SUBTLE	2.56 (0.61)	2.54 (0.62)	2.27 (0.52)
SUBTLE_T	1.58 (0.20)	1.57 (0.20)	1.48 (0.18)

(continued)

Variable	Arts (n = 32)	Other (n = 5)	$F(4, 215)$	p	η^2
	M (*SD*)	*M* (*SD*)			
BLATANT	2.64 (1.12)	2.73 (0.80)	.77	.54	.014
BLATANT_T	1.58 (0.36)	1.63 (0.25)	.87	.49	.016
SUBTLE	2.59 (0.71)	2.60 (0.38)	1.45	.22	.026
SUBTLE_T	1.59 (0.22)	1.59 (0.12)	1.57	.18	.028

Linearity

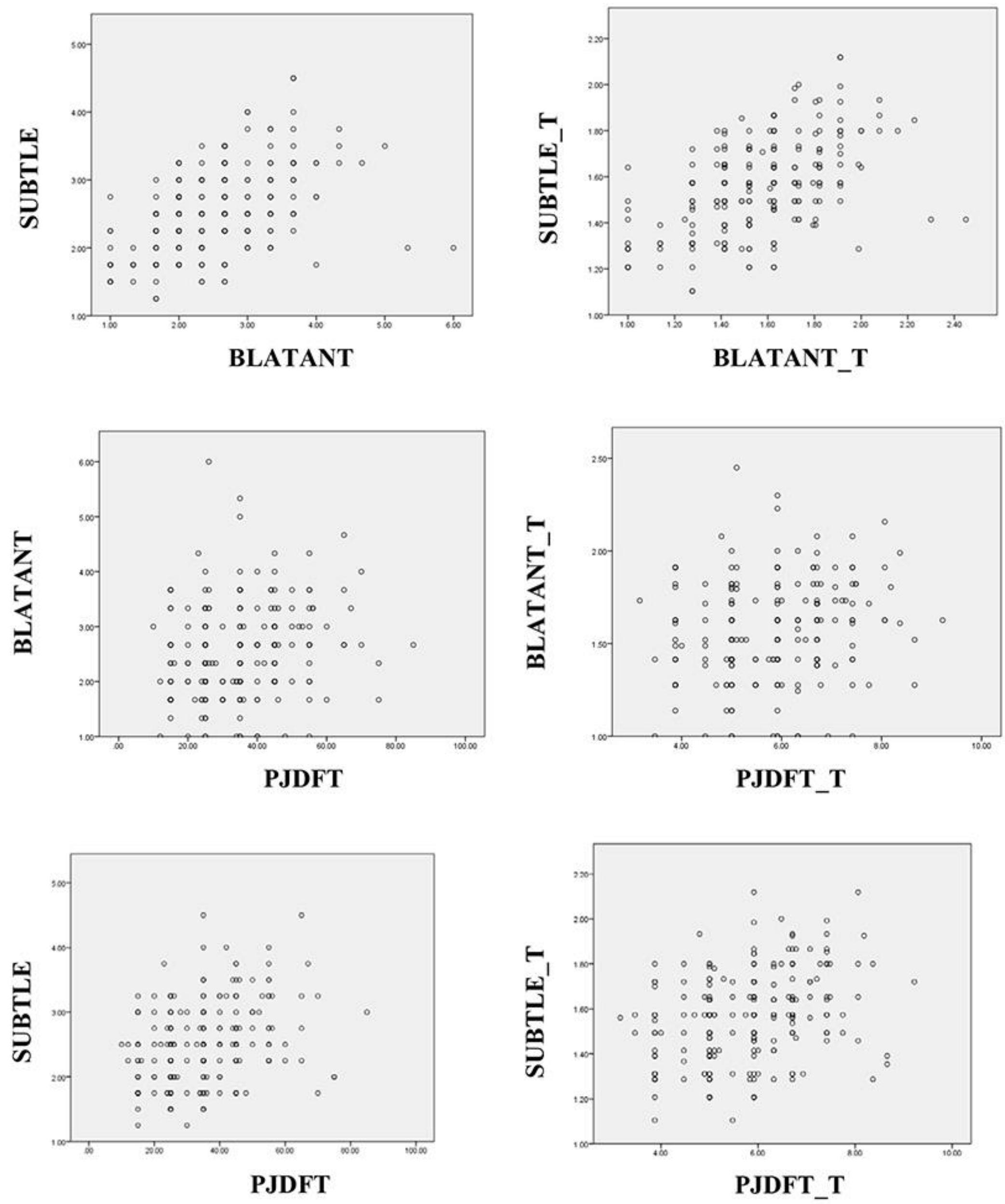

Figure G1. Scatter plot of Study 1 dependent variables.

Correlations among variables

Table G14

Correlations, Means, Standard Deviations, and Score Ranges of Study 1 Variables (Original Data)

	1	2	3	4	5	6
1. COMPETENCE	-					
2. WARMTH	.00	-				
3. CxW	.58**	.58**	-			
4. BLATANT	.23**	-.01	.08	-		
5. SUBTLE	.11	.25**	.22**	.48**	-	
6. PJDFT	.00	.34**	.20**	.19**	.34**	-
M	.50	.50	.25	2.53	2.51	34.86
SD	.50	.50	.43	.84	.62	14.10
Score range	0-1	0-1	0-1	1-7	1-7	0-100

** $p < .01$ (2-tailed).

Table G15

Correlations, Means, and Standard Deviations of Study 1 Variables (Transformed Data)

	1	2	3	4	5	6
1. COMPETENCE	-					
2. WARMTH	.00	-				
3. CxW	.58**	.58**				
4. BLATANT_T	.23**	-.01	0.08	-		
5. SUBTLE_T	.12	.25**	.22**	.50**	-	
6. PJDFT_T	-.01	.34**	.20**	.19**	.34**	-
M	.50	.50	.25	1.56	1.56	5.78
SD	.50	.50	.43	.26	.20	1.19

** $p < .01$ (2-tailed).

Path analysis results

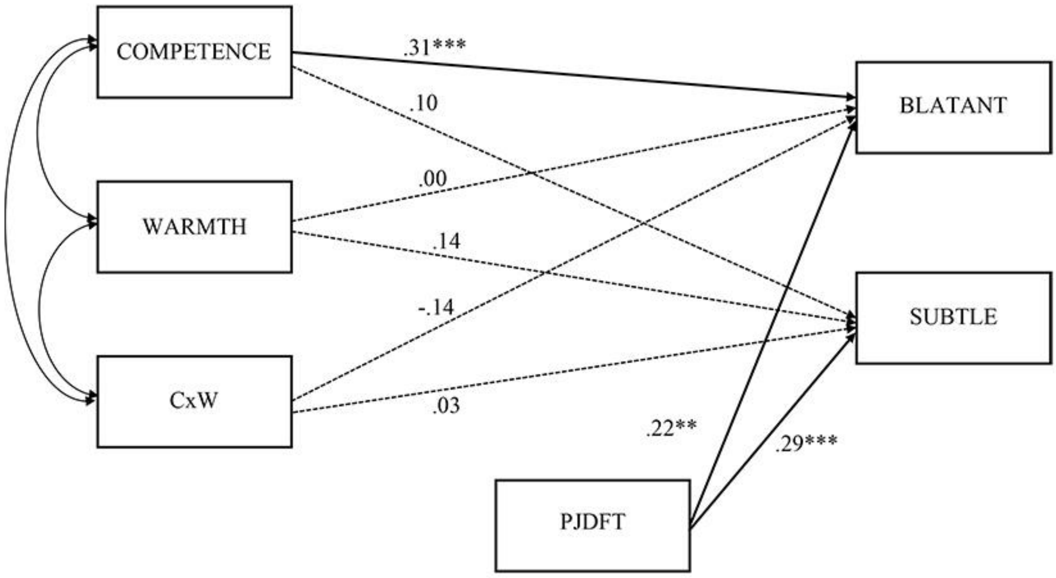

Figure G2. The standardized coefficients for Model 1a (Original data). Chi-square (1, *N* = 220) = 51.56, *p* < .001, GFI = .94, RMR = .05, standardized RMR = .09, RMSEA = .48, CFI = .86. Statistically significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. ***p* < .01. ****p* < .001.

Table G16

Direct and Total Effects on Blatant and Subtle Hiring Discrimination of Model 1a (Original Data)

Variable		BLATANT		SUBTLE	
	Statistic	DE	TE	DE	TE
COMPE-TENCE	β	.31***	.31***	.10	.10
	b	.52***	.52***	.12	.12
	SE	.15	.15	.11	.11
	t	3.39	3.42	1.11	1.11
WARMTH	β	.00	.00	.14	.14
	b	.00	.00	.17	.17
	SE	.16	.16	.11	.11
	t	-.02	-.02	1.49	1.51
CxW	β	-.14	-.14	.03	.03
	b	-.28	-.28	.04	.04
	SE	.22	.21	.16	.15
	t	-1.28	-1.29	.26	.27
PJDFT	β	.22**	.22**	.29***	.29***
	b	.01**	.01**	.01***	.01***
	SE	.00	.00	.00	.00
	t	3.26	3.29	4.28	4.32
R^2		.10		.15	
Chi-square (1, *N* = 220) = 51.56, *p* < .001, GFI = .94, RMR = .05, standardized RMR = .09, RMSEA = .48, CFI = .86.					

***p* < .01. ****p* < .001.

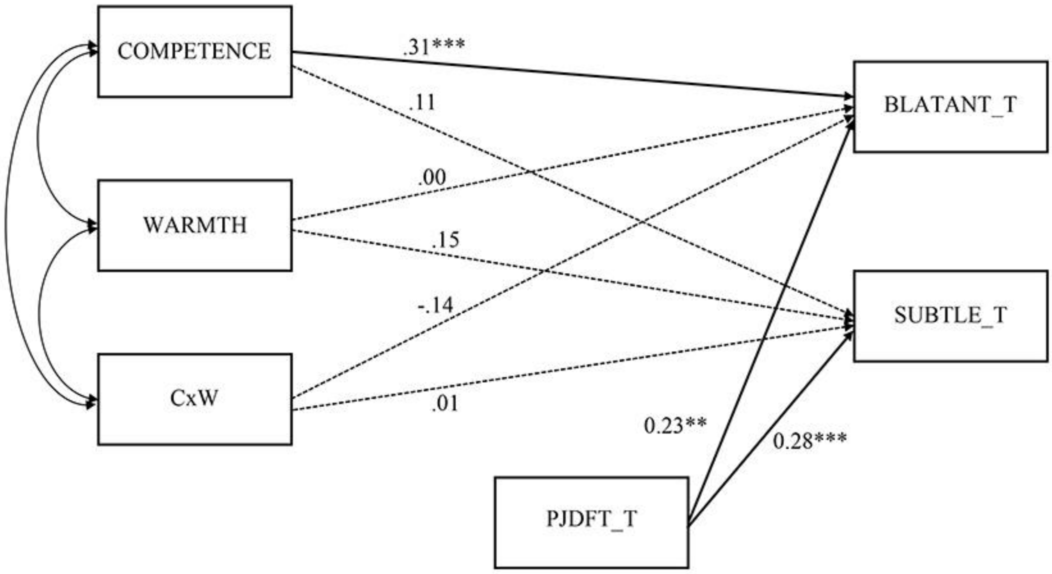

Figure G3. The standardized coefficients for Model 1b (Transformed data). Chi-square (1, *N* = 220) = 58.01, *p* < .05, GFI = .93, RMR = .00, standardized RMR = .09, RMSEA = .51, CFI = .85. Statistically significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. ***p* < .01. ****p* < .001.

Table G17

Direct and Total Effects on Transformed Blatant and Subtle Hiring Discrimination of Model 1b (Transformed Data)

Variable	BLATANT_T			SUBTLE_T	
	Statistic	DE	TE	DE	TE
COMPE-TENCE	β	.31***	.31***	.11	.11
	b	.16***	.16***	.04	.04
	SE	.05	.05	.04	.04
	t	3.42	3.45	1.27	1.29
WARMTH	β	.00	.00	.15	.15
	b	.00	.00	.06	.06
	SE	.05	.05	.04	.04
	t	-.05	-.05	1.62	1.62
CxW	β	-.14	-.14	.01	.01
	b	-.08	-.08	.01	.01
	SE	.07	.07	.05	.05
	t	-1.23	-1.25	.13	.13
PJDFT_T	β	.23**	.23**	.28***	.28***
	b	.05**	.05**	.05***	.05***
	SE	.02	.02	.01	.01
	t	3.30	3.33	4.24	4.28
R^2		.10		.15	
Chi-square (1, N = 220) = 58.01, p < .05, GFI = .93, RMR = .00, standardized RMR = .09, RMSEA = .51, CFI = .85.					

**p < .01. ***p < .001.

Appendix H:

Study 2 Data Transformation and Results

Variable abbreviations for Study 2

Abbreviation	Description	Characteristic
COMPETENCE	Competence stereotype	Manipulated variable, 2 categories, 0 = High, 1 = Low
WARMTH	Warmth stereotype	Manipulated variable, 2 categories, 0 = High, 1 = Low
MINDSET	Cooperative/Competitive mindset	Manipulated variable, 2 categories, 0 = Cooperative, 1 = Competitive
CxW	Interaction between COMPETENCE and WARMTH	Interaction terms of COMPETENCE and WARMTH
CxM	Interaction between COMPETENCE and MINDSET	Interaction terms of COMPETENCE and MINSDET
WxM	Interaction between WARMTH and MINDSET	Interaction terms of WARMTH and MINSDET
CxWxM	Interaction between COMPETENCE, WARMTH, and MINDSET	Interaction terms of COMPETENCE, WARMTH, and MINDSET
REC-DISCRIM	Hiring discrimination measured by decision to recommendation	One item, high score indicates high discrimination (low recommendation), scale from 1-7
REC-DISCRIM_T	Transformed REC-DISCRIM	Squared term of REC-DISCRIM, high score indicates high discrimination (low recommendation)
SLR-DISCRIM	Hiring discrimination measured by starting salary rating	One item, high score indicates high discrimination (low salary), scale from 1-7
SLR-DISCRIM_T[a]	Transformed SLR-DISCRIM	Squared term of reversed score of SLR-DISCRIM, high score indicates low discrimination (high salary)
SUBTLE	Subtle hiring discrimination scale	An average of 3 items, high score indicates high subtle hiring discrimination, scale from 1-7
SUBTLE_T	Transformed subtle hiring discrimination scale	An average of 3 squared term items, high score indicates high subtle hiring discrimination

[a]SLR-DISCRIM_T was treated with square term reflection thus high score indicate low discrimination.

Variable abbreviations for Study 2 (continued)

Abbreviation	Description	Characteristic
PJDSD	Prejudice measured by the social distance scale	An average of 4 items, high score indicates high prejudice, scale from 1-7
PJDSD_T	Prejudice measured by the social distance scale	An average of 4 squared term items, high score indicates high prejudice
PROBANEED	Hiring discrimination measured by probation placement decision	One item, high score indicates high discrimination (high likelihood to recommend probation placement), scale from 1-7
PROBANEED_T[a]	Transformed PROBANEED	Squared term of reversed score of PROBANEED, high score indicates low discrimination (low likelihood to recommend probation placement)
PROBATIME	Hiring discrimination measured by probation length decision	One item, high score indicates high discrimination (high probation placement length), scale from 1-7
PROBATIME_T	Transformed PROBATIME	Log transformation of PROBATIME, high score indicates high discrimination (high probation placement length)
AECFAMILIAR	Know someone from AEC countries besides Thailand	Indicator coding, 0 = No, 1 = Yes
GENDER	Respondents' gender	Indicator coding, 0 = Male, 1 = Female
AGE	Respondents' age	Ratio scale
BIZ	Study in business, finance, economics faculties	Indicator coding, 0 = No, 1 = Yes
SOC	Study in social sciences faculties	Indicator coding, 0 = No, 1 = Yes
INDUS	Study in industrial technology and management faculties	Indicator coding, 0 = No, 1 = Yes
HUMAN	Study in humanities faculties	Indicator coding, 0 = No, 1 = Yes

[a]PROBANEED_T was treated with square term reflection thus high score indicate low discrimination.

Table H1

Summary Statistics of Missing Data for Dependent Variables

Variable	Number of valid cases	*M*	*SD*	Missing data		Missing data treatment	After treatment	
				Frequency	%		*M*	*SD*
REC-DISCRIM	512	2.67	1.03	0	0.0	None	2.67	1.03
SLR-DISCRIM	512	4.88	1.68	0	0.0	None	4.88	1.68
SUBTLE	510	2.73	0.82	2	0.4	n/a	2.73	0.82
S1	510	2.99	1.00	2	0.4	Replace with mean	2.99	1.00
S2	512	2.59	1.01	0	0.0	None	2.59	1.01
S3	512	2.62	0.93	0	0.0	None	2.62	0.93
PROBANEED	512	4.80	1.47	0	0.0	None	4.80	1.47
PROBATIME	510	2.44	1.53	2	0.4	None	2.44	1.52
SS	512	3.86	2.32	0	0.0	None	3.86	2.32
PJDSDS	509	3.06	0.99	3	0.6	n/a	3.06	0.99
SDS1	511	2.84	1.11	1	0.2	Replace with means	2.84	1.11
SDS2	510	2.92	1.09	2	0.4	Replace with means	2.92	1.09
SDS3	509	2.93	1.14	3	0.6	Replace with means	2.93	1.13
SDS4	510	3.55	1.50	2	0.4	Replace with means	3.55	1.50

Table H2

Skewness, Kurtosis, Test for Normality Statistics

Variable	Skewness		Kurtosis		Kolmogorov-Smirnov test of normality	
	Statistic	*p*	Statistic	*p*	Statistic	*p*
REC-DISCRIM	0.55	.00	0.58	.03	0.23	.00
SLR-DISCRIM	-0.31	.01	-0.91	.00	0.14	.00
SUBTLE	0.28	.01	0.18	.38	0.13	.00
S1	0.14	.19	0.23	.28	0.19	.00
S2	0.33	.00	-0.15	.51	0.21	.00
S3	0.42	.00	0.10	.57	0.24	.00
PROBANEED	-0.55	.00	-0.17	.43	0.17	.00
PROBATIME	0.73	.00	-0.39	.03	0.24	.00
SS	0.01	.90	-0.79	.00	0.09	.00
PJDSDS	0.23	.04	-0.45	.01	0.08	.00
SDS1	0.28	.01	-0.15	.52	0.19	.00
SDS2	0.32	.00	0.05	.76	0.19	.00
SDS3	0.24	.03	-0.39	.03	0.21	.00
SDS4	0.37	.00	-0.34	.07	0.17	.00

Table H3

Means, Standard Deviations, and Skewness of Variables Before and After Data Transformation

Variable			Mean and standard deviation				Skewness			
			Original data		Transformed data		Original data		Transformed data	
Original variable	Transformed variable	Data transformation method	*M*	*SD*	*M*	*SD*	Statistic	*p*	Statistic	*p*
REC-DISCRIM	REC-DISCRIM_T	Squared term	2.67	1.03	1.60	0.32	.55	.00	-.01	.90
SLR-DISCRIM	SLR-DISCRIM_T	Squared term reflection	4.88	1.68	1.70	0.50	-.31	.01	-.08	.46
SUBTLE	SUBTLE_T	Mean score of S1,S2,S3	2.73	0.82	1.62	0.26	.28	.01	-.16	.14
S1	S1_T	Squared term	2.99	1.00	1.70	0.30	.14	.19	-.40	.00
S2	S2_T	Squared term	2.59	1.01	1.58	0.32	.33	.00	-.15	.16
S3	S3_T	Squared term	2.62	0.93	1.59	0.29	.42	.00	-.08	.44
PROBANEED	PROBANEED_T	Squared term reflection	4.80	1.47	1.74	0.42	-.55	.00	.05	.67
PROBATIME	PROBATIME_T	Log	2.44	1.52	0.30	0.28	.73	.00	.14	.18
SS	n/a	None	3.86	2.32	n/a	n/a	.01	.90	n/a	n/a
PJDSDS	PJDSDS_T	Mean score of SDS1,2,3,4	3.06	0.99	1.71	0.29	.23	.04	-.14	.20
SDS1	SDS1_T	Squared term	2.84	1.11	1.65	0.34	.28	.01	-.21	.06
SDS2	SDS2_T	Squared term	2.92	1.09	1.68	0.33	.32	.00	-.19	.08
SDS3	SDS3_T	Squared term	2.93	1.13	1.68	0.34	.24	.03	-.20	.06
SDS4	SDS4_T	Squared term	3.55	1.50	1.84	0.41	.37	.00	-.12	.28

Table H4

Kurtosis and Test for Normality Statistics of Variables Before and After Data Transformation

Variable			Kurtosis				Kolmogorov-Smirnova test of normality			
Original variable	Transformed variable	Data transformation method	Original data		Transformed data		Original data		Transformed data	
			Statistic	*p*	Statistic	*p*	Statistic	*p*	Statistic	*p*
REC-DISCRIM	REC-DISCRIM_T	Squared term	0.58	.02	-0.18	.40	0.23	.00	0.21	.00
SLR-DISCRIM	SLR-DISCRIM_T	Squared term reflection	-0.91	.00	-1.15	.00	0.14	.00	0.17	.00
SUBTLE	SUBTLE_T	Mean score of S1,S2,S3	0.18	.38	-0.03	.97	0.13	.00	0.10	.00
S1	S1_T	Squared term	0.23	.27	0.12	.53	0.19	.00	0.22	.00
S2	S2_T	Squared term	-0.15	.51	-0.46	.01	0.21	.00	0.19	.00
S3	S3_T	Squared term	0.10	.57	-0.18	.40	0.24	.00	0.22	.00
PROBANEED	PROBANEED_T	Squared term reflection	-0.17	.43	-0.57	.00	0.17	.00	0.16	.00
PROBATIME	PROBATIME_T	Log	-0.39	.03	-1.54	.00	0.24	.00	0.27	.00
SS	n/a	None	-0.79	.00	n/a	n/a	0.09	.00	n/a	n/a
PJDSDS	PJDSDS_T	Mean score of SDS1,2,3,4	-0.45	.01	-0.48	.00	0.08	.00	0.06	.00
SDS1	SDS1_T	Squared term	-0.15	.52	-0.46	.01	0.19	.00	0.17	.00
SDS2	SDS2_T	Squared term	0.05	.76	-0.27	.16	0.19	.00	0.18	.00
SDS3	SDS3_T	Squared term	-0.39	.03	-0.56	.00	0.21	.00	0.19	.00
SDS4	SDS4_T	Squared term	-0.34	.07	-0.53	.00	0.17	.00	0.20	.00

Table H5

Distributions of Data Before and After Data Transformation

Variable			Data distribution	
Original variable	Transformed variable	Data transformation method	Original data	Transformed data
REC-DISCRIM	REC-DISCRIM_T	Squared term	Positive skew, leptokurtic	Symmetrical, mesokurtic
SLR-DISCRIM	SLR-DISCRIM_T	Squared term reflection	Negative skew, platykurtic	Symmetrical, platykurtic
SUBTLE	SUBTLE_T1	Mean score	Positive skew, mesokurtic	Symmetrical, mesokurtic
S1	S1_T	Squared term	Symmetrical, mesokurtic	Negative skew, mesokurtic
S2	S2_T	Squared term	Positive skew, mesokurtic	Symmetrical, platykurtic
S3	S3_T	Squared term	Positive skew, mesokurtic	Symmetrical, mesokurtic
PROBANEED	PROBANEED_T	Squared term reflection	Negative skew, mesokurtic	Symmetrical, platykurtic
PROBATIME	PROBATIME_T	Log	Positive skew, platykurtic	Symmetrical, platykurtic
SS	n/a	None	Symmetrical, platykurtic	n/a
PJDSDS	PJDSDS_T	Mean score	Positive skew, platykurtic	Symmetrical, platykurtic
SDS1	SDS1_T	Squared term	Positive skew, mesokurtic	Symmetrical, platykurtic
SDS2	SDS2_T	Squared term	Positive skew, mesokurtic	Symmetrical, mesokurtic
SDS3	SDS3_T	Squared term	Positive skew, platykurtic	Symmetrical, platykurtic
SDS4	SDS4_T	Squared term	Positive skew, platykurtic	Symmetrical, platykurtic

Outliers

Table H6

Summary Statistics for Univariate Outliers for Dependent Variables Before and After Data Transformation

Variable	Univariate outliers	
	Number of cases with standardized values exceeding ±4	
	Original data	Transformed data
REC-DISCRIM	2	0
SLR-DISCRIM	0	0
S1	0	0
S2	0	0
S3	0	0
PROBANEED	0	0
PROBATIME	0	0
SS	0	0
SDS1	0	0
SDS2	0	0
SDS3	0	0
SDS4	0	0

Table H7

Summary Statistics for Univariate and Multivariate Outliers for Dependent Variables Before and After Data Transformation

Variable	Univariate outliers: Number of cases with standardized values exceeding ±4		Multivariate outliers: Number of cases with a value of D^2/df greater than ±4 (df = 14)[a]	
	Original data	Transformed data	Original data	Transformed data
REC-DISCRIM	2	0	0	0
SLR-DISCRIM	0	0		
SUBTLE	0	0		
PROBANEED	0	0		
PROBATIME	0	0		
SS	0	0		
PJDSDS	0	0		

[a]Mahalanobis D^2 value based on the 14 dependent variables: COMPETENCE, WARMTH, MINDSET, CxW, CxM, WxM, CxWxM, REC-DISCRIM, SLR-DISCRIM, SUBTLE, and PROBANEED, PROBATIME, SS, PJDSDS.

Internal consistency of prejudice scale

Table H8

Corrected Item-Total Correlation and Cronbach's Alpha for Blatant Hiring Discrimination Scale (2 Items)

Item	Description	CICT (N = 512)	
		Original data	Transformed data
REC-DISCRIM	How strongly would you recommend this candidate to be hired for the job?	.22	-.23
SLR-DISCRIM	What would be a suitable starting salary figures for this candidate?	.22	-.23
	Alpha	.33	-.54

Note. Critical $r_{(512, .05)}$ = .07.

Table H9

Corrected Item-Total Correlation and Cronbach's Alpha for Subtle Hiring Discrimination Scale (5 Items)

Item	Description	CICT (N = 512)
S1	How well do you think the candidate will fit with other co-workers?	.34
S2	How well do you think the candidate will fit with the customers?	.27
S3	How successful do you think this candidate will be in this career?	.32
S4	How strongly do you feel that probation placement is needed for this candidate?	.08
S5	What is your recommended length of probation for this candidate?	.00
	Alpha	.34

Note. Critical $r_{(512, .05)}$ = .07.

Table H10

Corrected Item-Total Correlation and Cronbach's Alpha for Subtle Hiring Discrimination Scale (3 Items)

Item	Description	CICT (N = 512)	
		Original data	Transformed data
S1	How well do you think the candidate will fit with other co-workers?	.61	.61
S2	How well do you think the candidate will fit with the customers?	.64	.64
S3	How successful do you think this candidate will be in this career?	.58	.58
	Alpha	.78	.78

Note. Critical $r_{(512, .05)}$ = .07.

Table H11

Corrected Item-Total Correlation and Cronbach's Alpha for Probation Scale (2 Items)

Item	Description	CICT (N = 512)	
		Original data	Transformed data
PROBANEED	How strongly do you feel that probation placement is needed for this candidate?	.20	-.19
PROBATIME	What is your recommended length of probation for this candidate?	.20	-.19
	Alpha	.33	-.46

Note. Critical $r_{(512, .05)}$ = .07.

Table H12

Corrected Item-Total Correlation and Cronbach's Alpha for Social Distance Scale (4 Items)

Item	Description	CICT (N = 512)	
		Original data	Transformed data
SDS1	Willingness to work with	.60	.61
SDS2	Willingness to have as a neighbour	.72	.72
SDS3	Willingness to share a meal with	.75	.74
SDS4	Willingness to become related to	.62	.63
	Alpha	.83	.84

Note. Critical $r_{(512, .05)}$ = .07.

Homoscedasticity

Table H13

Summary Statistics for Homoscedasticity on COMPETENCE Variable

Original variable	Transformed variable	COMPETENCE			
		Original data		Transformed data	
		Levene statistic	*p*	Levene statistic	*p*
REC-DISCRIM	REC-DISCRIM_T	0.16	.69	0.01	.92
SLR-DISCRIM	SLR-DISCRIM_T	0.49	.49	1.26	.26
SUBTLE	SUBTLE_T1	0.01	.94	0.27	.60
S1	S1_T	0.94	.33	5.52	.02
S2	S2_T	0.53	.47	1.20	.27
S3	S3_T	1.42	.23	1.08	.30
PROBANEED	PROBANEED_T	0.15	.69	0.48	.49
PROBATIME	PROBATIME_T	1.02	.31	0.19	.66
SS	n/a	0.10	.76	n/a	n/a
PJDSDS	PJDSDS_T1	3.08	.08	0.17	.68
SDS1	SDS1_T	0.01	.92	0.22	.64
SDS2	SDS2_T	1.51	.22	0.27	.60
SDS3	SDS3_T	2.93	.09	0.00	.99
SDS4	SDS4_T	0.85	.36	3.63	.06

Table H14

Summary Statistics for Homoscedasticity on WARMTH Variable

Original variable	Transformed variable	WARMTH			
		Original data		Transformed data	
		Levene statistic	*p*	Levene statistic	*p*
REC-DISCRIM	REC-DISCRIM_T	0.74	.39	1.18	.28
SLR-DISCRIM	SLR-DISCRIM_T	0.34	.56	0.17	.68
SUBTLE	SUBTLE_T1	0.71	.40	0.61	.44
S1	S1_T	0.00	.99	0.06	.81
S2	S2_T	2.81	.09	2.45	.12
S3	S3_T	0.00	.95	0.04	.85
PROBANEED	PROBANEED_T	0.05	.82	0.02	.90
PROBATIME	PROBATIME_T	4.90	.03	2.55	.11
SS	n/a	1.62	.20	n/a	n/a
PJDSDS	PJDSDS_T1	3.35	.07	0.64	.42
SDS1	SDS1_T	2.86	.09	6.13	.01
SDS2	SDS2_T	0.59	.44	0.17	.68
SDS3	SDS3_T	2.17	.14	0.05	.82
SDS4	SDS4_T	1.86	.17	0.27	.61

Table H15

Summary Statistics for Homoscedasticity on MINDSET Variable

Original variable	Transformed variable	MINDSET			
		Original data		Transformed data	
		Levene statistic	*p*	Levene statistic	*p*
REC-DISCRIM	REC-DISCRIM_T	3.22	.07	2.44	.12
SLR-DISCRIM	SLR-DISCRIM_T	0.46	.50	1.04	.31
SUBTLE	SUBTLE_T1	0.82	.37	0.58	.45
S1	S1_T	1.10	.29	1.22	.27
S2	S2_T	0.25	.62	0.48	.49
S3	S3_T	1.12	.29	1.31	.25
PROBANEED	PROBANEED_T	0.40	.53	0.57	.45
PROBATIME	PROBATIME_T	1.48	.22	1.87	.17
SS	n/a	0.05	.83	n/a	n/a
PJDSDS	PJDSDS_T1	0.18	.67	1.04	.31
SDS1	SDS1_T	0.19	.66	0.66	.42
SDS2	SDS2_T	0.14	.71	0.02	.89
SDS3	SDS3_T	1.16	.28	1.31	.25
SDS4	SDS4_T	4.69	.03	5.28	.02

Correlated errors

Table H16

Regression Analysis Summary for Age Predicting Dependent Variables (Original Data)

Dependent variable	*b*	*SE*	β	*t*	*p*
REC-DISCRIM	.00	.02	-.01	-0.15	.88
SLR-DISCRIM	.04	.04	.04	0.99	.32
SUBTLE	-.01	.02	-.03	-0.67	.50
PROBANEED	.11	.03	.13	3.05	.00
PROBATIME	.02	.04	.02	0.51	.61

Table H17

Regression Analysis Summary for Age Predicting Dependent Variables (Transformed Data)

Dependent variable	*b*	*SE*	β	*t*	*p*
REC-DISCRIM_T	.00	.01	.00	-0.07	.94
SLR-DISCRIM_T	-.02	.01	-.06	-1.33	.18
SUBTLE_T	.00	.01	-.03	-0.58	.56
PROBANEED_T	-.03	.01	-.13	-2.96	.00
PROBATIME_T	.00	.01	.02	0.50	.62

Table H18

Means, Standard Deviations, and Analysis of Variance for the Effect of Gender on Dependent Variables

Variable	Male (*n* = 159)	Female (*n* = 353)	*F(1, 510)*	*p*	η^2
	M (*SD*)	*M* (*SD*)			
REC-DISCRIM	2.81 (1.04)	2.61 (1.03)	3.73	.05	.01
REC-DISCRIM_T	1.65 (0.31)	1.58 (0.32)	4.07	.04	.01
SLR-DISCRIM	4.92 (1.67)	4.86 (1.69)	0.14	.71	.00
SLR-DISCRIM_T	1.69 (0.49)	1.70 (0.50)	0.09	.76	.00
SUBTLE	2.80 (0.84)	2.71 (0.81)	1.37	.24	.00
SUBTLE_T	1.64 (0.26)	1.62 (0.25)	1.16	.28	.00
PROBANEED	4.79 (1.50)	4.80 (1.46)	0.00	.96	.00
PROBANEED_T	1.74 (0.42)	1.74 (0.41)	0.00	.99	.00
PROBATIME	2.75 (1.63)	2.30 (1.45)	9.99	.00	.00
PROBATIME_T	0.35 (0.29)	0.28 (0.27)	8.28	.00	.02

Table H19

Means, Standard Deviations, and Analysis of Variance for the Effect of Education Level on Dependent Variables

Variable	Bachelor’s degree (*n* = 493)	Higher degree (*n* = 19)	*F(1, 510)*	*p*	η^2
	M (*SD*)	*M* (*SD*)			
REC-DISCRIM	2.68 (1.04)	2.58 (0.96)	0.17	.68	.00
REC-DISCRIM_T	1.60 (0.32)	1.58 (0.32)	0.16	.69	.00
SLR-DISCRIM	4.86 (1.67)	5.32 (1.89)	1.34	.25	.00
SLR-DISCRIM_T	1.70 (0.49)	1.54 (0.58)	1.96	.16	.00
SUBTLE	2.74 (0.82)	2.65 (0.69)	0.21	.65	.00
SUBTLE_T	1.62 (0.26)	1.60 (0.22)	0.17	.68	.00
PROBANEED	4.77 (1.47)	5.37 (1.34)	3.00	.08	.01
PROBANEED_T	1.75 (0.41)	1.58 (0.40)	3.16	.08	.01
PROBATIME	2.44 (1.53)	2.26 (1.37)	0.26	.61	.00
PROBATIME_T	0.30 (0.28)	0.28 (0.27)	0.13	.72	.00

Table H20

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Knowing Someone from AEC Countries on Dependent Variables

Variable	Don't know anyone from AEC (n = 252)	Know someone from AEC (n = 260)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
REC-DISCRIM	2.74 (1.07)	2.61 (1.00)	2.17	.14	.00
REC-DISCRIM_T	1.62 (0.33)	1.58 (0.31)	1.83	.18	.00
SLR-DISCRIM	4.70 (1.74)	5.05 (1.61)	5.39	.02	.01
SLR-DISCRIM_T	1.74 (0.51)	1.65 (0.49)	4.76	.03	.01
SUBTLE	2.80 (0.87)	2.67 (0.76)	3.44	.06	.01
SUBTLE_T	1.64 (0.27)	1.61 (0.24)	2.57	.11	.01
PROBANEED	4.74 (1.50)	4.85 (1.43)	0.69	.41	.00
PROBANEED_T	1.76 (0.42)	1.73 (0.41)	0.64	.42	.00
PROBATIME	2.52 (1.60)	2.35 (1.44)	1.59	.21	.00
PROBATIME_T	0.31 (0.28)	0.29 (0.27)	0.93	.33	.00

Table H21

Means, Standard Deviations, and Analysis of Variance for the Effect of Faculty on Dependent Variables

Variable	Social sciences (n = 136)	Business, finance, economics (n = 204)	Humanities (n = 110)	Industrial technology and management (n = 16)	Applied science (n = 46)	$F(4, 507)$	p	η^2
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)			
REC-DISCRIM	2.68 (1.08)	2.65 (1.01)	2.54 (0.98)	3.13 (0.89)	2.96 (1.11)	2.16	.07	.02
REC-DISCRIM_T	1.60 (0.32)	1.60 (0.32)	1.56 (0.31)	1.75 (0.25)	1.69 (0.33)	2.16	.07	.02
SLR-DISCRIM	4.93 (1.79)	4.71 (1.64)	4.96 (1.74)	5.56 (1.26)	5.02 (1.47)	1.35	.25	.01
SLR-DISCRIM_T	1.67 (0.53)	1.75 (0.48)	1.66 (0.52)	1.51 (0.41)	1.67 (0.45)	1.42	.23	.01
SUBTLE	2.68 (0.82)	2.71 (0.80)	2.69 (0.77)	3.19 (1.05)	2.96 (0.87)	2.39	.05	.02
SUBTLE_T	1.61 (0.26)	1.62 (0.25)	1.61 (0.25)	1.75 (0.30)	1.69 (0.26)	1.99	.09	.02
PROBANEED	5.02 (1.47)	4.56 (1.51)	4.79 (1.35)	5.00 (1.32)	5.13 (1.45)	2.85	.02	.02
PROBANEED_T	1.67 (0.42)	1.81 (0.42)	1.75 (0.38)	1.69 (0.40)	1.64 (0.42)	2.93	.02	.02
PROBATIME	2.33 (1.40)	2.72 (1.67)	2.12 (1.37)	1.69 (1.14)	2.52 (1.44)	4.15	.00	.03
PROBATIME_T	0.29 (0.27)	0.34 (0.29)	0.24 (0.26)	0.15 (0.24)	0.33 (0.27)	3.73	.00	.03

Table H22

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of SOC Variable on Dependent Variables

Variable	Social sciences (n = 136)	Other (n = 376)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
PROBANEED	5.02 (1.47)	4.72 (1.46)	4.39	.04	.01
PROBANEED_T	1.67 (0.42)	1.77 (0.41)	4.95	.03	.01
PROBATIME	2.33 (1.40)	2.47 (1.56)	.85	.36	.00
PROBATIME_T	0.29 (0.27)	0.30 (0.28)	.39	.53	.00

Table H23

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of HUMAN Variable on Dependent Variables

Variable	Humanities (n = 110)	Other (n = 402)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
PROBANEED	4.79 (1.35)	4.80 (1.50)	.00	.96	.00
PROBANEED_T	1.75 (0.38)	1.74 (0.43)	.10	.76	.00
PROBATIME	2.12 (1.37)	2.52 (1.55)	6.07	.01	.01
PROBATIME_T	0.24 (0.26)	0.31 (0.28)	5.65	.02	.01

Table H24

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of BIZ Variable on Dependent Variables

Variable	Business, economics, finance (n = 204)	Other (n = 308)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
PROBANEED	4.56 (1.51)	4.95 (1.42)	9.06	.00	.02
PROBANEED_T	1.81 (0.42)	1.70 (0.40)	8.54	.00	.02
PROBATIME	2.72 (1.67)	2.25 (1.39)	11.59	.00	.02
PROBATIME_T	0.34 (0.29)	0.27 (0.27)	8.63	.00	.02

Table H25

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of INDUS Variable on Dependent Variables

Variable	Industrial, technology management (n = 16)	Other (n = 496)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
PROBANEED	5.00 (1.32)	4.79 (1.47)	0.32	.57	.00
PROBANEED_T	1.69 (0.40)	1.74 (0.42)	0.27	.60	.00
PROBATIME	1.69 (1.14)	2.46 (1.53)	4.03	.04	.01
PROBATIME_T	0.15 (0.24)	0.30 (0.28)	4.57	.03	.01

Table H26

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of SCI Variable on Dependent Variables

Variable	Applied science (n = 46)	Other (n = 466)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
PROBANEED	5.13 (1.45)	4.76 (1.47)	2.62	.11	.01
PROBANEED_T	1.64 (0.42)	1.75 (0.41)	2.80	.09	.01
PROBATIME	2.52 (1.44)	2.43 (1.53)	0.16	.69	.00
PROBATIME_T	0.33 (0.27)	0.30 (0.28)	0.45	.50	.00

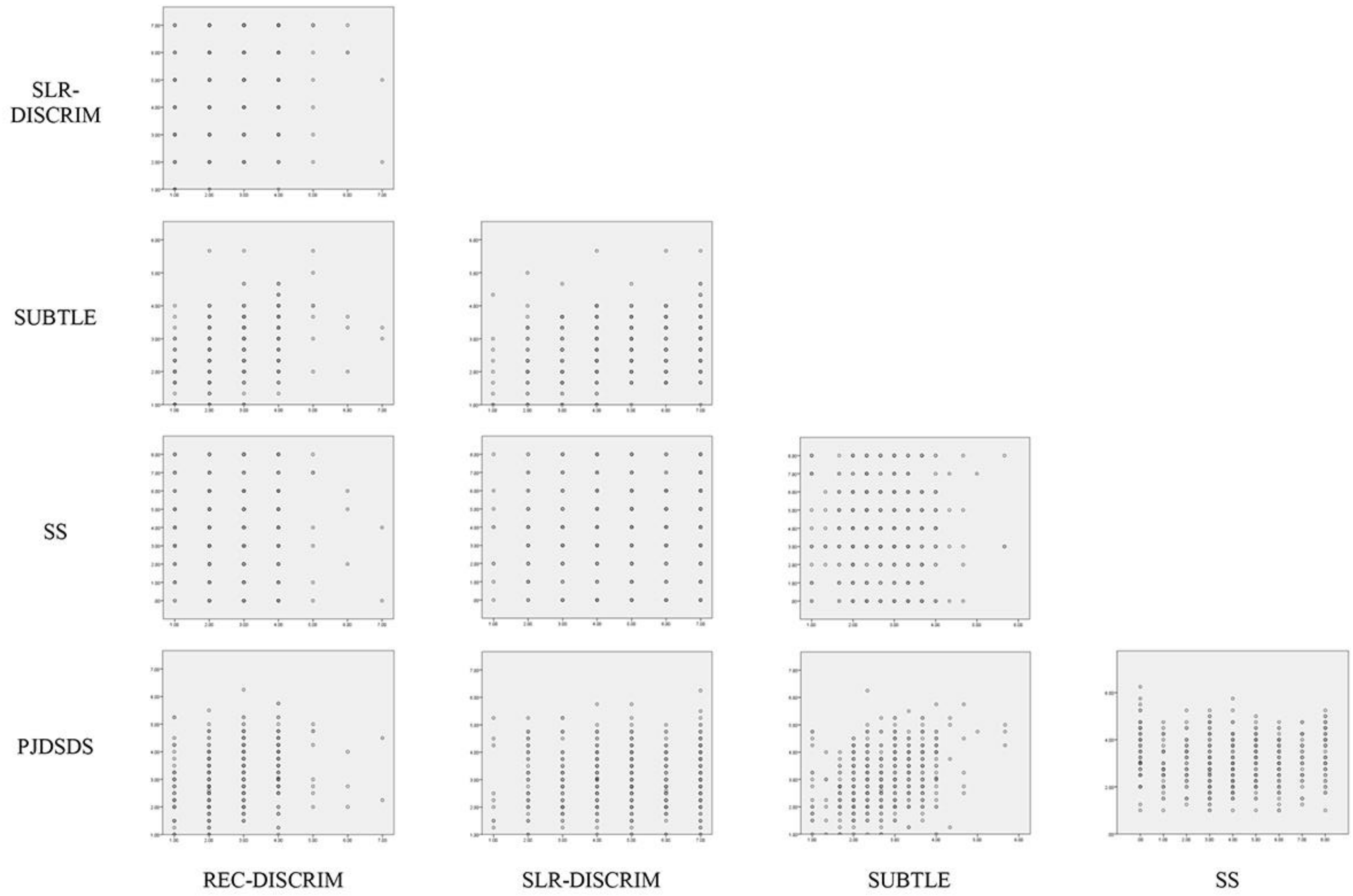

Figure H1. Scatterplot matrix of selected variables for Model 4a before data transformation.

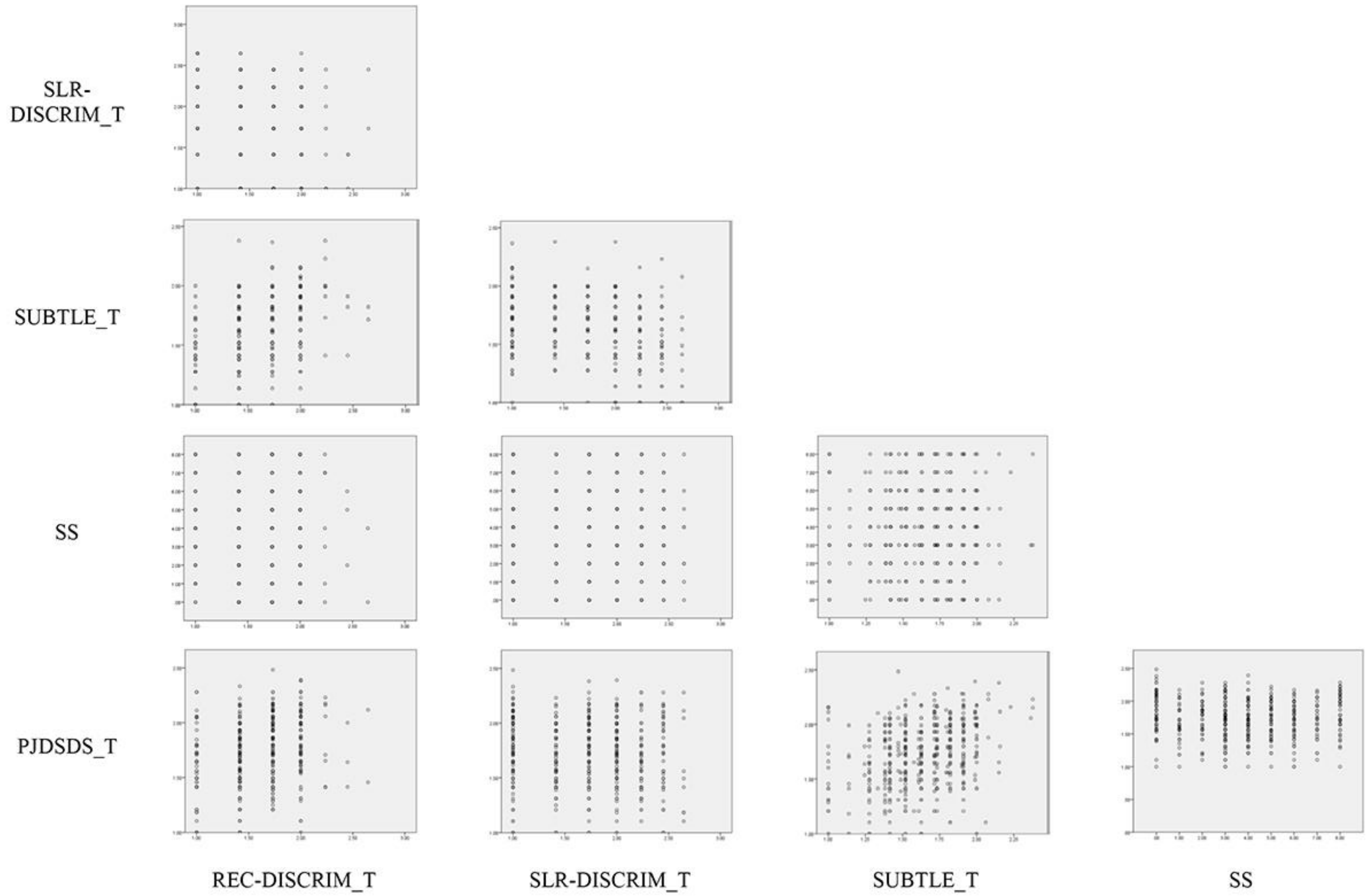

Figure H2. Scatterplot matrix of selected variables for Model 4b after data transformation.

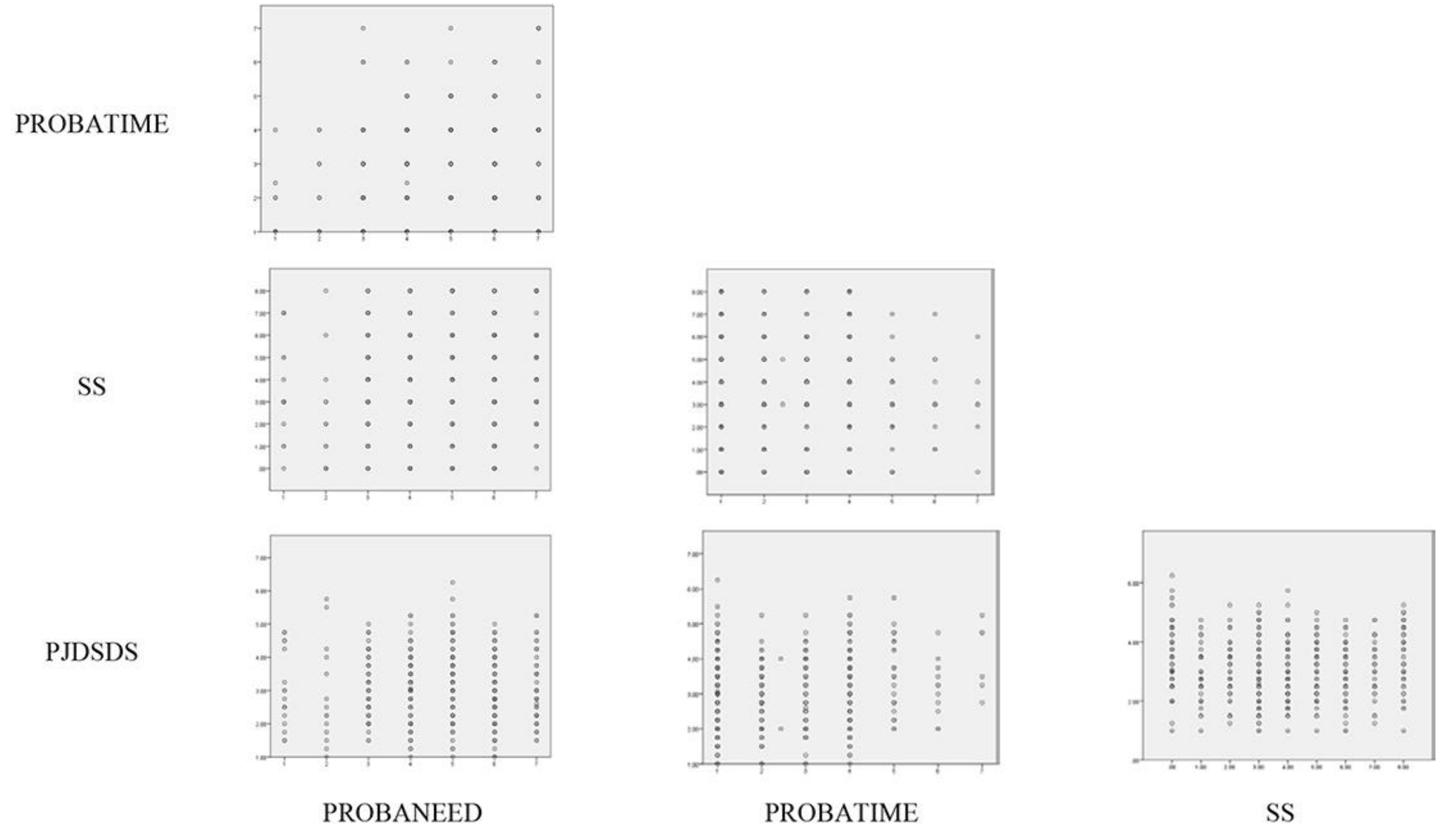

Figure H3. Scatterplot matrix of selected variables for Model 5a before data transformation.

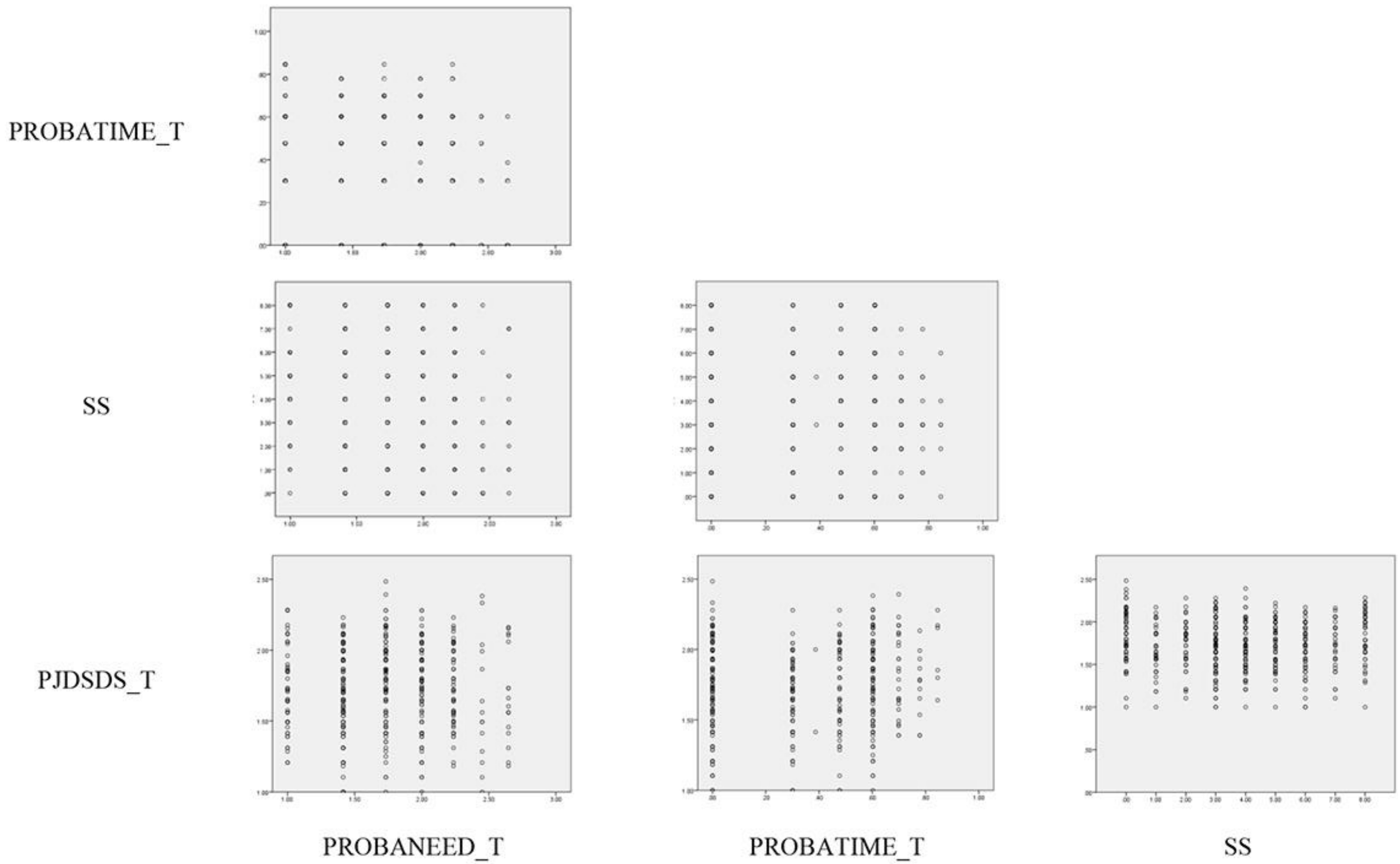

Figure H4. Scatterplot matrix of selected variables for Model 5b after data transformation.

Correlations among variables

Table H27

Correlations, Means, Standard Deviations, and Score Ranges of Study 2 Variables (Original Data)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. COMPETENCE	-														
2. WARMTH	.00	-													
3. MINDSET	.00	.00	-												
4. CxW	.58**	.58**	.00	-											
5. CxM	.58**	.00	.58**	.33**	-										
6. WxM	.00	.58**	.58**	.33**	.33**	-									
7. CxWxM	.38**	.38**	.38**	.65**	.65**	.65**	-								
8. REC-DISCRIM	.13**	.08	-.04	.14**	.03	.02	.05	-							
9. SLR-DISCRIM	.12**	-.01	.00	.01	.05	.01	.00	.22**	-						
10. SUBTLE	.14**	.05	-.04	.12**	.02	.00	.03	.41**	.22**	-					
11. PROBANEED	.07	.03	-.01	.06	.02	-.01	.03	.02	.14**	.04	-				
12. PROBATIME	.13**	.05	.03	.13**	.08	.05	.09*	.08	-.12**	.13**	.20**	-			
13. SS	-.03	-.03	.04	-.05	.01	.03	.00	-.03	.09*	.00	.13**	-.02	-		
14. PJDSDS	.25**	.23**	-.03	.33**	.15**	.17**	.25**	.28**	.08	.35**	-.04	.15**	.01	-	
15. AECFAMILEAR	.00	.05	-.02	.05	-.05	-.01	-.03	-.07	.10*	-.08	.04	.06	.03	-.18**	-
M	.50	.50	.50	.25	.25	.25	.13	2.67	4.88	2.73	4.80	2.44	3.86	3.06	.51
SD	.50	.50	.50	.43	.43	.43	.33	1.03	1.68	.82	1.47	1.52	2.32	.99	.50
Score range	0-1	0-1	0-1	0-1	0-1	0-1	0-1	1-7	1-7	1-7	1-7	1-7	0-8	1-7	0-1

*$p < .05$, **$p < .01$ (2-tailed).

Table H28

Correlations, Means, and Standard Deviations of Study 2 Variables (Transformed Data)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. COMPETENCE	-															
2. WARMTH	.00	-														
3. MINDSET	.00	.00	-													
4. CxW	.58**	.58**	.00	-												
5. CxM	.58**	.00	.58**	.33**	-											
6. WxM	.00	.58**	.58**	.33**	.33**	-										
7. CxWxM	.38**	.38**	.38**	.65**	.65**	.65**	-									
8. REC-DISCRIM_T	.13**	.09	-.04	.14**	.04	.03	.04	-								
9. SLR-DISCRIM_T	-.12**	.01	-.01	-.02	-.05	-.01	-.01	-.23**	-							
10. SUBTLE_T	.14**	.04	-.05	.12**	.02	.00	.03	.42**	-.22**	-						
11. PROBANEED_T	-.08	-.03	.00	-.07	-.02	.00	-.04	-.02	.15**	-.05	-					
12. PROBATIME_T	.14**	.03	.02	.13**	.08	.04	.08	.10*	.13**	.13**	-.18**	-				
13. SS	-.03	-.03	.04	-.05	.01	.03	.00	-.03	-.09*	.00	-.14**	-.01	-			
14. PJDSDS_T	.24**	.22**	-.04	.31**	.14**	.16**	.24**	.28**	-.09*	.34**	.04	.12**	.01	-		
15. GENDER	-.04	-.04	-.02	-.10*	-.03	-.05	-.09*	-.09*	.01	-.05	.00	-.13**	-.03	-.03	-	
16. AECFAMILIAR	.00	.05	-.02	.05	-.05	-.01	-.03	-.06	-.10*	-.07	-.04	-.04	.03	-.18**	.04	-
M	.50	.50	.50	.25	.25	.25	.13	1.60	1.70	1.62	1.74	.30	3.86	1.71	.69	.51
SD	.50	.50	.50	.43	.43	.43	.33	.32	.50	.25	.42	.28	2.32	.29	.46	.50

Note. All dependent variables' high scores reflect higher in negative valences, except for SLR-DISCRIM_T and PROBATIME_T which were reverse due to data transformation using squared term reflection. The higher score reflect lower discrimination.

**p* < .05, ***p* < .01 (2-tailed).

Table H29

Means and Standard Deviations of Dependent Variables by Mindset Manipulation Groups and Bonferroni Post Hoc Test

Measure	Cooperative [1]	Competitive [2]	Post hoc
	M (*SD*)	*M* (*SD*)	
REC-DISCRIM	2.72 (1.09)	2.63 (0.97)	n/a
SLR-DISCRIM	4.88 (1.67)	4.88 (1.70)	n/a
SUBTLE	2.77 (0.83)	2.70 (0.80)	n/a
PROBANEED	4.81 (1.44)	4.79 (1.50)	n/a
PROBATIME	2.39 (1.48)	2.48 (1.56)	n/a
SS	3.77 (2.31)	3.94 (2.34)	n/a

Note. The numbers in square brackets in column heads refer to the numbers used for illustrating significant differences in the "Post hoc" column .n/a = overall ANOVA test is not significant thus post hoc test was not carried out.

Table H30

Means and Standard Deviations of Dependent Variables by Stereotype Groups and Bonferroni Post Hoc Test

Measure	Singapore [1]	Malaysia [2]	Laos [3]	Myanmar [4]	Post hoc (Original data)	Post hoc (Transformed data)
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)		
REC-DISCRIM	2.48 (1.02)	2.59 (0.96)	2.70 (1.03)	2.92 (1.08)	1 < 4	1 < 4
SLR-DISCRIM	4.55 (1.70)	4.81 (1.68)	5.23 (1.56)	4.91 (1.74)	1 < 3	1 < 3
SUBTLE	2.61 (0.85)	2.64 (0.80)	2.79 (0.77)	2.91 (0.83)	1 < 4, 2 < 4	1 < 4
PROBA NEED	4.64 (1.54)	4.73 (1.44)	4.87 (1.39)	4.95 (1.50)	n/a	n/a
PROBA TIME	2.25 (1.41)	2.24 (1.53)	2.48 (1.46)	2.78 (1.63)	1 < 4, 2 < 4	1 < 4, 2 < 4
SS	3.93 (2.34)	3.93 (2.34)	3.91 (2.15)	3.66 (2.46)	n/a	n/a

Note. The numbers in square brackets in column heads refer to the numbers used for illustrating significant differences in the "Post hoc" column. n/a = overall ANOVA test is not significant thus post hoc test was not carried out.

Path analysis results

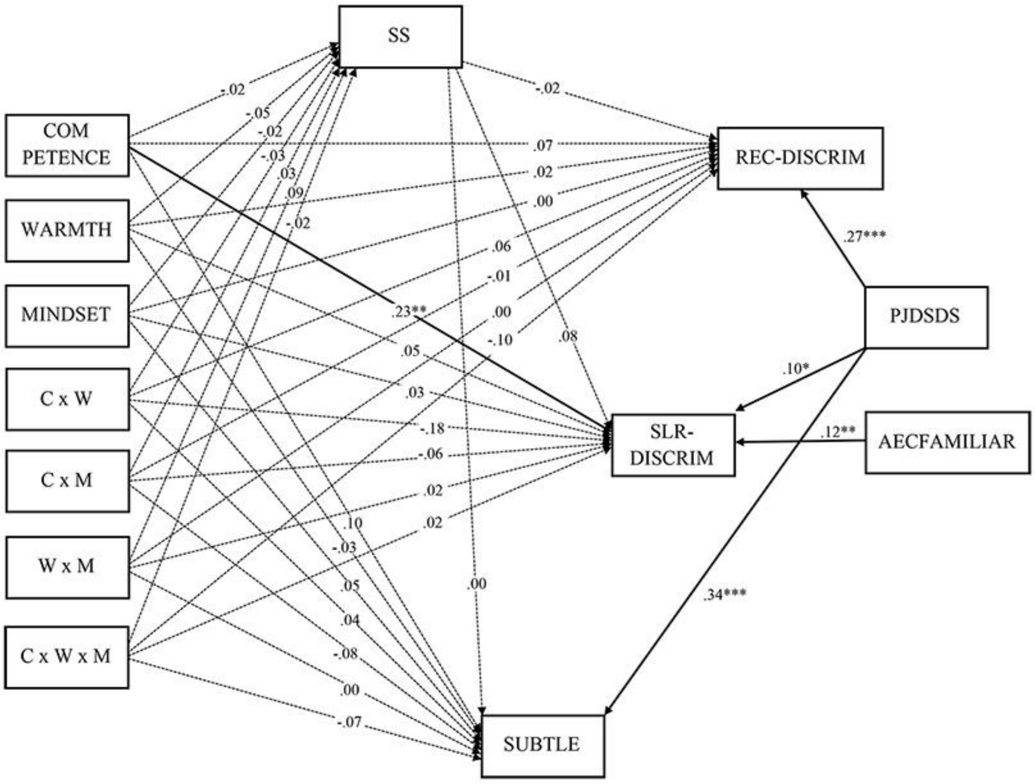

Figure H5. Standardized coefficients for Model 4b (Original data).

Chi-square (7, *N* = 512) = 100.19, *p* < .001, GFI = .97, RMR = .05, standardized RMR = .04, RMSEA = .16, CFI = .97. Statistically significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. **p* < .05. ***p* < .01. ****p* < .001.

Table H31

Direct, Indirect, and Total Effects on Dependent Variables of Model 4a (Original data)

Variable		REC-DISCRIM			SLR-DISCRIM			SUBTLE			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.07	.00	.07	.23**	.00	.23**	.10	.00	.10	-.02	-	-.02
	b	.15	.00	.15	.77**	-.01	.76**	.17	.00	.17	-.09	-	-.09
	SE	.18	.01	.18	.29	.03	.29	.14	.00	.14	.41	-	.41
	t	.83	.21	.84	2.62	-.23	2.61	1.22	-.05	1.23	-.23	-	-.23
WARM-TH	β	.02	.00	.02	.05	-.01	.05	-.03	.00	-.03	-.05	-	-.05
	b	.04	.00	.04	.18	-.02	.17	-.05	.00	-.05	-.25	-	-.25
	SE	.18	.01	.17	.29	.03	.29	.14	.00	.14	.41	-	.41
	t	.20	.42	.22	.62	-.58	.57	-.34	-.05	-.34	-.61	-	-.61
MIND-SET	β	.00	.00	.01	.03	.00	.03	.05	.00	.05	-.02	-	-.02
	b	.01	.00	.01	.09	-.01	.09	.07	.00	.07	-.11	-	-.11
	SE	.18	.01	.18	.29	.03	.29	.14	.00	.14	.41	-	.41
	t	.05	.24	.06	.32	-.27	.29	.55	-.05	.55	-.27	-	-.27
CxW	β	.06	.00	.07	-.18	.00	-.18	.04	.00	.04	-.03	-	-.03
	b	.15	.00	.16	-.70	-.01	-.71	.08	.00	.08	-.17	-	-.17
	SE	.25	.01	.25	.42	.04	.41	.19	.00	.19	.58	-	.58
	t	.62	.26	.63	-1.68	-.29	-1.71	.42	-.05	.42	-.30	-	-.30
CxM	β	-.01	.00	-.01	-.06	.00	-.06	-.08	.00	-.08	.03	-	.03
	b	-.02	.00	-.02	-.25	.01	-.24	-.16	.00	-.16	.14	-	.14
	SE	.25	.01	.25	.41	.04	.41	.19	.00	.19	.58	-	.58
	t	-.07	-.22	-.08	-.61	.24	-.59	-.81	.05	-.82	.24	-	.24
WxM	β	.00	.00	.00	.02	.01	.02	.00	.00	.00	.09	-	.09
	b	.01	-.01	.01	.05	.03	.08	.00	.00	.00	.50	-	.50
	SE	.25	.01	.25	.42	.04	.41	.19	.01	.19	.58	-	.58
	t	.06	-.48	.04	.12	.79	.20	-.02	.05	-.02	.86	-	.87
CxWxM	β	-.10	.00	-.10	.02	.00	.02	-.07	.00	-.07	-.02	-	-.02
	b	-.30	.00	-.30	.09	-.01	.08	-.18	.00	-.18	-.16	-	-.16
	SE	.35	.01	.35	.59	.05	.58	.27	.00	.27	.83	-	.82
	t	-.87	.18	-.87	.15	-.19	.13	-.65	-.05	-.66	-.19	-	-.19
SS	β	-.02	-	-.02	.08	-	.09	.00	-	.00	-	-	-
	b	-.01	-	-.01	.06	-	.06	.00	-	.00	-	-	-
	SE	.02	-	.02	.03	-	.03	.02	-	.02	-	-	-
	t	-.57	-	-.58	1.94	-	1.96	.05	-	.05	-	-	-
PJDSDS	β	.27***	-	.27***	.10*	-	.10*	.34***	-	.34***	-	-	-
	b	.28***	-	.28***	.16*	-	.16*	.28***	-	.28***	-	-	-
	SE	.05	-	.05	.08	-	.08	.04	-	.04	-	-	-
	t	5.82	-	5.87	2.01	-	2.03	7.71	-	7.78	-	-	-
AEC FAMI-LIAR	β	-	-	-	.12**		.12**	-	-	-	-	-	-
	b	-	-	-	.41**	-	.41**	-	-	-	-	-	-
	SE	-	-	-	.15	-	.15	-	-	-	-	-	-
	t	-	-	-	2.71	-	2.74	-	-	-	-	-	-
R^2		.10			.04			.13			.01		

Chi-square (7, *N* = 512) = 100.19, *p* < .001, GFI = .97, RMR = .05, standardized RMR = .04, RMSEA = .16, CFI = .97.

*p < .05. **p < .01. ***p < .001.

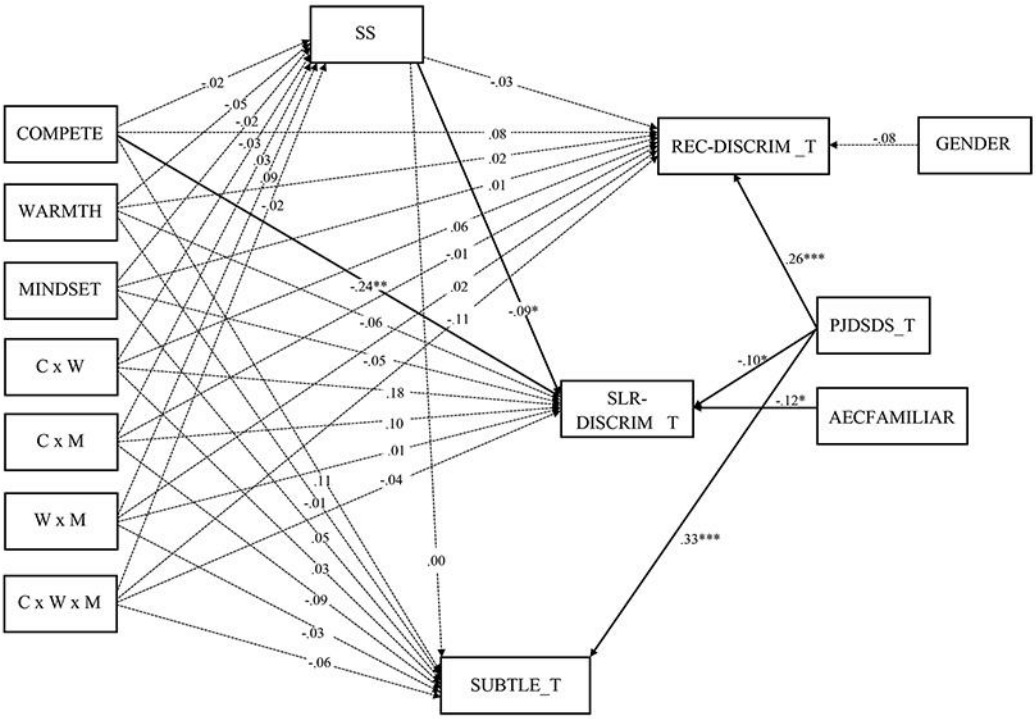

Figure H6. Standardized coefficients for Model 4b (Transformed data).

Chi-square (9, $N = 512$) = 125.60, $p < .001$, GFI = .96, RMR = .01, standardized RMR = .05, RMSEA = .16, CFI = .96. Statistically significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. $*p < .05$. $**p < .01$. $***p < .001$.

Table H32

Direct, Indirect, and Total Effects on Dependent Variables of Model 4b (Transformed data)

Variable		REC-DISCRIM_T			SLR-DISCRIM_T[a]			SUBTLE_T			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.08	.00	.08	-.24**	.00	-.24**	.11	.00	.11	-.02	-	-.02
	b	.05	.00	.05	-.24**	.00	-.24**	.06	.00	.06	-.09	-	-.09
	SE	.05	.00	.05	.09	.01	.09	.04	.00	.04	.41	-	.41
	t	.93	.22	.94	-2.78	.23	-2.78	1.34	-.02	1.36	-.23	-	-.23
WARM-TH	β	.02	.00	.02	-.06	.01	-.06	-.01	.00	-.01	-.05	-	-.05
	b	.01	.00	.02	-.06	.01	-.06	-.01	.00	-.01	-.25	-	-.25
	SE	.05	.00	.05	.09	.01	.09	.04	.00	.04	.41	-	.41
	t	.25	.47	.27	-.72	.59	-.67	-.14	-.02	-.14	-.61	-	-.61
MIND-SET	β	.01	.00	.01	-.05	.00	-.05	.05	.00	.05	-.02	-	-.02
	b	.01	.00	.01	-.05	.00	-.05	.03	.00	.03	-.11	-	-.11
	SE	.05	.00	.05	.09	.01	.09	.04	.00	.04	.41	-	.41
	t	.09	.25	.10	-.62	.27	-.60	.65	-.02	.65	-.27	-	-.27
CxW	β	.06	.00	.06	.18	.00	.19	.03	.00	.03	-.03	-	-.03
	b	.04	.00	.04	.21	.00	.22	.02	.00	.02	-.17	-	-.17
	SE	.08	.00	.08	.12	.01	.12	.06	.00	.06	.58	-	.58
	t	.54	.28	.56	1.73	.29	1.76	.31	-.02	.32	-.29	-	-.30
CxM	β	-.01	.00	-.01	.10	.00	.10	-.09	.00	-.09	.03	-	.03
	b	.00	.00	-.01	.11	.00	.11	-.05	.00	-.05	.14	-	.14
	SE	.08	.00	.08	.12	.00	.12	.06	.00	.06	.58	-	.58
	t	-.06	-.23	.56	.93	-.02	.91	-.83	.02	-.84	.24	-	.24
WxM	β	.02	.00	.02	.01	-.01	.00	-.03	.00	-.03	.09	-	.09
	b	.02	.00	.02	.01	.00	.00	-.02	.00	-.02	.50	-	.50
	SE	.08	.00	.08	.12	.00	.12	.06	.00	.06	.58	-	.58
	t	.22	-.56	.20	.07	.02	.00	-.25	.02	-.25	.86	-	.87
CxW xM	β	-.11	.00	-.11	-.04	.00	-.04	-.06	.00	-.06	-.02	-	-.02
	b	-.11	.00	-.11	-.07	.00	-.06	-.05	.00	-.05	-.16	-	-.16
	SE	.11	.00	.11	.17	.02	.17	.09	.00	.08	.83	-	.82
	t	-1.02	.19	-1.03	-.38	.19	-.36	-.54	-.02	-.54	-.19	-	-.19
SS	β	-.03	-	-.03	-.09*	-	-.09*	.00	-	.00	-	-	-
	b	.00	-	.00	-.02*	-	-.02*	.00	-	.00	-	-	-
	SE	.01	-	.01	.01	-	.01	.01	-	.01	-	-	-
	t	-.72	-	-.73	-2.02	-	-2.04	.02	-	.02	-	-	-
PJD SDS	β	.26***	-	.26***	-.10*	-	-.10*	.33***	-	.33***	-	-	-
	b	.29***	-	.29***	-.17*	-	-.17*	.29***	-	.29***	-	-	-
	SE	.05	-	.05	.08	-	.08	.04	-	.04	-	-	-
	t	5.82	-	5.88	-2.10	-	-2.13	7.49	-	7.56	-	-	-
AEC FAMI-LIAR	β	-	-	-	-.12*	-	-.12**	-	-	-	-	-	-
	b	-	-	-	-.11*	-	-.11**	-	-	-	-	-	-
	SE	-	-	-	.04	-	.04	-	-	-	-	-	-
	t	-	-	-	-2.58	-	-2.60	-	-	-	-	-	-
R^2			.10			.05			.13			.01	
Chi-square (9, *N* = 512) = 125.60, *p* < .001, GFI = .96, RMR = .01, standardized RMR = .05, RMSEA = .16, CFI = .96.													

[a]SLR-DISCRIM_T was transformed by square term reflection thus low score reflect high discrimination.

**p* < .05. ***p* < .01. ****p* < .001.

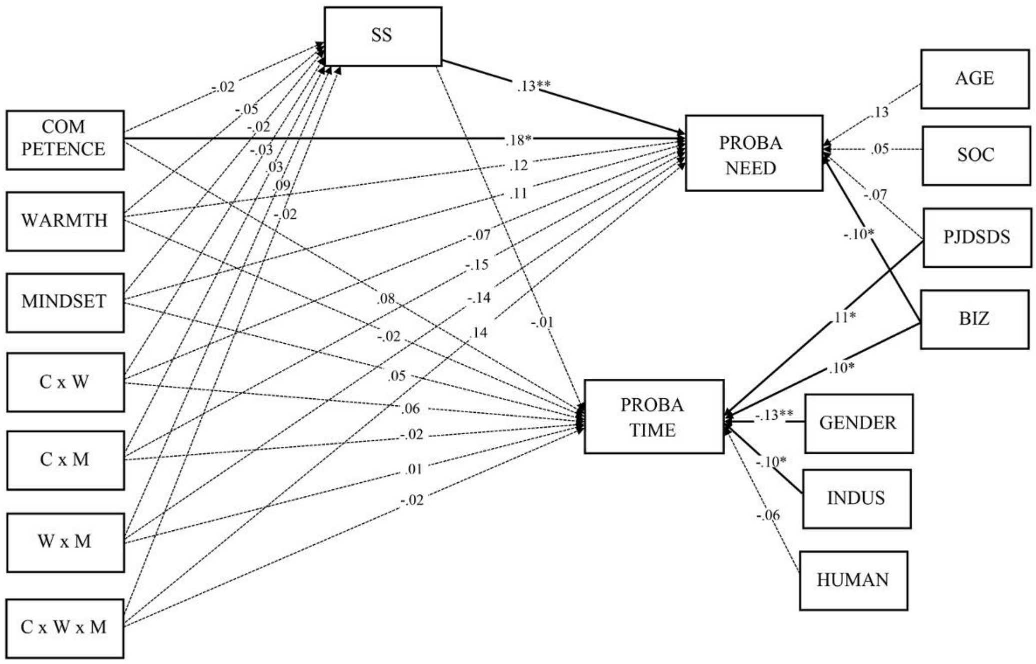

Figure H7. Standardized coefficients for Model 5a (Original data).

Chi-square (13, N = 512) = 47.86, p < .001, GFI = .99, RMR = .05, standardized RMR = .02, RMSEA = .07, CFI = .99. Statistically significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. *p < .05. **p < .01. ***p < .001.

Table H33

Direct, Indirect, and Total Effects on Dependent Variables of Model 5a (Original Data)

Variable		PROBANEED			PROBATIME			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	.18*	.00	.18*	.08	.00	.08	-.02	-	-.02
	b	.54*	-.01	.53*	.25	.00	.25	-.09	-	-.09
	SE	.26	.03	.26	.26	.00	.26	.42	-	.41
	t	2.12	-.23	2.07	.95	.15	.96	-.23	-	-.23
WARMTH	β	.12	-.01	.11	-.02	.00	-.02	-.05	-	-.05
	b	.35	-.02	.33	-.06	.00	-.05	-.25	-	-.25
	SE	.26	.03	.26	.26	.01	.26	.42	-	.41
	t	1.37	-.59	1.28	-.21	.19	-.21	-.60	-	-.60
MINDSET	β	.11	.00	.10	.05	.00	.05	-.02	-	-.02
	b	.31	-.01	.30	.15	.00	.15	-.11	-	-.11
	SE	.26	.03	.26	.26	.00	.26	.42	-	.41
	t	1.22	-.26	1.18	.58	.16	.58	-.26	-	-.26
CxW	β	-.07	.00	-.08	.06	.00	.06	-.03	-	-.03
	b	-.25	-.01	-.26	.21	.00	.21	-.17	-	-.17
	SE	.36	.05	.36	.37	.01	.37	.59	-	.59
	t	-.68	-.29	-.71	.57	.16	.58	-.29	-	-.29
CxM	β	-.15	.00	-.15	-.02	.00	-.02	.03	-	.03
	b	-.51	.01	-.50	-.08	.00	-.09	.14	-	.14
	SE	.36	.05	.36	.37	.01	.37	.59	-	.59
	t	-1.43	.24	-1.38	-.23	-.15	-.23	.24	-	.24
WxM	β	-.14	.01	-.13	.01	.00	.01	.09	-	.09
	b	-.47	.04	-.43	.05	.00	.05	.50	-	.50
	SE	.36	.05	.36	.37	.01	.37	.59	-	.59
	t	-1.31	.82	-1.19	.14	-.19	.13	.85	-	.85
CxWxM	β	.14	.00	.13	-.02	.00	-.02	-.02	-	-.02
	b	.60	-.01	.59	-.08	.00	-.08	-.16	-	-.16
	SE	.51	.07	.51	.52	.01	.52	.83	-	.83
	t	1.19	-.19	1.15	-.15	.14	-.15	-.19	-	-.19
SS	β	.13**	-	.13**	-.01	-	-.01	-	-	-
	b	.08**	-	.08**	-.01	-	-.01	-	-	-
	SE	.03	-	.03	.03	-	.03	-	-	-
	t	2.97	-	2.96	-.20	-	-.20	-	-	-
PJDSDS	β	-.07	-	-.07	.11*	-	.11*	-	-	-
	b	-.10	-	-.10	.17*	-	.17*	-	-	-
	SE	.07	-	.07	.07	-	.07	-	-	-
	t	-1.46	-	-1.46	2.41	-	2.41	-	-	-

(continued)

Variable		PROBANEED			PROBATIME			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
BIZ	β	-.10*	-	-.10*	.10*	-	.10*	-	-	-
	b	-.30*	-	-.30*	.32*	-	.32*	-	-	-
	SE	.15	-	.15	.15	-	.15	-	-	-
	t	-1.99	-	-1.99	2.10	-	2.09	-	-	-
AGE	β	.13**	-	.13**	-	-	-	-	-	-
	b	.10**	-	.10**	-	-	-	-	-	-
	SE	.03	-	.03	-	-	-	-	-	-
	t	2.87	-	2.88	-	-	-	-	-	-
SOC	β	.05	-	.05	-	-	-	-	-	-
	b	.15	-	.15	-	-	-	-	-	-
	SE	.17	-	.17	-	-	-	-	-	-
	t	.92	-	.92	-	-	-	-	-	-
GENDER	β	-	-	-	-.13**	-	-.13**	-	-	-
	b	-	-	-	-.44**	-	-.44**	-	-	-
	SE	-	-	-	.14	-	.14	-	-	-
	t	-	-	-	-3.04	-	-3.04	-	-	-
INDUS	β	-	-	-	-.10*	-	-.10*	-	-	-
	b	-	-	-	-.84*	-	-.84*	-	-	-
	SE	-	-	-	.39	-	.39	-	-	-
	t	-	-	-	-2.16	-	-2.16	-	-	-
HUMAN	β	-	-	-	-.06	-	-.06	-	-	-
	b	-	-	-	-.21	-	-.21	-	-	-
	SE	-	-	-	.18	-	.18	-	-	-
	t	-	-	-	-1.16	-	-1.16	-	-	-
R^2			.07			.08			.01	
Chi-square (13, *N* = 512) = 47.86, *p* < .001, GFI = .99, RMR = .05, standardized RMR = .02, RMSEA = .07, CFI = .99.										

$*p < .05$. $**p < .01$. $***p < .001$.

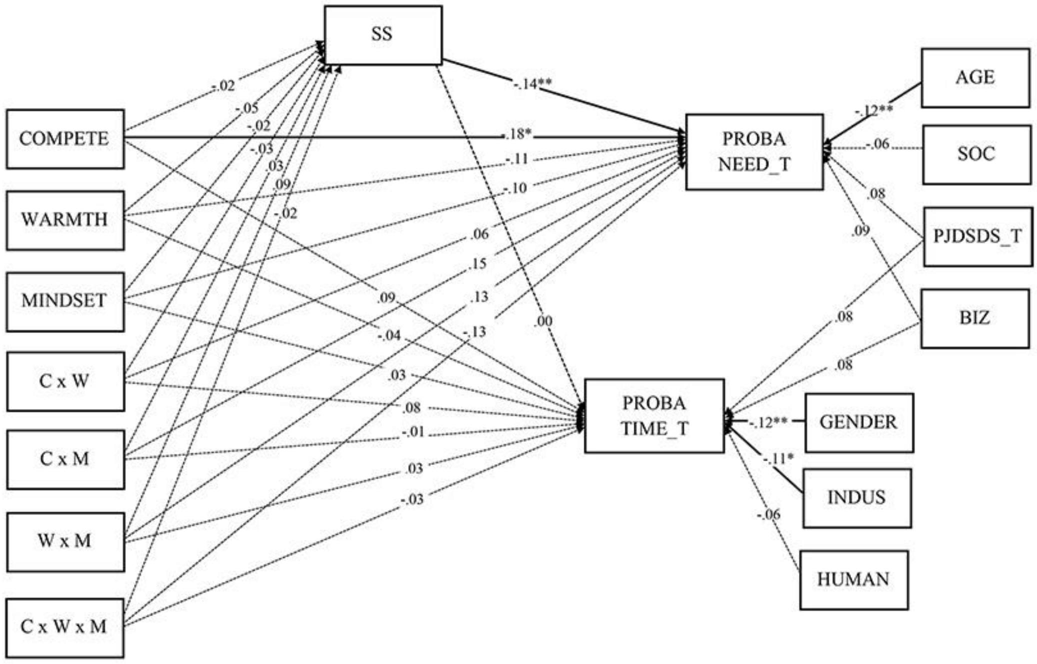

Figure H8. Standardized coefficients for Model 5b (Transformed data).

Chi-square (13, *N* = 512) = 42.66, *p* < .001, GFI = .99, RMR = .03, standardized RMR = .02, RMSEA = .07, CFI = .99. Statistically significant direct effects are represented with solid lines and non-significant direct effects are represented with dotted lines. The variance–covariance matrix between independent variables is omitted. **p* < .05. ***p* < .01. ****p* < .001.

Table H34

Direct, Indirect, and Total Effects on Dependent Variables of Model 5b (Transformed Data)

Variable		PROBANEED_T[a]			PROBATIME_T			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
COMPE-TENCE	β	-.18*	.00	-.18*	.09	.00	.09	-.02	-	-.02
	b	-.15*	.00	-.15*	.05	.00	.05	-.09	-	-.09
	SE	.07	.01	.07	.05	.00	.05	.42	-	.41
	t	-2.07	.23	-2.02	1.04	-.08	1.04	-.23	-	-.23
WARMTH	β	-.11	.01	-.10	-.04	.00	-.04	-.05	-	-.05
	b	-.09	.01	-.09	-.02	.00	-.02	-.25	-	-.25
	SE	.07	.01	.07	.05	.00	.05	.42	-	.41
	t	-1.27	.59	-1.17	.48	-.08	-.48	-.60	-	-.60
MINDSET	β	-.10	.00	-.10	.03	.00	.03	-.02	-	-.02
	b	-.09	.00	-.08	.02	.00	.02	-.11	-	-.11
	SE	.07	.01	.07	.05	.00	.05	.42	-	.41
	t	-1.18	.26	-1.14	.34	-.08	.34	-.26	-	-.26
CxW	β	.06	.00	.06	.08	.00	.08	-.03	-	-.03
	b	.05	.00	.06	.05	.00	.05	-.17	-	-.17
	SE	.10	.02	.10	.07	.00	.07	.59	-	.59
	t	.53	.29	.56	.77	-.08	.77	-.29	-	-.29
CxM	β	.15	.00	.14	-.01	.00	-.01	.03	-	.03
	b	.14	.00	.14	-.01	.00	-.01	.14	-	.14
	SE	.10	.02	.10	.07	.00	.07	.59	-	.59
	t	1.39	-.24	1.35	-.12	.08	-.12	.24	-	.24
WxM	β	.13	-.01	.11	.03	.00	.03	.09	-	.09
	b	.12	-.01	.11	.02	.00	.02	.50	-	.50
	SE	.10	.02	.10	.07	.00	.07	.59	-	.59
	t	1.18	-.83	1.05	.28	.08	.29	.85	-	.85
CxWxM	β	-.13	.00	-.13	-.03	.00	-.03	-.02	-	-.02
	b	-.16	.00	-.16	-.03	.00	-.03	-.16	-	-.16
	SE	.14	.02	.15	.10	.00	.10	.83	-	.83
	t	-1.13	.19	-1.09	-.28	-.08	-.29	-.19	-	-.19
SS	β	-.14**	-	-.14**	.00	-	.00	-	-	-
	b	-.02**	-	-.02**	.00	-	.00	-	-	-
	SE	.01	-	.01	.01	-	.01	-	-	-
	t	-3.22	-	-3.23	.08	-	.08	-	-	-
PJDSDS	β	.08	-	.08	.08	-	.08	-	-	-
	b	.11	-	.11	.07	-	.07	-	-	-
	SE	.07	-	.07	.04	-	.04	-	-	-
	t	1.63	-	1.63	1.64	-	1.64	-	-	-

(continued)

Variable		PROBANEED_T[a]			PROBATIME_T			SS		
		DE	IE	TE	DE	IE	TE	DE	IE	TE
BIZ	β	.09	-	.09	.08	-	.08	-	-	-
	b	.08	-	.08	.05	-	.05	-	-	-
	SE	.04	-	.04	.03	-	.03	-	-	-
	t	1.81	-	1.81	1.65	-	1.65	-	-	-
AGE	β	-.12**	-	-.12**	-	-	-	-	-	-
	b	-.03**	-	-.03**	-	-	-	-	-	-
	SE	.01	-	.01	-	-	-	-	-	-
	t	-2.82	-	-2.82	-	-	-	-	-	-
SOC	β	-.06	-	-.06	-	-	-	-	-	-
	b	-.05	-	-.05	-	-	-	-	-	-
	SE	.05	-	.05	-	-	-	-	-	-
	t	-1.12	-	-1.12	-	-	-	-	-	-
GENDER	β	-	-	-	-.12**	-	-.12**	-	-	-
	b	-	-	-	-.07**	-	-.07**	-	-	-
	SE	-	-	-	.03	-	.03	-	-	-
	t	-	-	-	-2.74	-	-2.74	-	-	-
INDUS	β	-	-	-	-.11*	-	-.11*	-	-	-
	b	-	-	-	-.17*	-	-.17*	-	-	-
	SE	-	-	-	.07	-	.07	-	-	-
	t	-	-	-	-2.39	-	-2.39	-	-	-
HUMAN	β	-	-	-	-.06	-	-.06	-	-	-
	b	-	-	-	-.04	-	-.04	-	-	-
	SE	-	-	-	.03	-	.03	-	-	-
	t	-	-	-	-1.31	-	-1.31	-	-	-
R^2		.07			.07			.01		

Chi-square (13, *N* = 512) = 42.66, *p* < .001, GFI = .99, RMR = .03, standardized RMR = .02, RMSEA = .07, CFI = .99.

[a]PROBANEED_T was transformed by square term reflection thus low score reflect high discrimination.

**p* < .05. ***p* < .01. ****p* < .001.

Appendix I:

Manipulation Checks

Manipulation Checks for Study 1

Table I1

Corrected Item-Total Correlation and Cronbach's Alpha for Competence Rating (2 Items)

Item	Description	CICT (N = 220)
C1	Competent	.85
C2	Capable	.85
	Alpha	.92

Note. Critical $r_{(220, .05)}$ =.11

Table I2

Corrected Item-Total Correlation and Cronbach's alpha for Warmth Rating (2 Items)

Item	Description	CICT (N = 220)
W1	Friendly	.84
W2	Warm	.84
	Alpha	.91

Note. Critical $\mathrm{r}_{(220, .05)}$ =.11

Table I3

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Competence Manipulation on Competence and Warmth Rating

Variable	High competence (n =110)	Low competence (n = 110)	$F(1, 218)$	p	η^2
	M (SD)	M (SD)			
Competence Rating	5.89 (0.68)	3.49 (1.01)	426.49	.00	.662
Warmth Rating	4.00 (1.65)	4.32 (1.62)	2.15	.14	.010

Table I4

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Warmth Manipulation on Competence and Warmth Rating

Variable	High warmth (n =110)	Low warmth (n = 110)	$F(1, 218)$	p	η^2
	M (SD)	M (SD)			
Competence Rating	4.62 (1.56)	4.76 (1.39)	0.50	.48	.002
Warmth Rating	5.45 (0.95)	2.86 (1.04)	374.21	.00	.632

Manipulation Checks for Study 2

Table I5

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Mindset Manipulation

Variable	Cooperative (n =256)	Competitive (n = 256)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
Level of threat rating	3.33 (1.42)	3.59 (1.40)	4.27	.039	.01

Table I6

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Competence Manipulation on Competence and Warmth Rating

Variable	High competence condition (n =256)	Low competence condition (n = 256)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
Competence rating	5.13 (0.93)	4.31 (1.11)	83.49	.00	.14
Warmth rating	4.35 (0.94)	4.33 (1.15)	0.03	.86	.00

Table I7

Means, Standard Deviations, and One-Way Analysis of Variance for the Effect of Warmth Manipulation on Competence and Warmth Rating

Variable	High warmth condition (n =2560)	Low warmth condition (n = 256)	$F(1, 510)$	p	η^2
	M (SD)	M (SD)			
Competence rating	4.84 (1.08)	4.60 (1.11)	6.17	.01	.01
Warmth rating	4.63 (0.99)	4.06 (1.03)	41.08	.00	.07

Appendix J:

Model 1 Original Data LISREL Outputs

```
                              DATE: 11/23/2017
                                TIME:  8:53


                       L I S R E L  9.20 (STUDENT)

                                    BY

                      Karl G. Jьreskog & Dag Sьrbom



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 The following lines were read from file L:\1 Thesis\Thesis Study 1 data from DE\LISREL 6
APRIL\SYNTAX23.spl:

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CASES) 6 APRIL 2017 LISREL MODEL ONLY.LSF'
 SE
 4 5 1 2 3 6 /
 MO NX=4 NY=2 PH=SY,FR BE=SD,FI  GA=FU,FI PS=DI,FR
 FR GA(1,1) GA(1,2) GA(1,3) GA(1,4) GA(2,1) GA(2,2) GA(2,3) GA(2,4)
 PD
 OU PC RS FS SS SC PT EF MR MI ND=3

 TI study 1 model 1 Original data

                              Number of Input Variables  6
                              Number of Y - Variables    2
                              Number of X - Variables    4
                              Number of ETA - Variables  2
                              Number of KSI - Variables  4
                              Number of Observations   220


 Parameter Specifications

         GAMMA

                  CD          WD        CXWD         PJD
            --------    --------    --------    --------
  BLATANT          1           2           3           4
   SUBTLE          5           6           7           8

         PHI

                  CD          WD        CXWD         PJD
            --------    --------    --------    --------
       CD          9
       WD         10          11
     CXWD         12          13          14
      PJD         15          16          17          18

         PSI

             BLATANT      SUBTLE
            --------    --------
                  19          20
```

```
 Number of Iterations = 0

 LISREL Estimates (Maximum Likelihood)

        GAMMA

                  CD          WD        CXWD         PJD
            --------    --------    --------    --------
 BLATANT       0.519      -0.003      -0.277       0.013
             (0.153)     (0.158)     (0.216)     (0.004)
               3.389      -0.019      -1.281       3.263

  SUBTLE       0.122       0.169       0.041       0.013
             (0.110)     (0.113)     (0.156)     (0.003)
               1.105       1.492       0.264       4.282


        Covariance Matrix of Y and X

             BLATANT      SUBTLE          CD          WD        CXWD         PJD
            --------    --------    --------    --------    --------    --------
 BLATANT       0.708
  SUBTLE       0.041       0.386
      CD       0.095       0.035       0.251
      WD      -0.004       0.078        - -        0.251
    CXWD       0.029       0.059       0.126       0.126       0.188
     PJD       2.298       2.951      -0.025       2.381       1.200     198.770

        PHI

                  CD          WD        CXWD         PJD
            --------    --------    --------    --------
      CD       0.251
             (0.024)
              10.392

      WD        - -        0.251
             (0.017)     (0.024)
               0.000      10.392

    CXWD       0.126       0.126       0.188
             (0.017)     (0.017)     (0.018)
               7.348       7.348      10.392

     PJD      -0.025       2.381       1.200     198.770
             (0.481)     (0.507)     (0.424)    (19.127)
              -0.052       4.694       2.828      10.392


        PSI
        Note: This matrix is diagonal.

             BLATANT      SUBTLE
            --------    --------
               0.635       0.329
             (0.061)     (0.032)
              10.392      10.392


        Squared Multiple Correlations for Structural Equations

             BLATANT      SUBTLE
            --------    --------
               0.102       0.148


NOTE: R² for Structural Equatios are Hayduk's (2006) Blocked-Error R²

        Squared Multiple Correlations for Reduced Form

             BLATANT      SUBTLE
            --------    --------
               0.102       0.148
```

Log-likelihood Values

	Estimated Model	Saturated Model
Number of free parameters(t)	20	21
-2ln(L)	896.244	844.683
AIC (Akaike, 1974)*	936.244	886.683
BIC (Schwarz, 1978)*	1004.117	957.949

*LISREL uses AIC= 2t - 2ln(L) and BIC = tln(N)- 2ln(L)

Goodness-of-Fit Statistics

Degrees of Freedom for (C1)-(C2)	1
Maximum Likelihood Ratio Chi-Square (C1)	51.561 (P = 0.0000)
Browne's (1984) ADF Chi-Square (C2_NT)	45.965 (P = 0.0000)
Estimated Non-centrality Parameter (NCP)	50.561
90 Percent Confidence Interval for NCP	(30.644 ; 77.889)
Minimum Fit Function Value	0.234
Population Discrepancy Function Value (F0)	0.230
90 Percent Confidence Interval for F0	(0.139 ; 0.354)
Root Mean Square Error of Approximation (RMSEA)	0.479
90 Percent Confidence Interval for RMSEA	(0.373 ; 0.595)
P-Value for Test of Close Fit (RMSEA < 0.05)	0.000
Expected Cross-Validation Index (ECVI)	0.416
90 Percent Confidence Interval for ECVI	(0.326 ; 0.540)
ECVI for Saturated Model	0.191
ECVI for Independence Model	1.776
Chi-Square for Independence Model (15 df)	378.629
Normed Fit Index (NFI)	0.864
Parsimony Normed Fit Index (PNFI)	0.0576
Comparative Fit Index (CFI)	0.861
Incremental Fit Index (IFI)	0.866
Critical N (CN)	29.181
Root Mean Square Residual (RMR)	0.0456
Standardized RMR	0.0873
Goodness of Fit Index (GFI)	0.935
Parsimony Goodness of Fit Index (PGFI)	0.0445

Standardized Residuals

	BLATANT	SUBTLE	CD	WD	CXWD	PJD
BLATANT	0.000					
SUBTLE	5.680	- -				
CD	- -	- -	- -			
WD	- -	- -	- -	- -		
CXWD	- -	- -	- -	- -	- -	
PJD	0.000	- -	- -	- -	- -	- -

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = 0.000
Median Standardized Residual = 0.000
Largest Standardized Residual = 5.680

Largest Positive Standardized Residuals
Residual for SUBTLE and BLATANT 5.680

Standardized Solution

GAMMA

	CD	WD	CXWD	PJD
BLATANT	0.309	-0.002	-0.143	0.224
SUBTLE	0.098	0.137	0.029	0.286

Correlation Matrix of Y and X

	BLATANT	SUBTLE	CD	WD	CXWD	PJD
BLATANT	1.000					
SUBTLE	0.079	1.000				
CD	0.226	0.114	1.000			
WD	-0.009	0.249	- -	1.000		
CXWD	0.078	0.220	0.577	0.577	1.000	
PJD	0.194	0.337	-0.004	0.337	0.196	1.000

PSI
Note: This matrix is diagonal.

BLATANT	SUBTLE
0.898	0.852

Regression Matrix Y on X (Standardized)

	CD	WD	CXWD	PJD
BLATANT	0.309	-0.002	-0.143	0.224
SUBTLE	0.098	0.137	0.029	0.286

Total and Indirect Effects

Total Effects of X on Y

	CD	WD	CXWD	PJD
BLATANT	0.519	-0.003	-0.277	0.013
	(0.152)	(0.156)	(0.214)	(0.004)
	3.420	-0.019	-1.293	3.293
SUBTLE	0.122	0.169	0.041	0.013
	(0.109)	(0.112)	(0.154)	(0.003)
	1.115	1.506	0.266	4.322

BETA*BETA' is not Pos. Def., Stability Index cannot be Computed

Standardized Total and Indirect Effects

Standardized Total Effects of X on Y

	CD	WD	CXWD	PJD
BLATANT	0.309	-0.002	-0.143	0.224
SUBTLE	0.098	0.137	0.029	0.286

Time used 0.031 seconds

Appendix K:

Model 2 Original Data LISREL Outputs

```
                              DATE: 11/23/2017
                                TIME:  7:39


                         L I S R E L  9.20 (STUDENT)

                                      BY

                         Karl G. Jъreskog & Dag Sъrbom



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CASES) 6 APRIL 2017 LISREL MODEL ONLY.LSF'
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 MO NX=3 NY=3 PH=SY,FR BE=FU GA=FI PS=SY
 FR BE(1,3) BE(2,3) GA(1,1) GA(1,2) GA(1,3) GA(2,1) GA(2,2) GA(2,3) GA(3,1)
 FR GA(3,2) GA(3,3)
 PD
 OU PC RS FS SS SC PT EF MR MI ND=3

 TI alternative model pjd as mediator original data

                          Number of Input Variables  6
                          Number of Y - Variables    3
                          Number of X - Variables    3
                          Number of ETA - Variables  3
                          Number of KSI - Variables  3
                          Number of Observations   220

 Parameter Specifications

         BETA

           BLATANT     SUBTLE        PJD
          --------   --------   --------
  BLATANT         0          0          1
   SUBTLE         0          0          2
      PJD         0          0          0

         GAMMA

                CD         WD       CXWD
          --------   --------   --------
  BLATANT         3          4          5
   SUBTLE         6          7          8
      PJD         9         10         11

         PHI

                CD         WD       CXWD
          --------   --------   --------
       CD        12
       WD        13         14
     CXWD        15         16         17

         PSI

           BLATANT     SUBTLE        PJD
          --------   --------   --------
                18         19         20
```

```
Number of Iterations = 0

LISREL Estimates (Maximum Likelihood)

        BETA

              BLATANT     SUBTLE        PJD
             --------   --------   --------
 BLATANT        - -        - -        0.013
                                    (0.004)
                                      3.271

  SUBTLE        - -        - -        0.013
                                    (0.003)
                                      4.292

     PJD        - -        - -        - -


        GAMMA

                   CD         WD       CXWD
             --------   --------   --------
 BLATANT        0.519     -0.003     -0.277
              (0.153)    (0.157)    (0.216)
                3.397     -0.019     -1.284

  SUBTLE        0.122      0.169      0.041
              (0.110)    (0.113)    (0.155)
                1.107      1.495      0.265

     PJD       -0.273      9.309      0.345
              (2.543)    (2.543)    (3.596)
               -0.107      3.661      0.096


     Covariance Matrix of Y and X

              BLATANT     SUBTLE        PJD         CD         WD       CXWD
             --------   --------   --------   --------   --------   --------
 BLATANT        0.708
  SUBTLE        0.041      0.386
     PJD        2.298      2.951    198.770
      CD        0.095      0.035     -0.025      0.251
      WD       -0.004      0.078      2.381       - -       0.251
    CXWD        0.029      0.059      1.200      0.126      0.126      0.188

        PHI

                   CD         WD       CXWD
             --------   --------   --------
      CD        0.251
              (0.024)
               10.416

      WD        - -        0.251
              (0.017)    (0.024)
                0.000     10.416

    CXWD        0.126      0.126      0.188
              (0.017)    (0.017)    (0.018)
                7.365      7.365     10.416


        PSI
        Note: This matrix is diagonal.

              BLATANT     SUBTLE        PJD
             --------   --------   --------
                0.635      0.329    176.181
              (0.061)    (0.032)   (16.914)
               10.416     10.416     10.416
```

Squared Multiple Correlations for Structural Equations

BLATANT	SUBTLE	PJD
0.102	0.148	0.114

NOTE: Rฒ for Structural Equatios are Hayduk's (2006) Blocked-Error Rฒ

Log-likelihood Values

	Estimated Model	Saturated Model
Number of free parameters(t)	20	21
-2ln(L)	896.244	844.683
AIC (Akaike, 1974)*	936.244	886.683
BIC (Schwarz, 1978)*	1004.117	957.949

*LISREL uses AIC= 2t - 2ln(L) and BIC = tln(N)- 2ln(L)

Goodness-of-Fit Statistics

Degrees of Freedom for (C1)-(C2)	1
Maximum Likelihood Ratio Chi-Square (C1)	51.561 (P = 0.0000)
Browne's (1984) ADF Chi-Square (C2_NT)	45.965 (P = 0.0000)
Estimated Non-centrality Parameter (NCP)	50.561
90 Percent Confidence Interval for NCP	(30.644 ; 77.889)
Minimum Fit Function Value	0.234
Population Discrepancy Function Value (F0)	0.230
90 Percent Confidence Interval for F0	(0.139 ; 0.354)
Root Mean Square Error of Approximation (RMSEA)	0.479
90 Percent Confidence Interval for RMSEA	(0.373 ; 0.595)
P-Value for Test of Close Fit (RMSEA < 0.05)	0.000
Expected Cross-Validation Index (ECVI)	0.416
90 Percent Confidence Interval for ECVI	(0.326 ; 0.540)
ECVI for Saturated Model	0.191
ECVI for Independence Model	1.776
Chi-Square for Independence Model (15 df)	378.629
Normed Fit Index (NFI)	0.864
Parsimony Normed Fit Index (PNFI)	0.0576
Comparative Fit Index (CFI)	0.861
Incremental Fit Index (IFI)	0.866
Critical N (CN)	29.181
Root Mean Square Residual (RMR)	0.0456
Standardized RMR	0.0873
Goodness of Fit Index (GFI)	0.935
Parsimony Goodness of Fit Index (PGFI)	0.0445

Standardized Residuals

	BLATANT	SUBTLE	PJD	CD	WD	CXWD
BLATANT	0.000					
SUBTLE	11.052	- -				
PJD	- -	- -	- -			
CD	- -	- -	0.000	- -		
WD	- -	- -	- -	- -	- -	
CXWD	0.000	- -	- -	- -	- -	- -

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = 0.000
Median Standardized Residual = 0.000
Largest Standardized Residual = 11.052

Largest Positive Standardized Residuals
Residual for SUBTLE and BLATANT 11.052

Standardized Solution

BETA

	BLATANT	SUBTLE	PJD
BLATANT	- -	- -	0.224
SUBTLE	- -	- -	0.286
PJD	- -	- -	- -

GAMMA

	CD	WD	CXWD
BLATANT	0.309	-0.002	-0.143
SUBTLE	0.098	0.137	0.029
PJD	-0.010	0.331	0.011

Correlation Matrix of Y and X

	BLATANT	SUBTLE	PJD	CD	WD	CXWD
BLATANT	1.000					
SUBTLE	0.079	1.000				
PJD	0.194	0.337	1.000			
CD	0.226	0.114	-0.004	1.000		
WD	-0.009	0.249	0.337	- -	1.000	
CXWD	0.078	0.220	0.196	0.577	0.577	1.000

PSI
Note: This matrix is diagonal.

BLATANT	SUBTLE	PJD
0.898	0.852	0.886

Regression Matrix Y on X (Standardized)

	CD	WD	CXWD
BLATANT	0.307	0.072	-0.141
SUBTLE	0.095	0.231	0.032
PJD	-0.010	0.331	0.011

Total and Indirect Effects

Total Effects of X on Y

	CD	WD	CXWD
BLATANT	0.515	0.121	-0.273
	(0.155)	(0.155)	(0.220)
	3.316	0.780	-1.241
SUBTLE	0.118	0.286	0.045
	(0.114)	(0.114)	(0.161)
	1.040	2.521	0.283
PJD	-0.273	9.309	0.345
	(2.525)	(2.525)	(3.571)
	-0.108	3.686	0.097

Indirect Effects of X on Y

	CD	WD	CXWD
BLATANT	-0.004	0.124	0.005
	(0.034)	(0.051)	(0.048)
	-0.108	2.456	0.097
SUBTLE	-0.003	0.117	0.004
	(0.032)	(0.042)	(0.045)
	-0.108	2.805	0.097
PJD	- -	- -	- -

Total Effects of Y on Y

	BLATANT	SUBTLE	PJD
BLATANT	- -	- -	0.013 (0.004) 3.293
SUBTLE	- -	- -	0.013 (0.003) 4.322
PJD	- -	- -	- -

Largest Eigenvalue of B*B' (Stability Index) is 0.000

Standardized Total and Indirect Effects

Standardized Total Effects of X on Y

	CD	WD	CXWD
BLATANT	0.307	0.072	-0.141
SUBTLE	0.095	0.231	0.032
PJD	-0.010	0.331	0.011

Standardized Indirect Effects of X on Y

	CD	WD	CXWD
BLATANT	-0.002	0.074	0.002
SUBTLE	-0.003	0.095	0.003
PJD	- -	- -	- -

Standardized Total Effects of Y on Y

	BLATANT	SUBTLE	PJD
BLATANT	- -	- -	0.224
SUBTLE	- -	- -	0.286
PJD	- -	- -	- -

Time used 0.062 seconds

Appendix L:

Model 4 Original Data LISREL Outputs

```
                                DATE: 11/23/2017
                                  TIME:  8:31


                          L I S R E L  9.20 (STUDENT)

                                       BY

                         Karl G. Jбreskog & Dag Sбrbom


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 The following lines were read from file L:\1 Thesis\Thesis Study 1 data from DE\LISREL 6
APRIL\SYNTAX18.spl:

 TI Study 2 full model
 DA NI=21 NO=0 MA=CM
 RA FI='L:\1 Thesis\Thesis Study 2 data from DE\LISREL MODEL\LISREL MODEL ORIGINAL WITH
COVARIATES.LSF'
 SE
 8 9 10 13 1 2 3 4 5 6 7 14 21 /
 MO NX=9 NY=4 PH=SY,FR BE=FU, FI GA=FI PS=SY
 FR BE(1,4) BE(2,4) BE(3,4) GA(1,1) GA(1,2) GA(1,3) GA(1,4) GA(1,5) GA(1,6)
 FR GA(1,7) GA(1,8) GA(2,1) GA(2,2) GA(2,3) GA(2,4) GA(2,5) GA(2,6) GA(2,7)
 FR GA(2,8) GA(2,9) GA(3,1) GA(3,2) GA(3,3) GA(3,4) GA(3,5) GA(3,6) GA(3,7)
 FR GA(3,8) GA(4,1) GA(4,2) GA(4,3) GA(4,4) GA(4,5) GA(4,6) GA(4,7)
 PD
 OU PC RS FS SS SC PT EF MR MI ND=3

 TI Study 2 full model

                           Number of Input Variables 13
                           Number of Y - Variables    4
                           Number of X - Variables    9
                           Number of ETA - Variables  4
                           Number of KSI - Variables  9
                           Number of Observations   512

 Parameter Specifications

         BETA

               Q1R_1      Q2R_1     SUBTLE         SS
            --------   --------   --------   --------
    Q1R_1          0          0          0          1
    Q2R_1          0          0          0          2
   SUBTLE          0          0          0          3
       SS          0          0          0          0

         GAMMA

                  CD         WD         MD       CXWD       CXMD       WXMD
            --------   --------   --------   --------   --------   --------
    Q1R_1          4          5          6          7          8          9
    Q2R_1         12         13         14         15         16         17
   SUBTLE         21         22         23         24         25         26
       SS         29         30         31         32         33         34

         GAMMA

              CXWXMD     PJDSDS   AECFAMIL
            --------   --------   --------
    Q1R_1         10         11          0
    Q2R_1         18         19         20
   SUBTLE         27         28          0
       SS         35          0          0
```

PHI

	CD	WD	MD	CXWD	CXMD	WXMD
CD	36					
WD	37	38				
MD	39	40	41			
CXWD	42	43	44	45		
CXMD	46	47	48	49	50	
WXMD	51	52	53	54	55	56
CXWXMD	57	58	59	60	61	62
PJDSDS	64	65	66	67	68	69
AECFAMIL	72	73	74	75	76	77

PHI

	CXWXMD	PJDSDS	AECFAMIL
CXWXMD	63		
PJDSDS	70	71	
AECFAMIL	78	79	80

PSI

Q1R_1	Q2R_1	SUBTLE	SS
81	82	83	84

Number of Iterations = 9

LISREL Estimates (Maximum Likelihood)

BETA

	Q1R_1	Q2R_1	SUBTLE	SS
Q1R_1	- -	- -	- -	-0.011 (0.019) -0.574
Q2R_1	- -	- -	- -	0.061 (0.032) 1.938
SUBTLE	- -	- -	- -	0.001 (0.015) 0.049
SS	- -	- -	- -	- -

GAMMA

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.146 (0.176) 0.828	0.035 (0.176) 0.198	0.008 (0.176) 0.048	0.154 (0.249) 0.619	-0.018 (0.249) -0.073	0.014 (0.249) 0.057
Q2R_1	0.767 (0.293) 2.615	0.182 (0.293) 0.621	0.092 (0.294) 0.315	-0.696 (0.415) -1.675	-0.251 (0.414) -0.607	0.051 (0.415) 0.122
SUBTLE	0.166 (0.136) 1.220	-0.046 (0.136) -0.340	0.074 (0.136) 0.545	0.081 (0.192) 0.421	-0.156 (0.192) -0.812	-0.004 (0.193) -0.023
SS	-0.094 (0.412) -0.227	-0.250 (0.412) -0.606	-0.109 (0.412) -0.265	-0.172 (0.583) -0.295	0.141 (0.583) 0.241	0.500 (0.583) 0.857

```
         GAMMA

              CXWXMD     PJDSDS   AECFAMIL
            --------   --------   --------
   Q1R_1      -0.304      0.277       - -
             (0.351)    (0.048)
              -0.866      5.820

   Q2R_1       0.085      0.163      0.407
             (0.585)    (0.081)    (0.150)
               0.146      2.013      2.714

  SUBTLE      -0.178      0.284       - -
             (0.272)    (0.037)
              -0.654      7.712

      SS      -0.156       - -        - -
             (0.825)
              -0.189


 Covariance Matrix of Y and X

               Q1R_1      Q2R_1     SUBTLE         SS         CD         WD
            --------   --------   --------   --------   --------   --------
   Q1R_1       1.070
   Q2R_1       0.047      2.829
  SUBTLE       0.090      0.050      0.668
      SS      -0.080      0.327     -0.011      5.392
      CD       0.069      0.097      0.056     -0.037      0.250
      WD       0.042     -0.009      0.019     -0.031      0.000      0.250
      MD      -0.023      0.001     -0.017      0.043      0.000      0.000
    CXWD       0.062      0.007      0.043     -0.050      0.125      0.125
    CXMD       0.015      0.035      0.007      0.007      0.125      0.000
    WXMD       0.007      0.005      0.001      0.032      0.000      0.125
  CXWXMD       0.015      0.002      0.009     -0.001      0.063      0.063
  PJDSDS       0.291      0.134      0.280     -0.030      0.125      0.112
AECFAMIL      -0.021      0.084     -0.023     -0.006      0.000      0.012

         Covariance Matrix of Y and X

                  MD       CXWD       CXMD       WXMD     CXWXMD     PJDSDS
            --------   --------   --------   --------   --------   --------
      MD       0.250
    CXWD       0.000      0.188
    CXMD       0.125      0.063      0.188
    WXMD       0.125      0.063      0.063      0.188
  CXWXMD       0.063      0.094      0.094      0.094      0.110
  PJDSDS      -0.017      0.140      0.063      0.071      0.082      0.983
AECFAMIL      -0.006      0.010     -0.010     -0.002     -0.005     -0.089

         Covariance Matrix of Y and X

            AECFAMIL
            --------
AECFAMIL       0.250


         PHI

                  CD         WD         MD       CXWD       CXMD       WXMD
            --------   --------   --------   --------   --------   --------
      CD       0.250
             (0.016)
              15.859

      WD       0.000      0.250
             (0.011)    (0.016)
               0.000     15.859

      MD       0.000      0.000      0.250
             (0.011)    (0.011)    (0.016)
               0.000      0.000     15.859

    CXWD       0.125      0.125      0.000      0.188
             (0.011)    (0.011)    (0.010)    (0.012)
              11.214     11.214      0.000     15.859
```

```
    CXMD      0.125      0.000      0.125      0.063      0.188
            (0.011)    (0.010)    (0.011)    (0.009)    (0.012)
             11.214      0.000     11.214      7.092     15.859

    WXMD      0.000      0.125      0.125      0.063      0.063      0.188
            (0.010)    (0.011)    (0.011)    (0.009)    (0.009)    (0.012)
              0.000     11.214     11.214      7.092      7.092     15.859

  CXWXMD      0.063      0.063      0.063      0.094      0.094      0.094
            (0.008)    (0.008)    (0.008)    (0.008)    (0.008)    (0.008)
              7.929      7.929      7.929     12.284     12.284     12.284

  PJDSDS      0.125      0.112     -0.017      0.140      0.063      0.071
            (0.023)    (0.023)    (0.022)    (0.020)    (0.019)    (0.019)
              5.465      4.928     -0.747      6.951      3.237      3.656

AECFAMIL      0.000      0.012     -0.006      0.010     -0.010     -0.002
            (0.011)    (0.011)    (0.011)    (0.010)    (0.010)    (0.010)
              0.000      1.050     -0.526      1.011     -1.011     -0.202


        PHI

             CXWXMD     PJDSDS   AECFAMIL
           --------   --------   --------
  CXWXMD      0.110
            (0.007)
             15.859

  PJDSDS      0.082      0.983
            (0.015)    (0.062)
              5.451     15.859

AECFAMIL     -0.005     -0.089      0.250
            (0.007)    (0.022)    (0.016)
             -0.662     -3.953     15.859


        PSI
        Note: This matrix is diagonal.

             Q1R_1      Q2R_1     SUBTLE         SS
           --------   --------   --------   --------
              0.972      2.694      0.580      5.359
            (0.061)    (0.170)    (0.037)    (0.338)
             15.859     15.859     15.859     15.859


        Squared Multiple Correlations for Structural Equations

             Q1R_1      Q2R_1     SUBTLE         SS
           --------   --------   --------   --------
              0.091      0.048      0.131      0.006

NOTE: Rฒ for Structural Equatios are Hayduk's (2006) Blocked-Error Rฒ


                              Log-likelihood Values

                         Estimated Model          Saturated Model
                         ---------------          ---------------
Number of free parameters(t)          84                       91
-2ln(L)                        -1597.659                -1697.850
AIC (Akaike, 1974)*            -1429.659                -1515.850
BIC (Schwarz, 1978)*           -1073.640                -1130.163

*LISREL uses AIC= 2t - 2ln(L) and BIC = tln(N)- 2ln(L)


                           Goodness-of-Fit Statistics

Degrees of Freedom for (C1)-(C2)                      7
Maximum Likelihood Ratio Chi-Square (C1)              100.191 (P = 0.0000)
Browne's (1984) ADF Chi-Square (C2_NT)                106.774 (P = 0.0000)
```

Estimated Non-centrality Parameter (NCP) 93.191
90 Percent Confidence Interval for NCP (64.483 ; 129.344)

Minimum Fit Function Value 0.196
Population Discrepancy Function Value (F0) 0.182
90 Percent Confidence Interval for F0 (0.126 ; 0.253)
Root Mean Square Error of Approximation (RMSEA) 0.161
90 Percent Confidence Interval for RMSEA (0.134 ; 0.190)
P-Value for Test of Close Fit (RMSEA < 0.05) 0.000

Expected Cross-Validation Index (ECVI) 0.524
90 Percent Confidence Interval for ECVI (0.468 ; 0.594)
ECVI for Saturated Model 0.355
ECVI for Independence Model 5.974

Chi-Square for Independence Model (78 df) 3032.911

Normed Fit Index (NFI) 0.967
Non-Normed Fit Index (NNFI) 0.649
Parsimony Normed Fit Index (PNFI) 0.0868
Comparative Fit Index (CFI) 0.968
Incremental Fit Index (IFI) 0.969
Relative Fit Index (RFI) 0.632

Critical N (CN) 95.231

Root Mean Square Residual (RMR) 0.0525
Standardized RMR 0.0429
Goodness of Fit Index (GFI) 0.969
Adjusted Goodness of Fit Index (AGFI) 0.596
Parsimony Goodness of Fit Index (PGFI) 0.0745

Standardized Residuals

	Q1R_1	Q2R_1	SUBTLE	SS	CD	WD
Q1R_1	-0.004					
Q2R_1	4.366	0.016				
SUBTLE	6.884	4.254	0.000			
SS	0.128	0.130	0.165	- -		
CD	0.000	0.000	0.000	- -	- -	
WD	- -	- -	0.000	- -	0.000	- -
MD	- -	0.000	- -	- -	0.000	0.000
CXWD	0.000	0.000	0.000	- -	- -	- -
CXMD	0.000	0.000	0.000	0.000	- -	0.000
WXMD	- -	0.000	0.000	0.000	0.000	- -
CXWXMD	0.000	0.000	0.000	0.000	- -	- -
PJDSDS	-0.011	0.040	0.001	0.492	0.000	- -
AECFAMIL	-0.509	0.059	-0.585	0.669	0.000	- -

	MD	CXWD	CXMD	WXMD	CXWXMD	PJDSDS
MD	- -					
CXWD	0.000	- -				
CXMD	- -	- -	- -			
WXMD	- -	- -	- -	- -		
CXWXMD	- -	- -	- -	- -	- -	
PJDSDS	- -	- -	- -	- -	- -	- -
AECFAMIL	- -	- -	- -	- -	- -	- -

	AECFAMIL
AECFAMIL	- -

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = -0.585
Median Standardized Residual = 0.000
Largest Standardized Residual = 6.884

Largest Positive Standardized Residuals
Residual for Q2R_1 and Q1R_1 4.366
Residual for SUBTLE and Q1R_1 6.884
Residual for SUBTLE and Q2R_1 4.254

Standardized Solution

BETA

	Q1R_1	Q2R_1	SUBTLE	SS
Q1R_1	- -	- -	- -	-0.024
Q2R_1	- -	- -	- -	0.085
SUBTLE	- -	- -	- -	0.002
SS	- -	- -	- -	- -

GAMMA

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.071	0.017	0.004	0.065	-0.008	0.006
Q2R_1	0.228	0.054	0.028	-0.179	-0.065	0.013
SUBTLE	0.102	-0.028	0.045	0.043	-0.083	-0.002
SS	-0.020	-0.054	-0.024	-0.032	0.026	0.093

GAMMA

	CXWXMD	PJDSDS	AECFAMIL
Q1R_1	-0.097	0.266	- -
Q2R_1	0.017	0.096	0.121
SUBTLE	-0.072	0.344	- -
SS	-0.022	- -	- -

Correlation Matrix of Y and X

	Q1R_1	Q2R_1	SUBTLE	SS	CD	WD
Q1R_1	1.000					
Q2R_1	0.027	1.000				
SUBTLE	0.107	0.036	1.000			
SS	-0.033	0.084	-0.006	1.000		
CD	0.134	0.115	0.138	-0.032	1.000	
WD	0.081	-0.010	0.045	-0.027	0.000	1.000
MD	-0.043	0.001	-0.042	0.037	0.000	0.000
CXWD	0.139	0.010	0.122	-0.050	0.577	0.577
CXMD	0.034	0.048	0.019	0.007	0.577	0.000
WXMD	0.016	0.007	0.004	0.032	0.000	0.577
CXWXMD	0.045	0.003	0.032	-0.002	0.378	0.378
PJDSDS	0.284	0.080	0.345	-0.013	0.251	0.225
AECFAMIL	-0.041	0.100	-0.056	-0.005	0.000	0.047

Correlation Matrix of Y and X

	MD	CXWD	CXMD	WXMD	CXWXMD	PJDSDS
MD	1.000					
CXWD	0.000	1.000				
CXMD	0.577	0.333	1.000			
WXMD	0.577	0.333	0.333	1.000		
CXWXMD	0.378	0.655	0.655	0.655	1.000	
PJDSDS	-0.033	0.326	0.146	0.165	0.251	1.000
AECFAMIL	-0.023	0.045	-0.045	-0.009	-0.030	-0.179

Correlation Matrix of Y and X

	AECFAMIL
AECFAMIL	1.000

PSI
Note: This matrix is diagonal.

Q1R_1	Q2R_1	SUBTLE	SS
0.909	0.952	0.869	0.994

Regression Matrix Y on X (Standardized)

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.071	0.018	0.005	0.065	-0.008	0.004
Q2R_1	0.226	0.050	0.026	-0.182	-0.062	0.021
SUBTLE	0.102	-0.028	0.045	0.043	-0.083	-0.002
SS	-0.020	-0.054	-0.024	-0.032	0.026	0.093

Regression Matrix Y on X (Standardized)

	CXWXMD	PJDSDS	AECFAMIL
Q1R_1	-0.097	0.266	- -
Q2R_1	0.015	0.096	0.121
SUBTLE	-0.072	0.344	- -
SS	-0.022	- -	- -

Total and Indirect Effects

Total Effects of X on Y

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.147	0.038	0.010	0.156	-0.020	0.009
	(0.175)	(0.174)	(0.175)	(0.247)	(0.246)	(0.247)
	0.841	0.216	0.055	0.632	-0.080	0.035
Q2R_1	0.761	0.166	0.086	-0.706	-0.242	0.081
	(0.292)	(0.291)	(0.292)	(0.413)	(0.412)	(0.412)
	2.609	0.572	0.294	-1.709	-0.589	0.197
SUBTLE	0.166	-0.046	0.074	0.081	-0.156	-0.004
	(0.135)	(0.135)	(0.135)	(0.191)	(0.190)	(0.191)
	1.230	-0.344	0.549	0.424	-0.819	-0.022
SS	-0.094	-0.250	-0.109	-0.172	0.141	0.500
	(0.409)	(0.409)	(0.409)	(0.578)	(0.578)	(0.578)
	-0.229	-0.611	-0.268	-0.297	0.243	0.865

Total Effects of X on Y

	CXWXMD	PJDSDS	AECFAMIL
Q1R_1	-0.303	0.277	- -
	(0.348)	(0.047)	
	-0.868	5.872	
Q2R_1	0.076	0.163	0.407
	(0.582)	(0.080)	(0.149)
	0.130	2.031	2.738
SUBTLE	-0.178	0.284	- -
	(0.269)	(0.036)	
	-0.660	7.781	
SS	-0.156	- -	- -
	(0.818)		
	-0.191		

Indirect Effects of X on Y

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.001	0.003	0.001	0.002	-0.002	-0.005
	(0.005)	(0.006)	(0.005)	(0.007)	(0.007)	(0.011)
	0.213	0.420	0.243	0.264	-0.224	-0.481
Q2R_1	-0.006	-0.015	-0.007	-0.011	0.009	0.031
	(0.025)	(0.026)	(0.025)	(0.036)	(0.036)	(0.039)
	-0.228	-0.584	-0.265	-0.294	0.241	0.791

```
 SUBTLE      0.000       0.000       0.000       0.000       0.000       0.000
           (0.001)     (0.004)     (0.002)     (0.003)     (0.002)     (0.007)
            -0.049      -0.050      -0.049      -0.049       0.049       0.050

     SS       - -         - -         - -         - -         - -         - -


       Indirect Effects of X on Y

            CXWXMD      PJDSDS    AECFAMIL
          --------    --------    --------
  Q1R_1      0.002        - -         - -
           (0.009)
             0.181

  Q2R_1     -0.010        - -         - -
           (0.050)
            -0.190

 SUBTLE      0.000        - -         - -
           (0.002)
            -0.048

     SS       - -         - -         - -


       Total Effects of Y on Y

             Q1R_1       Q2R_1      SUBTLE          SS
          --------    --------    --------    --------
  Q1R_1       - -         - -         - -       -0.011
                                               (0.019)
                                                -0.579

  Q2R_1       - -         - -         - -        0.061
                                               (0.031)
                                                 1.956

 SUBTLE       - -         - -         - -        0.001
                                               (0.015)
                                                 0.050

     SS       - -         - -         - -         - -

  Largest Eigenvalue of B*B' (Stability Index) is   0.004

Standardized Total and Indirect Effects

       Standardized Total Effects of X on Y

                CD          WD          MD        CXWD        CXMD        WXMD
          --------    --------    --------    --------    --------    --------
  Q1R_1      0.071       0.018       0.005       0.065      -0.008       0.004
  Q2R_1      0.226       0.050       0.026      -0.182      -0.062       0.021
 SUBTLE      0.102      -0.028       0.045       0.043      -0.083      -0.002
     SS     -0.020      -0.054      -0.024      -0.032       0.026       0.093

       Standardized Total Effects of X on Y

            CXWXMD      PJDSDS    AECFAMIL
          --------    --------    --------
  Q1R_1     -0.097       0.266        - -
  Q2R_1      0.015       0.096       0.121
 SUBTLE     -0.072       0.344        - -
     SS     -0.022        - -         - -

       Standardized Indirect Effects of X on Y

                CD          WD          MD        CXWD        CXMD        WXMD
          --------    --------    --------    --------    --------    --------
  Q1R_1      0.000       0.001       0.001       0.001      -0.001      -0.002
  Q2R_1     -0.002      -0.005      -0.002      -0.003       0.002       0.008
 SUBTLE      0.000       0.000       0.000       0.000       0.000       0.000
     SS       - -         - -         - -         - -         - -         - -
```

Standardized Indirect Effects of X on Y

	CXWXMD	PJDSDS	AECFAMIL
Q1R_1	0.001	- -	- -
Q2R_1	-0.002	- -	- -
SUBTLE	0.000	- -	- -
SS	- -	- -	- -

Standardized Total Effects of Y on Y

	Q1R_1	Q2R_1	SUBTLE	SS
Q1R_1	- -	- -	- -	-0.024
Q2R_1	- -	- -	- -	0.085
SUBTLE	- -	- -	- -	0.002
SS	- -	- -	- -	- -

Time used 0.094 seconds

Appendix M:

Model 5 Original Data LISREL Outputs

```
                              DATE: 11/23/2017
                                TIME:  9:44


                              L I S R E L  8.72

                                    BY

                         Karl G. J”reskog & Dag S”rbom



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 The following lines were read from file I:\1 Thesis\Thesis Study 2 data from DE\LISREL
MODEL\SYNTAX51.spl:

 TI Study 2 probation model
 DA NI=22 NO=0 MA=CM
 RA FI='I:\1 Thesis\Thesis Study 2 data from DE\LISREL MODEL\LISREL MODEL ORIGINAL WITH
COVARIATES V2.psf'
 SE
 11 12 13 1 2 3 4 5 6 7 14 15 16 17 18 19 22 /
 MO NX=14 NY=3 PH=SY,FR BE=FU GA=FI PS=SY
 FR BE(1,3) BE(2,3) GA(1,1) GA(1,2) GA(1,3) GA(1,4) GA(1,5) GA(1,6) GA(1,7)
 FR GA(1,8) GA(1,9) GA(1,11) GA(1,14) GA(2,1) GA(2,2) GA(2,3) GA(2,4) GA(2,5)
 FR GA(2,6) GA(2,7) GA(2,8) GA(2,10) GA(2,12) GA(2,13) GA(2,14) GA(3,1) GA(3,2)
 FR GA(3,3) GA(3,4) GA(3,5) GA(3,6) GA(3,7)
 PD
 OU  RS FS SS SC PT EF MR MI ND=3

 TI

                           Number of Input Variables 22
                           Number of Y - Variables    3
                           Number of X - Variables   14
                           Number of ETA - Variables  3
                           Number of KSI - Variables 14
                           Number of Observations   512

 Parameter Specifications

         BETA

               Q6_1       Q7_1         SS
           --------   --------   --------
    Q6_1          0          0          1
    Q7_1          0          0          2
      SS          0          0          0

         GAMMA

                 Cd         Wd         Md       CxWd       CxMd       WxMd
           --------   --------   --------   --------   --------   --------
    Q6_1          3          4          5          6          7          8
    Q7_1         14         15         16         17         18         19
      SS         26         27         28         29         30         31

         GAMMA

             CxWxMd     PJDSDS        AGE     Female        Soc      Human
           --------   --------   --------   --------   --------   --------
    Q6_1          9         10         11          0         12          0
    Q7_1         20         21          0         22          0         23
      SS         32          0          0          0          0          0
```

GAMMA

	Indus	Biz
Q6_1	0	13
Q7_1	24	25
SS	0	0

PHI

	Cd	Wd	Md	CxWd	CxMd	WxMd
Cd	33					
Wd	34	35				
Md	36	37	38			
CxWd	39	40	41	42		
CxMd	43	44	45	46	47	
WxMd	48	49	50	51	52	53
CxWxMd	54	55	56	57	58	59
PJDSDS	61	62	63	64	65	66
AGE	69	70	71	72	73	74
Female	78	79	80	81	82	83
Soc	88	89	90	91	92	93
Human	99	100	101	102	103	104
Indus	111	112	113	114	115	116
Biz	124	125	126	127	128	129

PHI

	CxWxMd	PJDSDS	AGE	Female	Soc	Human
CxWxMd	60					
PJDSDS	67	68				
AGE	75	76	77			
Female	84	85	86	87		
Soc	94	95	96	97	98	
Human	105	106	107	108	109	110
Indus	117	118	119	120	121	122
Biz	130	131	132	133	134	135

PHI

	Indus	Biz
Indus	123	
Biz	136	137

PSI

Q6_1	Q7_1	SS
138	139	140

ALPHA

Q6_1	Q7_1	SS
141	142	143

```
Number of Iterations =  3

LISREL Estimates (Maximum Likelihood)

        BETA

               Q6_1       Q7_1         SS
            --------   --------   --------
    Q6_1       - -        - -       0.081
                                  (0.027)
                                    2.960

    Q7_1       - -        - -      -0.006
                                  (0.028)
                                   -0.196

      SS       - -        - -        - -


        GAMMA

                 Cd         Wd         Md       CxWd       CxMd       WxMd
            --------   --------   --------   --------   --------   --------
    Q6_1      0.540      0.350      0.311     -0.246     -0.513     -0.474
            (0.255)    (0.255)    (0.255)    (0.362)    (0.359)    (0.361)
              2.118      1.369      1.220     -0.681     -1.427     -1.313

    Q7_1      0.250     -0.056      0.151      0.212     -0.084      0.051
            (0.262)    (0.262)    (0.262)    (0.372)    (0.371)    (0.371)
              0.954     -0.212      0.575      0.571     -0.226      0.136

      SS     -0.094     -0.250     -0.109     -0.172      0.141      0.500
            (0.415)    (0.415)    (0.415)    (0.587)    (0.587)    (0.587)
             -0.226     -0.602     -0.264     -0.293      0.240      0.852


        GAMMA

             CxWxMd     PJDSDS        AGE     Female        Soc      Human
            --------   --------   --------   --------   --------   --------
    Q6_1      0.603     -0.101      0.099       - -       0.152        - -
            (0.509)    (0.069)    (0.035)               (0.166)
              1.185     -1.461      2.877                 0.919

    Q7_1     -0.080      0.171        - -     -0.435        - -     -0.209
            (0.523)    (0.071)               (0.143)               (0.180)
             -0.153      2.410                -3.044                -1.163

      SS     -0.156        - -        - -       - -         - -        - -
            (0.830)
             -0.188


        GAMMA

              Indus        Biz
            --------   --------
    Q6_1       - -      -0.297
                       (0.149)
                        -1.990

    Q7_1     -0.844      0.318
            (0.391)    (0.152)
             -2.160      2.094

      SS       - -        - -
```

Covariance Matrix of Y and X

	Q6_1	Q7_1	SS	Cd	Wd	Md
Q6_1	2.149					
Q7_1	-0.029	2.316				
SS	0.416	-0.048	5.392			
Cd	0.055	0.097	-0.037	0.250		
Wd	0.022	0.038	-0.031	0.000	0.250	
Md	-0.006	0.023	0.043	0.000	0.000	0.250
CxWd	0.037	0.087	-0.050	0.125	0.125	0.000
CxMd	0.012	0.050	0.007	0.125	0.000	0.125
WxMd	-0.004	0.036	0.032	0.000	0.125	0.125
CxWxMd	0.016	0.046	-0.001	0.063	0.063	0.063
PJDSDS	-0.063	0.231	-0.030	0.125	0.112	-0.017
AGE	0.341	-0.025	0.003	-0.064	0.040	-0.046
Female	0.002	-0.098	0.003	-0.009	-0.009	-0.005
Soc	0.062	-0.018	-0.002	0.004	-0.014	-0.002
Human	0.011	-0.068	0.004	-0.012	0.004	0.008
Indus	0.001	-0.023	-0.001	0.008	0.000	0.002
Biz	-0.092	0.111	-0.001	0.006	0.006	-0.006

Covariance Matrix of Y and X

	CxWd	CxMd	WxMd	CxWxMd	PJDSDS	AGE
CxWd	0.188					
CxMd	0.063	0.188				
WxMd	0.063	0.063	0.188			
CxWxMd	0.094	0.094	0.094	0.110		
PJDSDS	0.140	0.063	0.071	0.082	0.983	
AGE	-0.053	-0.055	-0.008	-0.029	0.024	3.467
Female	-0.020	-0.006	-0.010	-0.014	-0.013	0.060
Soc	0.004	0.004	-0.010	0.004	-0.020	-0.015
Human	-0.005	-0.009	0.011	-0.001	-0.024	-0.054
Indus	0.002	0.010	0.000	0.004	0.006	-0.030
Biz	0.000	-0.002	0.000	-0.003	0.039	-0.031

Covariance Matrix of Y and X

	Female	Soc	Human	Indus	Biz
Female	0.215				
Soc	0.002	0.195			
Human	0.012	-0.057	0.169		
Indus	-0.006	-0.008	-0.007	0.030	
Biz	0.003	-0.106	-0.086	-0.012	0.240

PHI

	Cd	Wd	Md	CxWd	CxMd	WxMd
Cd	0.250					
	(0.016)					
	15.764					
Wd	0.000	0.250				
	(0.011)	(0.016)				
	0.000	15.764				
Md	0.000	0.000	0.250			
	(0.011)	(0.011)	(0.016)			
	0.000	0.000	15.764			
CxWd	0.125	0.125	0.000	0.188		
	(0.011)	(0.011)	(0.010)	(0.012)		
	11.147	11.147	0.000	15.764		
CxMd	0.125	0.000	0.125	0.063	0.188	
	(0.011)	(0.010)	(0.011)	(0.009)	(0.012)	
	11.147	0.000	11.147	7.050	15.764	
WxMd	0.000	0.125	0.125	0.063	0.063	0.188
	(0.010)	(0.011)	(0.011)	(0.009)	(0.009)	(0.012)
	0.000	11.147	11.147	7.050	7.050	15.764

CxWxMd	0.063	0.063	0.063	0.094	0.094	0.094
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
	7.882	7.882	7.882	12.211	12.211	12.211
PJDSDS	0.125	0.112	-0.017	0.140	0.063	0.071
	(0.023)	(0.023)	(0.022)	(0.020)	(0.019)	(0.020)
	5.432	4.898	-0.742	6.909	3.218	3.634
AGE	-0.064	0.040	-0.046	-0.053	-0.055	-0.008
	(0.042)	(0.042)	(0.042)	(0.036)	(0.036)	(0.036)
	-1.524	0.952	-1.105	-1.454	-1.508	-0.214
Female	-0.009	-0.009	-0.005	-0.020	-0.006	-0.010
	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)
	-0.846	-0.846	-0.470	-2.216	-0.706	-1.139
Soc	0.004	-0.014	-0.002	0.004	0.004	-0.010
	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)
	0.394	-1.378	-0.197	0.455	0.455	-1.137
Human	-0.012	0.004	0.008	-0.005	-0.009	0.011
	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)
	-1.270	0.424	0.848	-0.612	-1.100	1.344
Indus	0.008	0.000	0.002	0.002	0.010	0.000
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
	1.994	0.000	0.500	0.578	2.866	0.000
Biz	0.006	0.006	-0.006	0.000	-0.002	0.000
	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)	(0.010)
	0.533	0.533	-0.533	0.000	-0.205	0.000

PHI

	CxWxMd	PJDSDS	AGE	Female	Soc	Human
CxWxMd	0.110					
	(0.007)					
	15.764					
PJDSDS	0.082	0.983				
	(0.015)	(0.062)				
	5.418	15.764				
AGE	-0.029	0.024	3.467			
	(0.028)	(0.083)	(0.220)			
	-1.043	0.295	15.764			
Female	-0.014	-0.013	0.060	0.215		
	(0.007)	(0.021)	(0.039)	(0.014)		
	-2.019	-0.646	1.553	15.764		
Soc	0.004	-0.020	-0.015	0.002	0.195	
	(0.007)	(0.020)	(0.037)	(0.009)	(0.012)	
	0.596	-1.003	-0.410	0.263	15.764	
Human	-0.001	-0.024	-0.054	0.012	-0.057	0.169
	(0.006)	(0.018)	(0.034)	(0.009)	(0.009)	(0.011)
	-0.240	-1.327	-1.574	1.409	-6.690	15.764
Indus	0.004	0.006	-0.030	-0.006	-0.008	-0.007
	(0.003)	(0.008)	(0.015)	(0.004)	(0.003)	(0.003)
	1.510	0.711	-2.083	-1.635	-2.394	-2.085
Biz	-0.003	0.039	-0.031	0.003	-0.106	-0.086
	(0.007)	(0.022)	(0.041)	(0.010)	(0.011)	(0.010)
	-0.403	1.781	-0.756	0.260	-9.801	-8.732

```
     PHI

           Indus        Biz
        --------   --------
 Indus     0.030
         (0.002)
          15.764

   Biz    -0.012      0.240
         (0.004)    (0.015)
          -3.224     15.764


     PSI
     Note: This matrix is diagonal.

            Q6_1       Q7_1         SS
        --------   --------   --------
           2.007      2.126      5.359
         (0.127)    (0.135)    (0.340)
          15.764     15.764     15.764


     Squared Multiple Correlations for Structural Equations

            Q6_1       Q7_1         SS
        --------   --------   --------
           0.066      0.082      0.006
```

```
                         Goodness of Fit Statistics

                            Degrees of Freedom = 13
              Minimum Fit Function Chi-Square = 47.859 (P = 0.000)
      Normal Theory Weighted Least Squares Chi-Square = 46.797 (P = 0.000)
               Estimated Non-centrality Parameter (NCP) = 33.797
           90 Percent Confidence Interval for NCP = (16.585 ; 58.588)

                     Minimum Fit Function Value = 0.0937
              Population Discrepancy Function Value (F0) = 0.0680
            90 Percent Confidence Interval for F0 = (0.0334 ; 0.118)
            Root Mean Square Error of Approximation (RMSEA) = 0.0723
          90 Percent Confidence Interval for RMSEA = (0.0507 ; 0.0952)
             P-Value for Test of Close Fit (RMSEA < 0.05) = 0.0454

                Expected Cross-Validation Index (ECVI) = 0.726
           90 Percent Confidence Interval for ECVI = (0.657 ; 0.742)
                      ECVI for Saturated Model = 0.616
                     ECVI for Independence Model = 5.602

    Chi-Square for Independence Model with 136 Degrees of Freedom = 2750.427
                         Independence AIC = 2784.427
                             Model AIC = 360.797
                           Saturated AIC = 306.000
                         Independence CAIC = 2873.478
                            Model CAIC = 1183.214
                          Saturated CAIC = 1107.464

                        Normed Fit Index (NFI) = 0.983
                     Non-Normed Fit Index (NNFI) = 0.861
                  Parsimony Normed Fit Index (PNFI) = 0.0939
                     Comparative Fit Index (CFI) = 0.987
                     Incremental Fit Index (IFI) = 0.987
                       Relative Fit Index (RFI) = 0.818

                          Critical N (CN) = 296.645


                 Root Mean Square Residual (RMR) = 0.0468
                          Standardized RMR = 0.0235
                     Goodness of Fit Index (GFI) = 0.989
                Adjusted Goodness of Fit Index (AGFI) = 0.875
               Parsimony Goodness of Fit Index (PGFI) = 0.0841
```

```
        Standardized Residuals

                  Q6_1       Q7_1         SS         Cd         Wd         Md
               --------   --------   --------   --------   --------   --------
     Q6_1        1.075
     Q7_1        4.969      0.982
       SS        1.075     -0.982       - -
       Cd         - -        - -        - -        - -
       Wd         - -        - -        - -        - -        - -
       Md         - -        - -        - -        - -        - -        - -
     CxWd         - -        - -        - -        - -        - -        - -
     CxMd         - -        - -        - -        - -        - -        - -
     WxMd         - -        - -        - -        - -        - -        - -
   CxWxMd         - -        - -        - -        - -        - -        - -
   PJDSDS        0.507     -0.507      0.507       - -        - -        - -
      AGE        1.585      0.742      1.585       - -        - -        - -
   Female       -0.037      0.803     -0.803       - -        - -        - -
      Soc       -0.650     -0.564     -0.650       - -        - -        - -
    Human       -0.720      0.710     -0.710       - -        - -        - -
    Indus        0.552     -3.788      3.788       - -        - -        - -
      Biz       -0.729      0.729     -0.729       - -        - -        - -

         Standardized Residuals

                  CxWd       CxMd       WxMd     CxWxMd     PJDSDS        AGE
               --------   --------   --------   --------   --------   --------
     CxWd         - -
     CxMd         - -        - -
     WxMd         - -        - -        - -
   CxWxMd         - -        - -        - -        - -
   PJDSDS         - -        - -        - -        - -        - -
      AGE         - -        - -        - -        - -        - -        - -
   Female         - -        - -        - -        - -        - -        - -
      Soc         - -        - -        - -        - -        - -        - -
    Human         - -        - -        - -        - -        - -        - -
    Indus         - -        - -        - -        - -        - -        - -
      Biz         - -        - -        - -        - -        - -        - -

         Standardized Residuals

                Female        Soc      Human      Indus        Biz
               --------   --------   --------   --------   --------
   Female         - -
      Soc         - -        - -
    Human         - -        - -        - -
    Indus         - -        - -        - -        - -
      Biz         - -        - -        - -        - -        - -

 Summary Statistics for Standardized Residuals

 Smallest Standardized Residual =   -3.788
   Median Standardized Residual =    0.000
  Largest Standardized Residual =    4.969


Largest Negative Standardized Residuals
 Residual for    Indus and     Q7_1  -3.788
 Largest Positive Standardized Residuals
 Residual for     Q7_1 and     Q6_1   4.969
 Residual for    Indus and       SS   3.788



 Standardized Solution

         BETA

                  Q6_1       Q7_1         SS
               --------   --------   --------
     Q6_1         - -        - -       0.129
     Q7_1         - -        - -      -0.008
       SS         - -        - -        - -
```

GAMMA

	Cd	Wd	Md	CxWd	CxMd	WxMd
Q6_1	0.184	0.119	0.106	-0.073	-0.152	-0.140
Q7_1	0.082	-0.018	0.050	0.060	-0.024	0.014
SS	-0.020	-0.054	-0.024	-0.032	0.026	0.093

GAMMA

	CxWxMd	PJDSDS	AGE	Female	Soc	Human
Q6_1	0.136	-0.068	0.126	- -	0.046	- -
Q7_1	-0.017	0.112	- -	-0.132	- -	-0.057
SS	-0.022	- -	- -	- -	- -	- -

GAMMA

	Indus	Biz
Q6_1	- -	-0.099
Q7_1	-0.097	0.102
SS	- -	- -

Correlation Matrix of Y and X

	Q6_1	Q7_1	SS	Cd	Wd	Md
Q6_1	1.000					
Q7_1	-0.013	1.000				
SS	0.122	-0.014	1.000			
Cd	0.075	0.127	-0.032	1.000		
Wd	0.029	0.050	-0.027	0.000	1.000	
Md	-0.008	0.030	0.037	0.000	0.000	1.000
CxWd	0.059	0.132	-0.050	0.577	0.577	0.000
CxMd	0.018	0.076	0.007	0.577	0.000	0.577
WxMd	-0.006	0.055	0.032	0.000	0.577	0.577
CxWxMd	0.032	0.091	-0.002	0.378	0.378	0.378
PJDSDS	-0.044	0.153	-0.013	0.251	0.225	-0.033
AGE	0.125	-0.009	0.001	-0.069	0.043	-0.050
Female	0.004	-0.139	0.003	-0.038	-0.038	-0.021
Soc	0.096	-0.027	-0.002	0.018	-0.062	-0.009
Human	0.019	-0.109	0.005	-0.057	0.019	0.038
Indus	0.002	-0.087	-0.001	0.090	0.000	0.022
Biz	-0.128	0.149	-0.001	0.024	0.024	-0.024

Correlation Matrix of Y and X

	CxWd	CxMd	WxMd	CxWxMd	PJDSDS	AGE
CxWd	1.000					
CxMd	0.333	1.000				
WxMd	0.333	0.333	1.000			
CxWxMd	0.655	0.655	0.655	1.000		
PJDSDS	0.326	0.146	0.165	0.251	1.000	
AGE	-0.065	-0.068	-0.010	-0.047	0.013	1.000
Female	-0.100	-0.032	-0.051	-0.091	-0.029	0.070
Soc	0.020	0.020	-0.051	0.027	-0.045	-0.018
Human	-0.027	-0.049	0.060	-0.011	-0.060	-0.071
Indus	0.026	0.130	0.000	0.068	0.032	-0.094
Biz	0.000	-0.009	0.000	-0.018	0.080	-0.034

Correlation Matrix of Y and X

	Female	Soc	Human	Indus	Biz
Female	1.000				
Soc	0.012	1.000			
Human	0.063	-0.315	1.000		
Indus	-0.074	-0.108	-0.094	1.000	
Biz	0.012	-0.489	-0.426	-0.146	1.000

```
 PSI
      Note: This matrix is diagonal.

            Q6_1       Q7_1         SS
        --------   --------   --------
           0.934      0.918      0.994

      Regression Matrix Y on X (Standardized)

               Cd         Wd         Md       CxWd       CxMd       WxMd
         --------   --------   --------   --------   --------   --------
   Q6_1     0.182      0.112      0.103     -0.077     -0.148     -0.128
   Q7_1     0.082     -0.018      0.050      0.061     -0.024      0.014
     SS    -0.020     -0.054     -0.024     -0.032      0.026      0.093

      Regression Matrix Y on X (Standardized)

           CxWxMd     PJDSDS        AGE     Female        Soc      Human
         --------   --------   --------   --------   --------   --------
   Q6_1     0.133     -0.068      0.126       - -       0.046       - -
   Q7_1    -0.017      0.112       - -      -0.132       - -      -0.057
     SS    -0.022       - -        - -        - -        - -        - -

      Regression Matrix Y on X (Standardized)

            Indus        Biz
         --------   --------
   Q6_1      - -      -0.099
   Q7_1    -0.097      0.102
     SS      - -        - -

 Total and Indirect Effects

      Total Effects of X on Y

               Cd         Wd         Md       CxWd       CxMd       WxMd
         --------   --------   --------   --------   --------   --------
   Q6_1     0.532      0.330      0.302     -0.260     -0.501     -0.433
          (0.257)    (0.258)    (0.257)    (0.365)    (0.363)    (0.364)
            2.070      1.279      1.175     -0.713     -1.383     -1.191

   Q7_1     0.251     -0.054      0.152      0.213     -0.085      0.048
          (0.262)    (0.262)    (0.262)    (0.372)    (0.371)    (0.371)
            0.956     -0.207      0.577      0.573     -0.228      0.129

     SS    -0.094     -0.250     -0.109     -0.172      0.141      0.500
          (0.415)    (0.415)    (0.415)    (0.587)    (0.587)    (0.587)
           -0.226     -0.602     -0.264     -0.293      0.240      0.852


      Total Effects of X on Y

           CxWxMd     PJDSDS        AGE     Female        Soc      Human
         --------   --------   --------   --------   --------   --------
   Q6_1     0.590     -0.101      0.099       - -       0.152       - -
          (0.513)    (0.069)    (0.035)               (0.166)
            1.150     -1.461      2.877                 0.919

   Q7_1    -0.079      0.171       - -      -0.435       - -      -0.209
          (0.523)    (0.071)               (0.143)               (0.180)
           -0.152      2.410                -3.044                -1.163

     SS    -0.156       - -        - -        - -        - -        - -
          (0.830)
           -0.188


      Total Effects of X on Y

            Indus        Biz
         --------   --------
   Q6_1      - -      -0.297
                     (0.149)
                      -1.990
```

```
 Q7_1     -0.844      0.318
          (0.391)    (0.152)
          -2.160      2.094

   SS       - -        - -

     Indirect Effects of X on Y

                 Cd         Wd         Md       CxWd       CxMd       WxMd
           --------   --------   --------   --------   --------   --------
 Q6_1      -0.008     -0.020     -0.009     -0.014      0.011      0.041
          (0.034)    (0.034)    (0.034)    (0.048)    (0.048)    (0.050)
           -0.225     -0.590     -0.263     -0.291      0.239      0.819

 Q7_1       0.001      0.001      0.001      0.001     -0.001     -0.003
          (0.004)    (0.007)    (0.004)    (0.006)    (0.005)    (0.014)
            0.148      0.187      0.157      0.163     -0.152     -0.191

   SS       - -        - -        - -        - -        - -        - -

     Indirect Effects of X on Y

             CxWxMd     PJDSDS        AGE     Female        Soc      Human
           --------   --------   --------   --------   --------   --------
 Q6_1      -0.013       - -        - -        - -        - -        - -
          (0.068)
           -0.188

 Q7_1       0.001       - -        - -        - -        - -        - -
          (0.006)
            0.136

   SS       - -        - -        - -        - -        - -        - -

     Indirect Effects of X on Y

              Indus        Biz
           --------   --------
 Q6_1       - -        - -

 Q7_1       - -        - -

   SS       - -        - -

     Total Effects of Y on Y

               Q6_1       Q7_1         SS
           --------   --------   --------
 Q6_1       - -        - -         0.081
                                  (0.027)
                                    2.960

 Q7_1       - -        - -        -0.006
                                  (0.028)
                                   -0.196

   SS       - -        - -         - -

  Largest Eigenvalue of B*B' (Stability Index) is   0.007

Standardized Total and Indirect Effects

     Standardized Total Effects of X on Y

                 Cd         Wd         Md       CxWd       CxMd       WxMd
           --------   --------   --------   --------   --------   --------
 Q6_1       0.182      0.112      0.103     -0.077     -0.148     -0.128
 Q7_1       0.082     -0.018      0.050      0.061     -0.024      0.014
   SS      -0.020     -0.054     -0.024     -0.032      0.026      0.093
```

Standardized Total Effects of X on Y

	CxWxMd	PJDSDS	AGE	Female	Soc	Human
Q6_1	0.133	-0.068	0.126	- -	0.046	- -
Q7_1	-0.017	0.112	- -	-0.132	- -	-0.057
SS	-0.022	- -	- -	- -	- -	- -

Standardized Total Effects of X on Y

	Indus	Biz
Q6_1	- -	-0.099
Q7_1	-0.097	0.102
SS	- -	- -

Standardized Indirect Effects of X on Y

	Cd	Wd	Md	CxWd	CxMd	WxMd
Q6_1	-0.003	-0.007	-0.003	-0.004	0.003	0.012
Q7_1	0.000	0.000	0.000	0.000	0.000	-0.001
SS	- -	- -	- -	- -	- -	- -

Standardized Indirect Effects of X on Y

	CxWxMd	PJDSDS	AGE	Female	Soc	Human
Q6_1	-0.003	- -	- -	- -	- -	- -
Q7_1	0.000	- -	- -	- -	- -	- -
SS	- -	- -	- -	- -	- -	- -

Standardized Indirect Effects of X on Y

	Indus	Biz
Q6_1	- -	- -
Q7_1	- -	- -
SS	- -	- -

Standardized Total Effects of Y on Y

	Q6_1	Q7_1	SS
Q6_1	- -	- -	0.129
Q7_1	- -	- -	-0.008
SS	- -	- -	- -

Time used: 0.374 Seconds

Appendix N:

Model 6 Original Data LISREL Outputs

```
                                DATE: 11/23/2017
                                  TIME:  8:39
                          L I S R E L  9.20 (STUDENT)
                                      BY
                         Karl G. Jъreskog & Dag Sъrbom

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                        Universal Copyright Convention.

 The following lines were read from file L:\1 Thesis\Thesis Study 1 data from DE\LISREL 6
APRIL\SYNTAX20.spl:

 TI alternative model for study 2 original data
 DA NI=21 NO=0 MA=CM
 RA FI='L:\1 Thesis\Thesis Study 2 data from DE\LISREL MODEL\LISREL MODEL ORIGINAL WITH
COVARIATES.LSF'
 SE
 8 9 10 14 1 2 3 4 5 6 7 21 /
 MO NX=8 PH=SY,FR NY=4 BE=FU GA=FI PS=SY
 FR BE(1,4) BE(2,4) BE(3,4) GA(1,1) GA(1,2) GA(1,3) GA(1,4) GA(1,5) GA(1,6)
 FR GA(1,7) GA(2,1) GA(2,2) GA(2,3) GA(2,4) GA(2,5) GA(2,6) GA(2,7) GA(2,8)
 FR GA(3,1) GA(3,2) GA(3,3) GA(3,4) GA(3,5) GA(3,6) GA(3,7) GA(4,1) GA(4,2)
 FR GA(4,3) GA(4,4) GA(4,5) GA(4,6) GA(4,7)
 PD
 OU PC RS FS SS SC PT EF MR MI ND=3
 TI alter 1 original data

                           Number of Input Variables 12
                           Number of Y - Variables    4
                           Number of X - Variables    8
                           Number of ETA - Variables  4
                           Number of KSI - Variables  8
                           Number of Observations   512

 Parameter Specifications

         BETA
               Q1R_1      Q2R_1     SUBTLE     PJDSDS
            --------   --------   --------   --------
    Q1R_1          0          0          0          1
    Q2R_1          0          0          0          2
   SUBTLE          0          0          0          3
   PJDSDS          0          0          0          0

         GAMMA
                  CD         WD         MD       CXWD       CXMD       WXMD
            --------   --------   --------   --------   --------   --------
    Q1R_1          4          5          6          7          8          9
    Q2R_1         11         12         13         14         15         16
   SUBTLE         19         20         21         22         23         24
   PJDSDS         26         27         28         29         30         31

         GAMMA
              CXWXMD   AECFAMIL
            --------   --------
    Q1R_1         10          0
    Q2R_1         17         18
   SUBTLE         25          0
   PJDSDS         32          0

         PHI
                  CD         WD         MD       CXWD       CXMD       WXMD
            --------   --------   --------   --------   --------   --------
       CD         33
       WD         34         35
       MD         36         37         38
     CXWD         39         40         41         42
     CXMD         43         44         45         46         47
     WXMD         48         49         50         51         52         53
   CXWXMD         54         55         56         57         58         59
 AECFAMIL         61         62         63         64         65         66
```

PHI

	CXWXMD	AECFAMIL
CXWXMD	60	
AECFAMIL	67	68

PSI

Q1R_1	Q2R_1	SUBTLE	PJDSDS
69	70	71	72

Number of Iterations = 4

LISREL Estimates (Maximum Likelihood)

BETA

	Q1R_1	Q2R_1	SUBTLE	PJDSDS
Q1R_1	- -	- -	- -	0.277 (0.048) 5.811
Q2R_1	- -	- -	- -	0.168 (0.079) 2.109
SUBTLE	- -	- -	- -	0.284 (0.037) 7.721
PJDSDS	- -	- -	- -	- -

GAMMA

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.147 (0.176) 0.835	0.038 (0.176) 0.214	0.009 (0.176) 0.053	0.156 (0.249) 0.628	-0.020 (0.248) -0.079	0.009 (0.249) 0.036
Q2R_1	0.760 (0.294) 2.585	0.166 (0.293) 0.566	0.087 (0.294) 0.295	-0.709 (0.416) -1.705	-0.243 (0.415) -0.585	0.080 (0.416) 0.192
SUBTLE	0.166 (0.136) 1.221	-0.046 (0.136) -0.342	0.074 (0.136) 0.545	0.081 (0.192) 0.421	-0.156 (0.192) -0.813	-0.004 (0.192) -0.021
PJDSDS	0.259 (0.164) 1.579	0.090 (0.164) 0.547	-0.316 (0.164) -1.926	0.339 (0.232) 1.459	0.127 (0.232) 0.548	0.363 (0.232) 1.563

GAMMA

	CXWXMD	AECFAMIL
Q1R_1	-0.303 (0.351) -0.862	- -
Q2R_1	0.077 (0.587) 0.132	0.418 (0.147) 2.836
SUBTLE	-0.178 (0.271) -0.655	- -
PJDSDS	0.020 (0.329) 0.062	- -

Covariance Matrix of Y and X

	Q1R_1	Q2R_1	SUBTLE	PJDSDS	CD	WD
Q1R_1	1.070					
Q2R_1	0.063	2.845				
SUBTLE	0.090	0.061	0.668			
PJDSDS	0.291	0.176	0.280	0.983		
CD	0.069	0.097	0.056	0.125	0.250	
WD	0.042	-0.009	0.019	0.112	0.000	0.250
MD	-0.023	0.001	-0.017	-0.017	0.000	0.000
CXWD	0.062	0.007	0.043	0.140	0.125	0.125
CXMD	0.015	0.035	0.007	0.063	0.125	0.000
WXMD	0.007	0.005	0.001	0.071	0.000	0.125
CXWXMD	0.015	0.002	0.009	0.082	0.063	0.063
AECFAMIL	0.005	0.102	0.003	0.004	0.000	0.012

Covariance Matrix of Y and X

	MD	CXWD	CXMD	WXMD	CXWXMD	AECFAMIL
MD	0.250					
CXWD	0.000	0.188				
CXMD	0.125	0.063	0.188			
WXMD	0.125	0.063	0.063	0.188		
CXWXMD	0.063	0.094	0.094	0.094	0.110	
AECFAMIL	-0.006	0.010	-0.010	-0.002	-0.005	0.250

PHI

	CD	WD	MD	CXWD	CXMD	WXMD
CD	0.250					
	(0.016)					
	15.875					
WD	0.000	0.250				
	(0.011)	(0.016)				
	0.000	15.875				
MD	0.000	0.000	0.250			
	(0.011)	(0.011)	(0.016)			
	0.000	0.000	15.875			
CXWD	0.125	0.125	0.000	0.188		
	(0.011)	(0.011)	(0.010)	(0.012)		
	11.225	11.225	0.000	15.875		
CXMD	0.125	0.000	0.125	0.063	0.188	
	(0.011)	(0.010)	(0.011)	(0.009)	(0.012)	
	11.225	0.000	11.225	7.099	15.875	
WXMD	0.000	0.125	0.125	0.063	0.063	0.188
	(0.010)	(0.011)	(0.011)	(0.009)	(0.009)	(0.012)
	0.000	11.225	11.225	7.099	7.099	15.875
CXWXMD	0.063	0.063	0.063	0.094	0.094	0.094
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
	7.937	7.937	7.937	12.296	12.296	12.296
AECFAMIL	0.000	0.012	-0.006	0.010	-0.010	-0.002
	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)	(0.010)
	0.000	1.051	-0.526	1.012	-1.012	-0.203

PHI

	CXWXMD	AECFAMIL
CXWXMD	0.110	
	(0.007)	
	15.875	
AECFAMIL	-0.005	0.250
	(0.007)	(0.016)
	-0.663	15.875

```
        PSI
        Note: This matrix is diagonal.

              Q1R_1      Q2R_1     SUBTLE     PJDSDS
           --------   --------   --------   --------
              0.973      2.714      0.580      0.852
            (0.061)    (0.171)    (0.037)    (0.054)
             15.875     15.875     15.875     15.875


        Squared Multiple Correlations for Structural Equations

              Q1R_1      Q2R_1     SUBTLE     PJDSDS
           --------   --------   --------   --------
              0.090      0.046      0.131      0.133

NOTE: Rฒ for Structural Equatios are Hayduk's (2006) Blocked-Error Rฒ


                              Log-likelihood Values

                       Estimated Model          Saturated Model
                       ---------------          ---------------
Number of free parameters(t)       72                       78
-2ln(L)                     -2943.704                -3063.692
AIC (Akaike, 1974)*         -2799.704                -2907.692
BIC (Schwarz, 1978)*        -2494.545                -2577.103

*LISREL uses AIC= 2t - 2ln(L) and BIC = tln(N)- 2ln(L)


                         Goodness-of-Fit Statistics

Degrees of Freedom for (C1)-(C2)                        6
Maximum Likelihood Ratio Chi-Square (C1)              119.988 (P = 0.0000)
Browne's (1984) ADF Chi-Square (C2_NT)                125.963 (P = 0.0000)

Estimated Non-centrality Parameter (NCP)              113.988
90 Percent Confidence Interval for NCP                (82.047 ; 153.362)

Minimum Fit Function Value                            0.234
Population Discrepancy Function Value (F0)            0.223
90 Percent Confidence Interval for F0                 (0.160 ; 0.300)
Root Mean Square Error of Approximation (RMSEA)       0.193
90 Percent Confidence Interval for RMSEA              (0.163 ; 0.223)
P-Value for Test of Close Fit (RMSEA < 0.05)          0.000
 Expected Cross-Validation Index (ECVI)                0.516
90 Percent Confidence Interval for ECVI               (0.453 ; 0.593)
ECVI for Saturated Model                              0.305
ECVI for Independence Model                           5.953
 Chi-Square for Independence Model (66 df)          3024.075
 Normed Fit Index (NFI)                                0.960
Non-Normed Fit Index (NNFI)                           0.576
Parsimony Normed Fit Index (PNFI)                     0.0873
Comparative Fit Index (CFI)                           0.961
Incremental Fit Index (IFI)                           0.962
Relative Fit Index (RFI)                              0.564

Critical N (CN)                                      72.599

Root Mean Square Residual (RMR)                       0.0559
Standardized RMR                                      0.0517
Goodness of Fit Index (GFI)                           0.961
Adjusted Goodness of Fit Index (AGFI)                 0.488
Parsimony Goodness of Fit Index (PGFI)                0.0739


        Standardized Residuals
              Q1R_1      Q2R_1     SUBTLE     PJDSDS         CD         WD
           --------   --------   --------   --------   --------   --------
   Q1R_1      0.000
   Q2R_1      4.223     -0.073
  SUBTLE      7.255      4.007      0.000
  PJDSDS      0.000     -0.538      0.000       - -
      CD      0.000       - -       0.000       - -        - -
      WD       - -      0.000       0.000      0.000      0.000       - -
```

MD	0.000	0.000	0.000	0.000	0.000	0.000
CXWD	0.000	- -	0.000	0.000	- -	- -
CXMD	0.000	- -	0.000	0.000	- -	0.000
WXMD	- -	0.000	0.000	- -	0.000	- -
CXWXMD	0.000	0.000	0.000	0.000	- -	- -
AECFAMIL	-1.689	-0.415	-2.016	-4.226	0.000	0.000

Standardized Residuals

	MD	CXWD	CXMD	WXMD	CXWXMD	AECFAMIL
MD	- -					
CXWD	0.000	- -				
CXMD	- -	- -	- -			
WXMD	- -	- -	- -	- -		
CXWXMD	- -	- -	- -	- -	- -	
AECFAMIL	0.000	0.000	0.000	0.000	0.000	- -

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = -4.226
Median Standardized Residual = 0.000
Largest Standardized Residual = 7.255

Largest Negative Standardized Residuals
Residual for AECFAMIL and PJDSDS -4.226
Largest Positive Standardized Residuals
Residual for Q2R_1 and Q1R_1 4.223
Residual for SUBTLE and Q1R_1 7.255
Residual for SUBTLE and Q2R_1 4.007

Standardized Solution

BETA

	Q1R_1	Q2R_1	SUBTLE	PJDSDS
Q1R_1	- -	- -	- -	0.265
Q2R_1	- -	- -	- -	0.099
SUBTLE	- -	- -	- -	0.344
PJDSDS	- -	- -	- -	- -

GAMMA

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.071	0.018	0.005	0.065	-0.008	0.004
Q2R_1	0.225	0.049	0.026	-0.182	-0.062	0.020
SUBTLE	0.102	-0.028	0.045	0.043	-0.083	-0.002
PJDSDS	0.131	0.045	-0.160	0.148	0.056	0.159

GAMMA

	CXWXMD	AECFAMIL
Q1R_1	-0.097	- -
Q2R_1	0.015	0.124
SUBTLE	-0.072	- -
PJDSDS	0.007	- -

Correlation Matrix of Y and X

	Q1R_1	Q2R_1	SUBTLE	PJDSDS	CD	WD
Q1R_1	1.000					
Q2R_1	0.036	1.000				
SUBTLE	0.107	0.044	1.000			
PJDSDS	0.283	0.105	0.345	1.000		
CD	0.134	0.115	0.138	0.251	1.000	
WD	0.081	-0.010	0.045	0.225	0.000	1.000
MD	-0.043	0.001	-0.042	-0.033	0.000	0.000
CXWD	0.139	0.010	0.122	0.326	0.577	0.577
CXMD	0.034	0.048	0.019	0.146	0.577	0.000
WXMD	0.016	0.007	0.004	0.165	0.000	0.577
CXWXMD	0.045	0.003	0.032	0.251	0.378	0.378
AECFAMIL	0.009	0.120	0.008	0.008	0.000	0.047

Correlation Matrix of Y and X

	MD	CXWD	CXMD	WXMD	CXWXMD	AECFAMIL
MD	1.000					
CXWD	0.000	1.000				
CXMD	0.577	0.333	1.000			
WXMD	0.577	0.333	0.333	1.000		
CXWXMD	0.378	0.655	0.655	0.655	1.000	
AECFAMIL	-0.023	0.045	-0.045	-0.009	-0.030	1.000

PSI

Note: This matrix is diagonal.

Q1R_1	Q2R_1	SUBTLE	PJDSDS
0.910	0.954	0.869	0.867

Regression Matrix Y on X (Standardized)

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.106	0.030	-0.038	0.105	0.007	0.046
Q2R_1	0.238	0.054	0.010	-0.168	-0.057	0.036
SUBTLE	0.147	-0.013	-0.010	0.094	-0.064	0.052
PJDSDS	0.131	0.045	-0.160	0.148	0.056	0.159

Regression Matrix Y on X (Standardized)

	CXWXMD	AECFAMIL
Q1R_1	-0.095	- -
Q2R_1	0.016	0.124
SUBTLE	-0.070	- -
PJDSDS	0.007	- -

Total and Indirect Effects

Total Effects of X on Y

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.219	0.062	-0.078	0.250	0.016	0.109
	(0.180)	(0.180)	(0.180)	(0.254)	(0.254)	(0.254)
	1.216	0.347	-0.434	0.983	0.061	0.430
Q2R_1	0.803	0.181	0.034	-0.653	-0.221	0.141
	(0.292)	(0.292)	(0.292)	(0.414)	(0.413)	(0.413)
	2.749	0.619	0.116	-1.577	-0.535	0.340
SUBTLE	0.240	-0.021	-0.016	0.177	-0.120	0.099
	(0.142)	(0.142)	(0.142)	(0.201)	(0.201)	(0.201)
	1.684	-0.146	-0.110	0.880	-0.595	0.492
PJDSDS	0.259	0.090	-0.316	0.339	0.127	0.363
	(0.163)	(0.163)	(0.163)	(0.231)	(0.231)	(0.231)
	1.591	0.551	-1.941	1.470	0.552	1.576

Total Effects of X on Y

	CXWXMD	AECFAMIL
Q1R_1	-0.297	- -
	(0.360)	
	-0.825	
Q2R_1	0.081	0.418
	(0.585)	(0.146)
	0.138	2.858
SUBTLE	-0.172	- -
	(0.285)	
	-0.604	
PJDSDS	0.020	- -
	(0.326)	
	0.063	

Indirect Effects of X on Y

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.072	0.025	-0.088	0.094	0.035	0.100
	(0.047)	(0.045)	(0.047)	(0.066)	(0.064)	(0.066)
	1.535	0.549	-1.842	1.426	0.550	1.522
Q2R_1	0.043	0.015	-0.053	0.057	0.021	0.061
	(0.034)	(0.028)	(0.037)	(0.047)	(0.040)	(0.048)
	1.274	0.533	-1.433	1.209	0.535	1.266
SUBTLE	0.074	0.026	-0.090	0.096	0.036	0.103
	(0.047)	(0.046)	(0.048)	(0.067)	(0.066)	(0.067)
	1.559	0.550	-1.883	1.445	0.551	1.544
PJDSDS	- -	- -	- -	- -	- -	- -

Indirect Effects of X on Y

	CXWXMD	AECFAMIL
Q1R_1	0.006	- -
	(0.090)	
	0.063	
Q2R_1	0.003	- -
	(0.055)	
	0.063	
SUBTLE	0.006	- -
	(0.093)	
	0.063	
PJDSDS	- -	- -

Total Effects of Y on Y

	Q1R_1	Q2R_1	SUBTLE	PJDSDS
Q1R_1	- -	- -	- -	0.277
				(0.047)
				5.857
Q2R_1	- -	- -	- -	0.168
				(0.079)
				2.126
SUBTLE	- -	- -	- -	0.284
				(0.036)
				7.782
PJDSDS	- -	- -	- -	- -

Largest Eigenvalue of B*B' (Stability Index) is 0.185

Standardized Total and Indirect Effects

Standardized Total Effects of X on Y

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.106	0.030	-0.038	0.105	0.007	0.046
Q2R_1	0.238	0.054	0.010	-0.168	-0.057	0.036
SUBTLE	0.147	-0.013	-0.010	0.094	-0.064	0.052
PJDSDS	0.131	0.045	-0.160	0.148	0.056	0.159

Standardized Total Effects of X on Y

	CXWXMD	AECFAMIL
Q1R_1	-0.095	- -
Q2R_1	0.016	0.124
SUBTLE	-0.070	- -
PJDSDS	0.007	- -

Standardized Indirect Effects of X on Y

	CD	WD	MD	CXWD	CXMD	WXMD
Q1R_1	0.035	0.012	-0.042	0.039	0.015	0.042
Q2R_1	0.013	0.004	-0.016	0.015	0.005	0.016
SUBTLE	0.045	0.016	-0.055	0.051	0.019	0.055
PJDSDS	- -	- -	- -	- -	- -	- -

Standardized Indirect Effects of X on Y

	CXWXMD	AECFAMIL
Q1R_1	0.002	- -
Q2R_1	0.001	- -
SUBTLE	0.002	- -
PJDSDS	- -	- -

Standardized Total Effects of Y on Y

	Q1R_1	Q2R_1	SUBTLE	PJDSDS
Q1R_1	- -	- -	- -	0.265
Q2R_1	- -	- -	- -	0.099
SUBTLE	- -	- -	- -	0.344
PJDSDS	- -	- -	- -	- -

Time used 0.062 seconds

VITA

Miss Vipavee Puttaravuttiporn was born on the 21st of January, 1980. She graduated from the Faculty of Architecture with a major in architecture at Chulalongkorn University in 2001 and received a Master of Arts, Product Design (Distinction) from Nottingham Trent University, Nottingham, UK in 2003 and a Master of Arts, Marketing (Commendation), from Kingston University, London, UK in 2005.

After the completion of her master's degrees, she has been working at The BRS, a Thailand-based marketing research company that has specialized in finance and the banking industry since 2006. She joined the Doctor of Philosophy Program in Psychology at Chulalongkorn University in 2012.